

Federal Aviation Administration

United States of America **NATIONAL AVAILABILATION**

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EXECUTIVE SUMMARY

Amidst an ever-changing operating environment, the United States continues our steadfast commitment to pursuing the highest levels of safety in the National Airspace System and contributing to global efforts to improve aviation safety. We recognize that aviation safety is a result of the combined efforts of all aviation stakeholders, both public and private. Across the U.S. Government, a number of departments and agencies play a role in establishing, maintaining, and overseeing civil aviation safety. The Federal Aviation Administration (FAA) is pleased to contribute to the implementation of the International Civil Aviation Organization's (ICAO) Global Aviation Safety Plan (GASP) by establishing the U.S. National Aviation Safety Plan (NASP) with the support of other U.S. Government agencies. The NASP is comprised of the plans, programs and other resources, which, together with the U.S. State Safety Program (U.S. SSP) document, create a holistic view of how the United States manages civil aviation safety. The NASP also allows us to provide even greater transparency into the multifaceted U.S. approach to aviation safety.

We trust that the U.S. NASP will serve as a valuable source of information about the U.S. civil aviation safety oversight system for the flying public, international civil aviation authorities, industry, and other stakeholders.



INTRODUCTION

The United States is committed to the management and continual improvement of our national civil aviation safety in accordance with the State Safety Policy and Objectives published in the <u>U.S. SSP</u> document. The United States has created the NASP to fulfill the goals and targets outlined in ICAO's GASP by communicating clearly to all stakeholders the U.S. Government's strategies for improving national civil aviation safety and providing this compendium as a resource to access more information about these strategies, initiatives, and programs.

OVERVIEW OF U.S. NASP

The U.S. NASP provides information on the U.S. National Airspace System^{*} and its operational picture as well as the strategic direction for the management of aviation safety. The NASP outlines the areas in which the U.S. Government is targeting civil aviation-related resources and helps inform aviation stakeholders of U.S. priority areas for the management of civil aviation safety.

U.S. NASP DEVELOPMENT

The FAA's Aviation Safety organization manages the NASP development, updates, and publication in coordination with the U.S. Government departments and agencies shown in Figure 1 and in consultation with other stakeholders.

Figure 1: U.S. NASP contributors

■ NASP Lead ■ NASP Content Contributors ■ NASP Review



^{*} The U.S. National Airspace System is a network of controlled and uncontrolled airspace, both domestic and oceanic. It also includes air navigation facilities, equipment and services; airports and landing areas; aeronautical charts, information and services; rules and regulations; procedures and technical information; and manpower and material. [Source: https://www.faa.gov/air_traffic/nas/]

RELATIONSHIP BETWEEN THE U.S. NASP AND THE U.S. SSP

The NASP is one of the key documents produced as part of the U.S. SSP documentation. The U.S. SSP document provides information describing HOW the U.S Government manages civil aviation safety, while the NASP focuses on WHAT the U.S. Government is managing in the U.S. National Airspace System, including the operational context as well as operational and other safety priorities. These are complementary, but each has a distinct focus. Neither the U.S. NASP nor the U.S. SSP document supersede any specific regulation, instruction, or order pertaining to specific rules or requirements.

Read the <u>U.S. SSP</u> document to learn more about the mechanisms and frameworks employed to identify and address specific activities that support the safe and efficient delivery of aviation activities.

U.S. CIVIL AVIATION OPERATIONAL OVERVIEW

The U.S. National Airspace System is the busiest and safest airspace system in the world, and this operational context is the backdrop for the civil aviation safety management content in the U.S. NASP. The following resources provide current and forecasted information on the U.S. National Airspace System:

• FAA Administrator's Fact Book

Provides statistics, data, and other information about aviation safety and the FAA's management of the nation's airspace system. Content covers the agency's air traffic, commercial space transportation, aircraft, airspace modernization, and drones.

• Air Traffic By The Numbers

This infographic is an easy-to-reference source for relevant facts and information about U.S. airspace and FAA Air Traffic Organization services.

• FAA Operations & Performance Data

Provides access to historical traffic counts, forecasts of aviation activity, and delay statistics.

<u>Aviation Data & Statistics</u>

An FAA-hosted collection of aviation data and statistics resources.

FAA Aviation Forecasts

The FAA tracks the trends and trajectories of U.S. airspace operations in the annual release of FAA Aviation Forecasts. The purpose of the forecasts is to predict future demand within the aviation industry. FAA develops the commercial aviation forecasts and assumptions from statistical (econometric) models that explain and incorporate emerging trends for the different segments of the industry.

US NASP VERSUS US SSP

Comparing the two types of documents

HOW the U.S. Government manages civil aviation safety
Describes how the United States meets the 11 ICAO SSP framework elements
Defines how the United States manages safety through: • A Regulatory Framework • Safety Policy, Objectives and Resources • Safety Risk Management • Safety Assurance • Safety Promotion
Describes additional activities that will help improve the U.S. SSP and respond to future safety challenges

Figure 2: Comparing the U.S. SSP document and U.S. NASP

PURPOSE

The U.S. NASP compiles existing U.S. Government plans and initiatives that contribute to describing the strategic direction for managing civil aviation safety in the United States. The U.S. NASP does not modify or supersede the content or activities contained in these plans and initiatives, but instead provides a complementary, informational resource of relevant materials. Through the provided web links within this plan, you will find U.S. Government information about civil aviation safety planning, priorities, targets, performance, and safety improvement efforts, together with their duration(s) and/or time period(s), where applicable. The content in the U.S. NASP will be updated regularly to reflect current information and practices.

RELATIONSHIP BETWEEN U.S. NASP AND GLOBAL AND REGIONAL AVIATION SAFETY PLANS

ICAO created the GASP to "...continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonized aviation safety strategy, regional aviation safety plans and national aviation safety plans."¹ The GASP provides a global framework for developing and implementing national aviation safety plans. The U.S. NASP supports the intent of this framework to the extent practicable for the United States and the achievement of corresponding goals and targets in the GASP.

The United States also participates in the development of regional aviation safety plans (RASP) through membership and/or accreditation to ICAO Regional Aviation Safety Groups (RASGs). U.S. civil aviation safety data and/or information may contribute to the following RASPs:

- ICAO North American, Central American and Caribbean (NACC) RASP (Accredited)
- ICAO Asia-Pacific RASP (Member)

Contributing to the ICAO NACC RASP

The ICAO NACC Regional Office monitors the implementation of the Safety Enhancement Initiatives listed in the NACC RASP and measures safety performance of the regional civil aviation system in cooperation with the RASG-Pan America (RASG-PA). The United States contributes to this monitoring through participation in the RASG-PA and its contributory bodies, including the provision and analysis of civil aviation safety data and reporting. The United States also reports information to the NACC Regional Office upon request. (see Figure 3)



Figure 3 describes the relationship among the U.S. NASP, the NACC RASP, and ICAO GASP

ADDITIONAL U.S. CIVIL AVIATION-RELATED PLANS

The following plans provide information about the infrastructure and human capital aspects of air transport at the national level and the strategic direction that contributes to the management of civil aviation safety in the United States:

Strategic plans

- Department of Transportation (DOT) Strategic Plan Establishes DOT's strategic goals and objectives.
- FAA Flight Plan 21 Strategic Plan

Establishes the FAA's strategic goals and objectives in alignment with the DOT Strategic Plan, and describes fouryear goals the agency will pursue and the yearly actions that will contribute to realizing these objectives.

 <u>National Transportation Safety Board (NTSB)</u> <u>Strategic Plan</u>

Establishes the NTSB's strategic priorities, goals, and objectives.

 National Aeronautics and Space Administration (NASA) <u>Aeronautics Research Mission Directorate Strategic Plan</u> Establishes strategic goals and objectives for aeronautics research performed under NASA's Aeronautics Research Mission Directorate. Research includes vehicle, airspace and safety-related capabilities for civil aviation.

¹ The Global Aviation Safety Plan (GASP) presents the strategy which supports the prioritization and continuous improvement of aviation safety. <u>https://www.icao.int/safety/GASP/Pages/default.aspx</u>



NASA Volume of Integrated Performance

Annual performance report that describes progress toward agency goals and objectives. Civil aviation-related items focus on research and development.

• FAA Aviation Safety Strategic Plan

Establishes FAA's Aviation Safety goals, objectives and activities to assist the Aviation Safety organization in achieving its mandate.

More information about the Strategic Plans listed above is provided in <u>A strategic approach to managing safety</u>.

Aviation infrastructure plans

- Federal Aviation Administration Capital Investment Plan Multi-year plan for the U.S. national infrastructure, airspace modernization programs and activities.
- <u>Airports Capital Improvement Plan</u>

Plan that identifies eligible, justified, and reasonable development, planning, equipment, or environmental projects for airports, which are in the National Plan of Integrated Airport Systems.

Human capital plans

FAA Aviation Safety Workforce Plan and FAA Air Traffic Controller Workforce Plan

Provide staffing estimates, forecasts, and ranges including actual on-board levels, for the FAA's Aviation Safety services and offices and air traffic control facilities.

• FAA Science, Technology, Engineering, and Math (STEM) Aviation & Space Education (AVSED) Program

Plans to promote the next generation of skilled aviation and aerospace professionals.

FAA Diversity, Equity, Inclusion, and Accessibility

For the first time, the DOT has centered Equity as a Departmentwide strategic goal via its <u>Strategic Plan</u>. The FAA recognizes that a diverse, equitable, inclusive, and accessible workplace is critical to recruiting and retaining a highly skilled and qualified aviation workforce. The FAA strives to educate about aviation and aerospace careers, and foster a positive working environment by valuing, using, and managing the differences that individuals bring to the workplace. Guided by the <u>Government-Wide Strategic Plan</u> to Advance Diversity, Equity, Inclusion and Accessibility in the Federal Workforce, the National Strategy on Gender Equity and Equality, the DOT Equity Action Plan and the forthcoming DOT strategic plan for gender justice, the FAA works through a variety of programs and initiatives, such as:

- FAA Diversity and Inclusion Strategic Plan, which establishes the FAA's Mission and Values in creating a diverse and inclusive work environment
 - Diversity and Inclusion
 - <u>Aviation Development Program</u>, which hires underrepresented individuals into mission-critical aviation occupations
- Equal Employment Opportunity Affirmative Programs
- Outreach
- <u>STEM AVSED Programs, Minority Scholarships, and Part-</u> nerships, including with minority-focused groups
- Women in Aviation Advisory Board, whose recent recommendations report will be taken up for further action by the agency
- Youth Access to American Jobs in Aviation Task Force
- 2021 Virtual Inclusive Language Summit

A STRATEGIC APPROACH TO Managing aviation Safety

The U.S. NASP centralizes access to resources that demonstrate how the United States manages civil aviation safety. The NASP promotes connectivity among U.S. civil aviation safety planning, programs, and initiatives but does not impose new requirements. Due to the size and complexity of the U.S. National Airspace System and the number and variety of government and private stakeholders, the U.S. NASP focuses on providing a comprehensive presentation of civil aviation safety management activities by U.S. Government agencies managing the National Airspace System.

The FAA's Aviation Safety organization leads the management of the U.S. NASP in collaboration with entities responsible for or participating in aviation safety management, and ensures endorsement of the plan by senior U.S. aviation leadership. The content in the U.S. NASP will be regularly reviewed and updated through a collaborative approach to ensure it reflects evolving information and practices. Many U.S. organizations play important roles in supporting the highest levels of safety, and participation by identified stakeholders is important to an accurate and informative U.S. NASP. Read <u>U.S. NASP development</u> for more details about contributors to the plan.

SAFETY GOALS AND TARGETS

As discussed in the <u>U.S. SSP</u> document, the U.S. civil aviation safety system encompasses a number of public and private stakeholders, including multiple U.S. Government departments and agencies with specific functions and responsibilities. The U.S. SSP document focuses on the FAA and NTSB because those two organizations fulfill the majority of SSP-related functions for the United States.¹ Each of these organizations establishes strategic plans that describe goals for a defined period, typically three to five fiscal years.²

DOT and FAA

The DOT and the supporting FAA Flight Plan 21 Strategic Plan and FAA Aviation Safety Strategic Plans each include safety as a dedicated strategic goal. The plans also describe the actions DOT and FAA will take to achieve the goals and objectives and drive the establishment of corresponding, incremental



² The U.S. Government fiscal year begins on October 1 and ends on September 30 of the following year.

annual priorities and targets. Metrics (e.g., performance or success indicators) are important components of the plans. The Strategic Plans also incorporate stakeholder input received during the development process, where appropriate. "Figure 4 shows how safety targets are established annually in alignment with the Strategic Plans.

The Monitoring and Implementation section in the DOT Strategic Plan, key activities and success indicators in the FAA Flight Plan 21 Strategic Plan, and the Measuring Progress section in the FAA Aviation Safety Strategic Plan describe their respective implementation. Additional information regarding implementation is presented in <u>Monitoring implementation</u>.

NTSB

The NTSB's Strategic Plan identifies goals for improving transportation safety, with a focus on enhancing the effectiveness and efficiency of its investigative products and processes.

Data collection and analysis are fundamental aspects of informing these efforts and continually improving the management and execution of agency objectives.



NTSB STRATEGIC MANAGEMENT PROCESS MAP FIVE-PHASE CYCLICAL PROCESS



Figure 5: NTSB Strategic Management Process Map

GASP 2020-2022 Goal	GASP Target	What We Are Doing
Achieve a continuous reduction of operational safety risks	Maintain a decreasing trend of global accident rate	DOT Strategic Plan and <u>FAA Flight Plan 21 Strategic Plan</u> address advancing a future without transportation-related serious injuries and fatalities. Key activities include safely integrating emerging entrants, leveraging predictive analytics and supporting technologies, enhancing safety data and information collection, processing, and exchange efforts, raising safety culture awareness, training, and more.
Increase collaboration at the regional level	By 2022, all States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective regional aviation safety group (RASGs)	 The FAA participates in the following ICAO RASGs and contributory bodies covering the Pan America (North America, Central America, Caribbean, and South America), Asia and Pacific, and North Atlantic regions: RASG-PA RASG-Asia and Pacific Regions North Atlantic Systems Planning Group and Safety Oversight Group

Global safety goals and targets

The ICAO GASP contains safety goals and targets for countries, regions, and industry. The United States continues to focus on reducing fatalities and serious injuries and contributing to ICAO RASGs as shown in Figure 6.

SAFETY MANAGEMENT SYSTEMS (SMS) IN THE FAA

The <u>U.S. SSP</u> document describes in detail how the FAA demonstrates commitment to safety management principles through internal SMS implementation and oversight as part of its responsibility to regulate and oversee all aspects of U.S. civil aviation safety. This strategic approach integrates the management of safety risk into business planning, operations, and decision-making. More information about SMS in the FAA:

- FAA Programs & Initiatives: SMS Provides information about SMS, Aviation Safety and the interface with FAA, including information about the FAA's SMS international collaboration efforts and information tailored to specific aviation sectors.
- FAA Order 8000.369 Safety Management System Establishes the SMS policy and requirements for the FAA.

EMERGING ISSUES

Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. It is important to remain vigilant with respect to emerging issues to identify any potential safety risks, collect relevant data, and proactively develop mitigations to appropriately address risks.

In addition to the safety-related goals, objectives, initiatives, and FAA key activities identified in the DOT and FAA Strategic Plans, the following programs and initiatives further support a risk-based approach to the identification of emerging issues:

Figure 6: DOT, FAA Strategic Plans compared to global safety goals and targets

- FAA Integrated Oversight Philosophy Identifies principles for evolving safety oversight systems, to better position the FAA to meet the challenges of a rapidly evolving U.S. aerospace system.
- FAA Compliance Program

The FAA's approach to compliance and the advanced integration of these concepts into the fabric of the agency's mission.

FAA Flight Standards Service System Approach for Safety
 Oversight Program

Established to develop and implement a comprehensive system safety approach to the oversight of aviation entities, with the goal to improve safety beyond current levels by enhancing Risk-Based Decision-Making practices and initiatives.

Aviation Voluntary Reporting Programs

Proactive public-private partnership programs enabling aviation employees to voluntarily and confidentially report operational experiences and safety concerns for non-punitive review and analysis. These programs support identifying and resolving latent emerging issues. Voluntary reporting programs are also important operational safety priorities.



Aviation Safety Information Analysis and Sharing Program

Connects a wide variety of safety data and information sources across government and industry.

NTSB Most Wanted List of Transportation Safety Improvements

Safety advocacy tool that identifies the top safety improvements that can be made across all modes of transportation to prevent accidents, minimize injuries, and save lives in the future.

National Aviation Research Plan

The National Aviation Research Plan, or NARP, provides an overview of the FAA's research and development (R&D) plans over the next five years, highlighting near-, mid- and far-term research.

Research and development

Rapid innovation in aerospace is fundamentally transforming aviation. More than ever, we need our researchers to continue finding creative solutions to complex aviation problems. To succeed, we must balance bold new ideas with tried and true safety considerations.

FAA

The FAA's R&D is primarily applied research designed to help the FAA develop policies, regulations, certifications, guidance,

The FAA's R&D portfolio is guided by national goals, research priorities, and strategic plans that inform the 2020 NARP. Focus areas include new entrants such as drones, and supersonic flight; cybersecurity; resiliency, and more.

and standards that increase safety and modernize the National Airspace System.

The annual NARP presents the FAA's R&D goals, highlights planned research, and identifies partnerships with other agencies, academia, and industry. The FAA utilizes industry/ academia partnerships and their state-of-the-art research laboratories to conduct leading-edge research to meet mission-critical program objectives. Both the <u>William</u> J. Hughes Technical Center in Atlantic City, NJ and the <u>Civil Aerospace Medical Institute</u> at the Mike Monroney Aeronautical Center in Oklahoma City, OK are home to world-renowned scientists and host the largest percentage of FAA's STEM workforce.

William J. Hughes Technical Center (WJHTC)

The WJHTC serves as the FAA's laboratory and scientific test base for research, development, test and evaluation. It develops, manages and operates over 500,000 square feet of aviation laboratories. This national asset underpins all air traffic control system modernization programs and serves as the proving ground for new aviation safety programs and capabilities. The WJHTC's research, engineering, development, test, and evaluation capabilities remain essential to the continued advancement of technologies that improve aviation safety and mitigate impacts on the environment.



Civil Aerospace Medical Institute (CAMI)

CAMI is the medical certification, research, education, and occupational health wing of the FAA's Office of Aerospace Medicine. It focuses on the human element in flight – i.e., pilots, flight attendants, passengers, air traffic controllers, and the entire human support system that embraces civil aviation. CAMI has more than a dozen complex labs and large-scale, computerized health system and performance databases. CAMI researchers study the factors influencing human performance in the aerospace environment, find ways to understand them, and communicate that understanding to the aerospace community.

The FAA also collaborates with other U.S. Government agencies leading aerospace R&D programs to leverage resources and expertise in advancing aviation safety.

NASA

NASA Aeronautics Research Mission Directorate

Aviation safety research is conducted at NASA within the

Airspace Operations and Safety Program. NASA acts as an independent research institution and coordinates with the FAA and other government and industry stakeholders to provide evidence and recommendations for safety policy and safety promotion. NASA's subject matter expertise includes risk analysis, computational modeling, flight testing, and human-machine interaction. NASA is also home to the <u>Aviation Safety Reporting System</u> (ASRS), which is administered through an agreement with the FAA and as part of FAA's Aviation Safety Reporting Program. ASRS is used as both a vital source of data about current and trending aviation safety and as a repository for aviation safety research.

The programs and initiatives described here, along with others included in the <u>U.S. SSP</u> document, also contribute to civil aviation <u>operational safety priorities</u> in the U.S. National Airspace System.

OPERATIONAL SAFETY PRIORITIES

The U.S. SSP document describes how the United States collects aviation safety data from numerous sources and develops and processes information from aggregated data sources and highlights examples of U.S. risk-based oversight systems for targeting areas of greater concern or need.³ Aviation voluntary reporting programs and public-private partnerships contribute significantly to civil aviation operational safety in the U.S. National Airspace System by supporting the datadriven identification of safety risks and corresponding safety enhancements. The work done through these partnerships, which are committed to enhancing safety and reducing fatality risk in various aviation sectors, drives safety improvements including, but not limited to, actions such as: rulemaking; policy development; targeted safety oversight activities; safety data analysis; and safety promotion.

The collaboration between government and industry, at all levels, has been instrumental in the success the United States has achieved in the improvement of aviation safety. Continued success in advancing aviation safety depends on these strong safety partnerships built on trust and the ability to share and protect voluntarily provided safety information. The FAA continues to work with private and public stakeholders to establish and implement safety management systems to address and reduce risk within their operations and the National Airspace System, and to encourage voluntary investments in safety enhancements that reduce the fatality risk.

FAA OPERATIONAL SAFETY INITIATIVES

The FAA continually monitors the U.S. National Airspace System through surveillance, inspection, review, investigation, and analysis to look for conditions that affect the safety of operations, equipment/

The U.S. SSP document describes how the United States collects aviation safety data and develops and processes information for targeting aviation safety areas of greater concern or need. systems, airplanes, and people. The following operational safety initiatives contribute to improving or maintaining current safety levels by providing information, guidance, and resources to aviation personnel and the traveling public:

<u>Aviation Voluntary Reporting Programs</u>

Airports Voluntary Reporting System (AVRS) AVRS enables FAA employees in the Office of Airports to report hazards, safety-related issues, concerns, and incidents through a process in which they can provide recommended solutions and ideas for mitigation or improvement.

- Air Traffic Safety Action Program (ATSAP). ATSAP-X. SAFER – Federal Contract Towers (FCT). and Technical Operations Safety Action Program (T-SAP)
 These programs foster a voluntary, cooperative, nonpunitive environment for FAA air traffic employees (ATSAP), FAA engineers, architects, flight procedures team, and others (ATSAP-X), FAA Contract Air Traffic Controllers (SAFER-FCT), and FAA technicians (T-SAP) to openly report safety concerns.
- <u>Aviation Safety Action Program (ASAP)</u>

The ASAP encourages air carrier and repair station employees to voluntarily report safety information that may be critical to identifying potential precursors to accidents.

• Aviation Safety Reporting System (ASRS)

NASA manages and maintains the ASRS under an agreement with FAA's Aviation Safety Reporting Program. ASRS is an important facet of the continuing effort by government, industry, and individuals to maintain and improve aviation safety. The ASRS collects voluntarily submitted aviation safety incident/situation reports from pilots, controllers, and others. ASRS uses the information it receives to promote aviation safety through research, reporting and alerting.

• FAA Aviation Safety organization Voluntary Safety Reporting Program (VSRP)

The VSRP provides those who work in the FAA's Aviation Safety organization the ability to report confidentially any safety concerns without fear of punitive action. The FAA's Aviation Safety workforce is composed of about 7,400 professionals who provide oversight of airlines, manufacturers, maintenance providers, aviation medical practitioners and flight crews.

³ The United States has established procedures to develop and process information from aggregated data sources, which are used within the U.S. safety system to monitor trends in aviation safety and identify any safety issues and address them in the most appropriate ways. <u>https://www.faa.gov/sites/faa.gov/files/about/initiatives/sms/reference_library/AVS-210503-001-Supporting-US_State_Safety_Program.pdf</u>



FAA operational safety initiatives contribute to improving or maintaining current safety levels by providing information, guidance, and resources to aviation personnel and the traveling public (continued from pg. 12):

- Runway Safety / Surface Safety
 - <u>National Runway Safety Plan</u>
 - FAA Runway Incursion Mitigation Program and Runway Safety Statistics
 - <u>Runway Excursions</u>
 - FAA Runway Excursions Support Tool
 - FAA Takeoff and Landing Performance Assessment
- Safe Air Charter Operations
- Cabin Safety
- Aircraft Cargo Safety and Air Carrier Cargo Safety
- UAS Data Exchange (LAANC) and B4UFLY App
- Notices to Air Missions Modernization
- <u>Coronavirus (COVID-19) Information from the FAA</u>
- Boeing 737 MAX Reading Room

Operational safety initiatives are continually evolving in response to safety needs, priorities, and opportunities, and the FAA regularly releases new information and resources.

ADDITIONAL U.S. GOVERNMENT OPERATIONAL SAFETY INITIATIVES

- <u>Safety recommendations</u> are one of the most important products from NTSB investigations and are addressed to the organization best able to address the safety issue(s). Broader safety issues are frequently examined through initiatives such as NTSB special investigations and special studies, both of which typically also result in the issuance of safety recommendations. NTSB also generates <u>safety alerts</u> to bring attention to specific issues and provide practical suggestions as necessary.
- <u>NTSB Most Wanted List of Transportation</u> <u>Safety Improvements</u>
- NASA leads an effort to evolve SMS for increasingly autonomous aviation operations. This new concept is called an <u>In-Time Aviation Safety Management System</u> (IASMS). This IASMS development is coordinated within NASA's <u>System-Wide Safety</u> project.
- The National Oceanic and Atmospheric Administration National Weather Service (NWS) is transforming its operations to help America respond to impactful and extreme water, weather, and climate events by becoming a <u>Weather-Ready Nation</u>. Offices provide forecast information in a way that better supports emergency managers, first responders, government officials, businesses and the public – including aviation stakeholders – to make fast, smart decisions to save lives and property and enhance livelihoods. NWS supports the FAA on-site, providing up-to-date weather forecasts and impact-based decision support services to support our aviation industry.

DATA, STATISTICS, AND REPORTS

Regularly updated information about aviation accidents and incidents and other reported events that occurred in the United States and that involved aircraft registered in the United States engaged in commercial air transport and aircraft involved in general aviation, is available from the following resources:

- FAA Accident & Incident Data
- Aviation Safety Information Analysis and Sharing (ASIAS) System Preliminary Accident and Incident Reports

The FAA also reports this information annually against established performance targets, as described in <u>Monitoring</u>. <u>implementation</u>.

NTSB Data & Stats

- <u>Aviation Accidents</u>
- <u>Annual Review of Aircraft Accident Data</u>
- <u>Accident Docket Search</u>
- <u>Aviation Accident Reports</u>
- <u>Safety Research Reports</u>

OTHER SAFETY Priorities

In addition to focusing on continually reducing the fatality risk, the United States identifies and pursues other safety priorities important to providing the safest and most efficient aerospace system in the world now and in the future. These are given priority in the NASP since they are aimed at enhancing and strengthening U.S. safety oversight capabilities and the management of aviation safety in the U.S. National Airspace System and may encompass organizational improvements, emerging issues, and other areas of interest. The following resources provide information about additional U.S. aviation safety priorities:

DOT AND FAA PRIORITIES

The Strategic Plans described in <u>A strategic approach to</u> <u>managing aviation safety</u> outline strategic safety priorities and key activities for the DOT and FAA. Additional resources include:

- DOT Safety Programs and Projects
 - <u>Safety Data Initiative</u>
- FAA Advisory and Rulemaking Committees and Topics
 NARP

The NARP provides an overview of the FAA's research and development plans over the next five years, highlighting near-, mid- and far-term research.

FAA Air Transportation Centers of Excellence

Safety promotion

Safety promotion programs such as the following are important mechanisms to actively communicate safety information:

- FAA Safety Team
 - DronePro Program
- FAA Safety Briefing
- Hazardous Materials Safety
- Laser Safety

Integration

The FAA works to enable the safe integration of airspace users into the U.S. National Airspace System through activities and capabilities such as:

- FAA UAS Programs, Partnerships, and Opportunities
- FAA Commercial Space Transportation Space
 Data Integrator

The United States identifies and pursues other safety priorities important to providing the safest and most efficient aerospace system in the world now and in the future.



MONITORING Implementation

A fundamental element of any system that seeks continuous improvement is monitoring the implemented steps that produce the intended results: safety, quality, efficiency, etc. Monitoring implementation creates a feedback loop through which concerns or deficiencies are identified via the collection of objective evidence, then assessed for their potential impact on system function, and mitigated through corrective actions.⁴ This highlevel concept is clarified within national laws, ICAO activities, and ICAO programs.

The United States continuously monitors the performance of the U.S. National Airspace System. Annual performance planning and reporting ensures monitoring and accountability against established metrics and targets. U.S. Government departments and agencies document their annual planning, monitoring, and reporting in publicly available business plans, and performance and achievement reports. Figure 7 presents a typical annual planning, monitoring, and reporting cycle.

Annual plans and reports encompass a variety of aviation safety goals, priorities, enhancements, and initiatives and provide relevant up-to-date information on progress made. Progress toward meeting annual goals and targets is also documented.

DOT AND FAA

- DOT Budget and Performance Documents
- FAA Agency Performance Report

• FAA Plans and Reports

Portfolio of Goals, FAA Business Plans, FAA
 Performance and Accountability Reports, and UAS
 Accomplishment Reports

These annual plans and reports, which are updated regularly, include the work planned and accomplished toward the implementation of the DOT and FAA Flight Plan 21 Strategic Plans discussed in <u>A strategic approach to managing</u> <u>safety</u>. The Monitoring and Implementation section in the DOT Strategic Plan and the Measuring Progress section in the FAA Aviation Safety Strategic Plan further describe their implementation.

The United States continuously monitors the performance of the U.S. National Airspace System.

NTSB

NTSB Strategic Plans and Reports

The NTSB's annual strategic performance plan outlines its strategies to achieve agency priorities, promote organizational change, and improve agency performance. It outlines and links to goals and objectives for the fiscal year through the use of performance metrics and targets. The strategic performance report provides a summary of progress and accomplishments toward meeting annual goals and objectives. It relies on routine collection and analysis of performance metric data to ensure performance outcomes and decisions are actively managed.



⁴ U.S. Government agencies are also subject to independent audits and investigations by other U.S. Government organizations, such as the Government Accountability Office.

CONTACTS

Stay connected by engaging with the FAA on social media platforms and browsing the agency <u>Newsroom</u>

Any questions regarding the U.S. NASP and its content may be addressed to the following:

Aviation Safety International Division <u>9-AVS-INTL@faa.gov</u>

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