U.S. DEPARTMENT OF TRANSPORTATION

OFFICE OF INSPECTOR GENERAL

Quality Control Review of the Independent Auditor's Report on the Federal Aviation Administration's Audited Consolidated Financial Statements for Fiscal Years 2018 and 2017

FAA

Report No. QC2019009

November 14, 2018

U.S. DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

Highlights

Quality Control Review of the Independent Auditor's Report on the Federal Aviation Administration's Audited Consolidated Financial Statements for Fiscal Years 2018 and 2017

Required by the Chief Financial Officers Act of 1990

QC2019009 | November 14, 2018

What We Looked At

We contracted with the independent public accounting firm KPMG LLP to audit the Federal Aviation Administration's (FAA) financial statements as of and for the fiscal years ended September 30, 2018, and September 30, 2017, and to provide a report on internal control over financial reporting and compliance with laws and other matters. The contract required that the audit be performed in accordance with U.S. generally accepted Government auditing standards, Office of Management and Budget audit guidance, and the Governmental Accountability Office's and Council of the Inspectors General on Integrity and Efficiency's *Financial Audit Manual*. In connection with the contract, we performed a quality control review of KPMG's report dated November 9, 2018, related documentation, and inquired of its representatives.

What We Found

Our quality control review disclosed no instances in which KPMG did not comply, in all material respects, with U.S. generally accepted Government auditing standards.

Recommendations

FAA concurs with KPMG's five recommendations.

Contents

U.S. DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

Memorandum

Date: November 14, 2018

Subject: ACTION: Quality Control Review of the Independent Auditor's Report on the Federal Aviation Administration's Audited Consolidated Financial Statements for Fiscal Years 2018 and 2017 | Report No. QC2019009

From: Calvin L. Scovel III
Inspector General

To: Federal Aviation Administrator

I respectfully submit our report on our quality control review (QCR) of the independent auditor's report on the Federal Aviation Administration's (FAA) audited consolidated financial statements for fiscal years 2018 and 2017.

We contracted with the independent public accounting firm KPMG LLP to audit FAA's financial statements as of and for the fiscal years ended September 30, 2018, and September 30, 2017, and to provide a report on internal control over financial reporting and compliance with laws and other matters. The contract required that the audit be performed in accordance with U.S. generally accepted Government auditing standards, Office of Management and Budget audit guidance, and the Governmental Accountability Office's and Council of the Inspectors General on Integrity and Efficiency's *Financial Audit Manual*.[1]

We appreciate the cooperation and assistance of FAA's representatives and KPMG. If you have any questions about this report, please call me at (202) 366-1959, or Louis C. King, Assistant Inspector General for Financial and Information Technology Audits, at (202) 366-1407.

cc: The Secretary
DOT Audit Liaison, M-1
FAA Audit Liaison, AAE-001

[1] *Financial Audit Manual*, volumes 1, 2, and 3, GAO-18-601G, GAO-18-625G, and GAO-18-626G, June 2018.

KPMG's Report

In its audit of FAA, KPMG reported

- that the financial statements[2] were fairly presented, in all material respects, in accordance with U.S. generally accepted accounting principles,
- that FAA had three significant deficiencies[3] that KPMG did not consider a material weakness[4] in internal control over financial reporting, and
- no instances of reportable noncompliance with provisions of laws tested or other matters.

KPMG made five recommendations to address the significant deficiencies in internal controls over financial reporting (see attachment 1).

Significant Deficiencies

Weaknesses in general information technology controls. KPMG identified the following general information technology control (GITC) deficiencies related to access controls and segregation of duties:

- Monitoring controls were not operating effectively over the periodic review of access, including privileged access granted to users;
- Proper segregation of duties was not in place over users' access rights;
- Policies related to the review of audit logs were not documented; and
- Logical access configurations were not properly designed or configured.

Weaknesses in the design and implementation of controls related to inventory shop order review. Controls were not properly designed and implemented to ensure the accuracy of inventory shop order data, including labor hours charged, routing codes, and final condition codes. Unit cost testwork

[2] The financial statements are included in the Agency's Performance and Accountability Report (see attachment 3).
[3] A significant deficiency is a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.
[4] A material weakness is a deficiency, or a combination of deficiencies, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis.

on six repairable items identified these exceptions: (1) unit cost incorrectly included indirect shop orders; (2) unit cost was outdated due to system limitations; and (3) unit cost utilized the standard cost rate rather than utilizing the cost of the actual shop orders.

Weaknesses in the capitalization of software development costs. Controls were not properly designed and implemented to ensure that research, engineering, and development (RE&D) funded costs were accurate, valid, and properly recorded to the correct general ledger accounts. One of four sample items tested—related to RE&D-funded internal use software—was improperly expensed because these costs occurred after the preliminary design phase and should have been capitalized.

Recommendations

KPMG made five recommendations to strengthen FAA's general information technology controls, inventory shop order review controls, and RE&D capitalization controls. KPMG recommended that FAA management

1. Develop sufficient procedures and controls to address the identified GITC control deficiencies.

2. Monitor progress to ensure that the GITC procedures and controls are implemented and operating effectively.

3. Design and document policies, procedures, and controls related to the review of inventory shop orders that include standardized reports, an appropriate precision threshold for required analysis or follow-up, and evidence of review.

4. Design and implement policies and procedures to conduct a held for repair unit cost calculation review, including approvals of adjustments due to unique circumstances.

5. Revise its existing policy of expensing all projects initiated via RE&D funding, to include projects that have progressed beyond the preliminary design stage, and design and implement controls at the appropriate level of precision to determine whether projects should be expensed or capitalized, in accordance with the applicable accounting standards.

Quality Control Review

In connection with the contract, we performed a review of KPMG's report dated November 9, 2018, related documentation, and inquired of its representatives. Our review, as differentiated from an audit of the financial statements in accordance with U.S. generally accepted Government auditing standards, was not intended to enable us to express, and we do not express, an opinion on FAA's financial statements or conclusions about the effectiveness of internal control over financial reporting or compliance with laws and other matters. KPMG is responsible for its report and the conclusions expressed therein. However, our review disclosed no instances in which KPMG did not comply, in all material respects, with U.S. generally accepted Government auditing standards.

Agency Comments and OIG Response

On November 5, 2018, KPMG provided FAA with its draft report and received FAA's response on November 9, 2018 (see attachment 2). FAA agreed with the deficiencies KPMG found.

FAA concurred with KPMG's five recommendations and committed to developing corrective action plans to address the deficiencies by December 31, 2018. We agree with KPMG's recommendations and are not making any additional recommendations.

Actions Required

We consider all five of KPMG's recommendations open and unresolved pending receipt of the corrective action plans.

Exhibit. List of Acronyms

FAA	Federal Aviation Administration
GITC	general information technology control
OIG	Office of Inspector General
QCR	quality control review
RE&D	research engineering and development

Attachment 1. Independent Auditor's Report

KPMG LLP
Suite 12000
1801 K Street, NW
Washington, DC 20006

Independent Auditors' Report

Acting Administrator, Federal Aviation Administration and Inspector General
U.S. Department of Transportation Federal Aviation Administration:

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of the U.S. Department of Transportation (DOT), Federal Aviation Administration (FAA), which comprise the consolidated balance sheets as of September 30, 2018 and 2017, and the related consolidated statements of net cost, and changes in net position, and combined statements of budgetary resources for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America, in accordance with the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, and in accordance with Office of Management and Budget (OMB) Bulletin No. 19-01, *Audit Requirements for Federal Financial Statements*. Those standards and OMB Bulletin No. 19-01 require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the U.S. Department of Transportation, Federal Aviation Administration as of September 30, 2018 and 2017, and its net costs, changes in net position, and budgetary resources for the years then ended in accordance with U.S. generally accepted accounting principles.

Other Matters

Interactive Data

Management has elected to reference to information on websites or other forms of interactive data outside the Performance and Accountability Report to provide additional information for the users of its financial statements. Such information is not a required part of the basic consolidated financial statements or supplementary information required by the Federal Accounting Standards Advisory Board. The information on these websites or the other interactive data has not been subjected to any of our auditing procedures, and accordingly we do not express an opinion or provide any assurance on it.

Required Supplementary Information

U.S. generally accepted accounting principles require that the information in the Management's Discussion and Analysis, Required Supplementary Information, and Required Supplementary Stewardship Information sections be presented to supplement the basic consolidated financial statements. Such information, although not a part of the basic consolidated financial statements, is required by the Federal Accounting Standards Advisory Board who considers it to be an essential part of financial reporting for placing the basic consolidated financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic consolidated financial statements, and other knowledge we obtained during our audits of the basic consolidated financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the basic consolidated financial statements as a whole. The In a Day's Work, Foreword, Messages from the Administrator and the Chief Financial Officer, Performance Results and Other Information sections, as listed in the Table of Contents of the Performance and Accountability Report, is presented for purposes of additional analysis and is not a required part of the basic consolidated financial statements. Such information has not been subjected to the auditing procedures applied in the audits of the basic consolidated financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by *Government Auditing Standards*

Internal Control over Financial Reporting

In planning and performing our audit of the consolidated financial statements as of and for the year ended September 30, 2018, we considered the FAA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the consolidated financial statements, but not for the purpose of expressing an opinion on the effectiveness of the FAA's internal control. Accordingly, we do not express an opinion on the effectiveness of the FAA's internal control. We did not test all internal controls relevant to operating objectives as broadly defined by the *Federal Managers' Financial Integrity Act of 1982*.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify certain deficiencies in internal control, described in the accompanying Exhibit I as items 2018-01, 2018-02, and 2018-03 that we consider to be significant deficiencies.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the FAA's consolidated financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* or OMB Bulletin No. 19-01.

FAA's Responses to Findings

The FAA's responses to the findings identified in our audit are described and presented on page 81. The FAA's responses were not subjected to the auditing procedures applied in the audit of the consolidated financial statements and, accordingly, we express no opinion on the responses.

Purpose of the Other Reporting Required by Government Auditing Standards

The purpose of the communication described in the Other Reporting Required by *Government Auditing Standards* section is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the FAA's internal control or compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

Washington, DC
November 9, 2018

2018 – 01: Weaknesses in General Information Technology Controls

Background

The Department's operations rely on a series of interconnected networks and information technology (IT) systems to provide support for the operations of the Department in fulfilling its mission. The core accounting system, Delphi, is hosted, operated, and maintained by the Federal Aviation Administration at the Mike Monroney Aeronautical Center in Oklahoma City, OK, under the overall direction of the Department's Chief Financial Officer.

Criteria

The U.S. General Accountability Office (GAO)'s Standards for Internal Control in the Federal Government, sets the standards for an effective internal control system and provides an overall framework for designing, implementing, and operating an effective internal control system. The standards require entities to design appropriate types of control activities to include limiting access to resources and records to authorized individuals, and to periodically compare resources with the recorded accountability to help reduce the risk of errors, fraud, misuse, or unauthorized alteration. In addition, the DOT Cyber Security Compendium, version 4.2, dated March 2018, provides DOT's policies, procedures, and controls related to the security of DOT information systems that support DOT's mission, operations, and assets, including those provided or managed by another Federal agency, contractor, grantee, or other source.

Condition

During our review of general information technology controls, we identified certain control deficiencies related to access controls and segregation of duties as listed below:

- Monitoring controls were not operating effectively over the periodic review of access, including privileged access, granted to users;
- Proper segregation of duties were not in place over users' access rights;
- Policies related to the review of audit logs were not documented; and,
- Logical access configurations are not properly designed or configured.

Cause

Management does not have sufficient procedures and controls in place to ensure compliance with the DOT Cyber Security Compendium, version 4.2 dated March 2018.

Effect

The aforementioned IT control deficiencies pose a risk to the completeness, accuracy, and integrity of DOT's financial data which could affect DOT's ability to produce accurate and complete financial statements.

Recommendations

We recommend that management:

1. Develop sufficient procedures and controls to address the identified control deficiencies.
2. Monitor progress to ensure that the procedures and controls are implemented and operating effectively.

2018 – 02: Weaknesses in The Design and Implementation of Controls Related to Inventory Shop Order Review

Background

FAA uses inventory shop order data input by technicians into Logistical Center Support System (LCSS) to calculate the held for repair (HFR) unit cost on a monthly basis. Management relies on the accuracy of the inventory shop order data, such as routing code, final condition code, and labor hours, in order to complete the estimated repair cost calculation. Many of these data elements dictate whether a shop order is considered direct and utilizes the labor hours to apply true repair costs to it or if the shop order is considered indirect and only reflects the core cost (i.e., HFR unit cost). The indirect shop orders are not utilized in the estimated repair cost calculation.

Additionally, FAA calculates the estimated repair costs associated with HFR inventory based on historical direct shop orders for the related inventory part numbers. When FAA has no historical shop orders for a particular inventory part, they utilize a standard cost rate of 17% for in-house repairs and 35% for commercial repairs.

Criteria

United States Government Accountability Office (GAO) *Standards for Internal Control in the Federal Government* states:

> "10.02 Management designs control activities in response to the entity's objectives and risks to achieve an effective internal control system. Control activities are the policies, procedures, techniques, and mechanisms that enforce management's directives to achieve the entity's objectives and address related risks. As part of the control environment component, management defines responsibilities, assigns them to key roles, and delegates authority to achieve the entity's objectives. As part of the risk assessment component, management identifies the risks related to the entity and its objectives, including its service organizations; the entity's risk tolerance; and risk responses. Management designs control activities to fulfill defined responsibilities and address identified risk responses.
>
> 12.02 Management documents in policies the internal control responsibilities of the organization."

Federal Accounting Standards Advisory Board (FASAB) *Statement of Federal Financial Accounting Standards (SFFAS) 3 Accounting for Inventory and Related Property* states:

> "33. (2) Under the direct method, inventory held for repair shall be valued at the same value as a serviceable item less the estimated repair costs. When the repair is actually made, the cost of the repair shall be capitalized in the inventory account up to the value of a serviceable item. Any difference between the initial estimated repair cost and the actual repair cost shall be either debited or credited to the repair expense account."

Condition

During our walkthrough of the inventory process and HFR unit cost substantive testwork, we noted controls are not properly designed and implemented to ensure the accuracy of the inventory shop order data, including labor hours charged, routing codes, and final condition codes. Additionally, during our substantive testwork we selected a sample of 6 items and noted the following:

- One HFR unit cost sample tested incorrectly included indirect shop orders;

- One HFR unit cost sample tested was frozen at the unit cost as of March 25, 2016, the date of LCSS implementation, due to a system limitation within LCSS. Therefore, the estimated repair calculation did not include completed shop orders that occurred subsequent to that date; and,

- One HFR unit cost sample tested inappropriately utilized the standard cost rate of 17% rather than utilizing the actual shop orders to calculate the actual costs incurred.

Cause

Management does not have centralized policies or procedures designed and implemented effectively to conduct a HFR unit cost calculation review and a consistent review of shop orders, including labor hours, routing codes, and final condition codes recorded for each shop order.

Effect

HFR inventory and expenses may be inaccurate, increasing the risk of misstatements being recorded in the general ledger.

Recommendations

We recommend that management:

1. Design and document policies, procedures, and controls related to the review of inventory shop orders that include standardized reports, an appropriate precision threshold for required analysis or follow-up, and evidence of review.

2. Design and implement policies and procedures to conduct a HFR unit cost calculation review, including approvals of adjustments due to unique circumstances.

2018 – 03: Weaknesses in The Capitalization of Software Development Costs

Background:

Research, Engineering and Development (RE&D) funding is enacted through the Federal budget and is funded by the Airport and Airway Trust Fund. The purpose of the funding is to fund programs to plan, conduct and integrate domestic and international research efforts, and develop products and services that will ensure a safe, efficient, and environmentally compatible global air transportation system. In accordance with internal policies, costs incurred using RE&D funding are expensed.

Criteria

United States Government Accountability Office (GAO), Standards for Internal Control in the Federal Government states:

> "10.02 Management designs control activities in response to the entity's objectives and risks to achieve an effective internal control system. Control activities are the policies, procedures, techniques, and mechanisms that enforce management's directives to achieve the entity's objectives and address related risks. As part of the control environment component, management defines responsibilities, assigns them to key roles, and delegates authority to achieve the entity's objectives. As part of the risk assessment component, management identifies the risks related to the entity and its objectives, including its service organizations; the entity's risk tolerance; and risk responses. Management designs control activities to fulfill defined responsibilities and address identified risk responses.
>
> 12.02 Management documents in policies the internal control responsibilities of the organization."

Federal Accounting Standards Advisory Board (FASAB) Statement of Federal Financial Accounting Standards 10: Accounting for Internal Use Software states:

> "16. Although the measurement basis remains historical cost, reasonable estimates may be used to establish the capitalized cost of internally developed software, in accordance with the asset recognition and measurement provisions herein. For internally developed software, capitalized cost should include the full cost (direct and indirect cost) incurred during the software development stage. Such cost should be limited to cost incurred after
>
> a. management authorizes and commits to a computer software project and believes that it is more likely than not that the project will be completed and the software will be used to perform the intended function with an estimated service life of 2 years or more and
> b. the completion of conceptual formulation, design, and testing of possible software project alternatives (the preliminary design stage)."

Condition

Controls were not properly designed and implemented to ensure that RE&D costs are accurate, valid, and properly recorded in the general ledger. Specifically, of the four items selected, we identified one transaction that related to RE&D-funded internal use software that was improperly expensed as such costs were incurred after the preliminary design phase and should have been capitalized.

Cause

For RE&D funded projects, FAA does not require a continuous assessment of whether project costs should be capitalized or expensed beyond the initial determination to use RE&D funding.

Effect

Management may not identify RE&D costs associated with projects that have moved beyond the preliminary design phase, or have reached other capitalization threshold criterion, resulting in an overstatement of expenses and an understatement of assets.

Recommendation

We recommend that management revise its existing policy of expensing all projects initiated via RE&D funding to include projects that have progressed beyond the preliminary design stage, and design and implement controls at the appropriate level of precision to determine whether projects should be expensed or capitalized, in accordance with the applicable accounting standards.

Attachment 2. Agency Response

U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of Financial Services

800 Independence Ave. S.W.
Washington, DC 20591

November 9, 2018

Ms. Hannah Padilla
KPMG LLP
1801 K Street, NW, Suite 1200
Washington, DC 20006

Dear Ms. Padilla,

We have received your Independent Auditors' Report related to the Federal Aviation Administration's fiscal year 2018 consolidated financial statements and offer the following response.

We appreciate working with you in support of an efficient and effective audit. The audit is an essential part of our fiscal responsibility to our citizens, which we take very seriously.

We concur with the three findings in your report identifying improvements needed in the areas of (1) general information technology controls pertaining to the core accounting system, Delphi; (2) inventory shop order and held for repair unit cost calculation reviews; and, (3) capitalizing Research, Engineering and Development (RE&D) costs when projects progress beyond the preliminary design stage.

To address these weaknesses, we will (1) work with our shared services provider, the Enterprise Services Center, to ensure that general information technology controls pertaining to the core accounting system, Delphi, are appropriately strengthened; (2) improve procedures and controls surrounding inventory shop order and held for repair unit cost calculation reviews; and, (3) improve controls to ensure that RE&D costs are properly capitalized.

I will request that the Enterprise Services Center prepare a corrective action plan to address the first weakness. The Office of Financial Services will develop a corrective action plan to address the other two weaknesses. We will provide those plans to you by December 31, 2018, and I will monitor implementation of the plans throughout the corrective action process.

Thank you for your candor and the professional manner in which you and your team conducted your audit.

Sincerely,

Allison W. Ritman
Acting Chief Financial Officer

Attachment 3. Agency Performance and Accountability Report


U.S. Department
of Transportation
Federal Aviation
Administration
FAA
THE FAA. ADVANCING AVIATION.
Fiscal Year 2018
PAR
Performance and
Accountability Report
Supporting Aviation into the Future

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FAA 2018 PERFORMANCE AND ACCOUNTABILITY REPORT

THIS REPORT
AND REPORTS FROM PRIOR YEARS ARE AVAILABLE ON THE FAA WEBSITE AT

www.faa.gov/about/plans_reports/#performance

EVERY
MINUTE/HOUR/DAY,
THERE ARE MEN AND WOMEN
AT WORK TO
ENSURE THE SAFETY OF
OUR **NATIONAL AIRSPACE**.

SIDEBARS

ON THE RADAR

Cover image: Vertical landing of the Falcon 9's reusable first stage on March 30, 2017, after placing a commercial satellite named SES-10 into orbit. Photo: SpaceX

OUR MISSION

To provide the safest, most efficient aerospace system in the world.

OUR VISION

To transform the aviation system to reflect the highest standards of safety and efficiency and be a model for the world. The FAA will bring about this transformation by fostering innovation in our workforce and in how we serve our stakeholders and the American people.

OUR VALUES

SAFETY IS OUR PASSION

We work so that all air and space travelers arrive safely at their destinations.

EXCELLENCE IS OUR PROMISE

We seek results that embody professionalism, transparency, and accountability.

INTEGRITY IS OUR TOUCHSTONE

We perform our duties honestly, with moral soundness, and with the highest level of ethics.

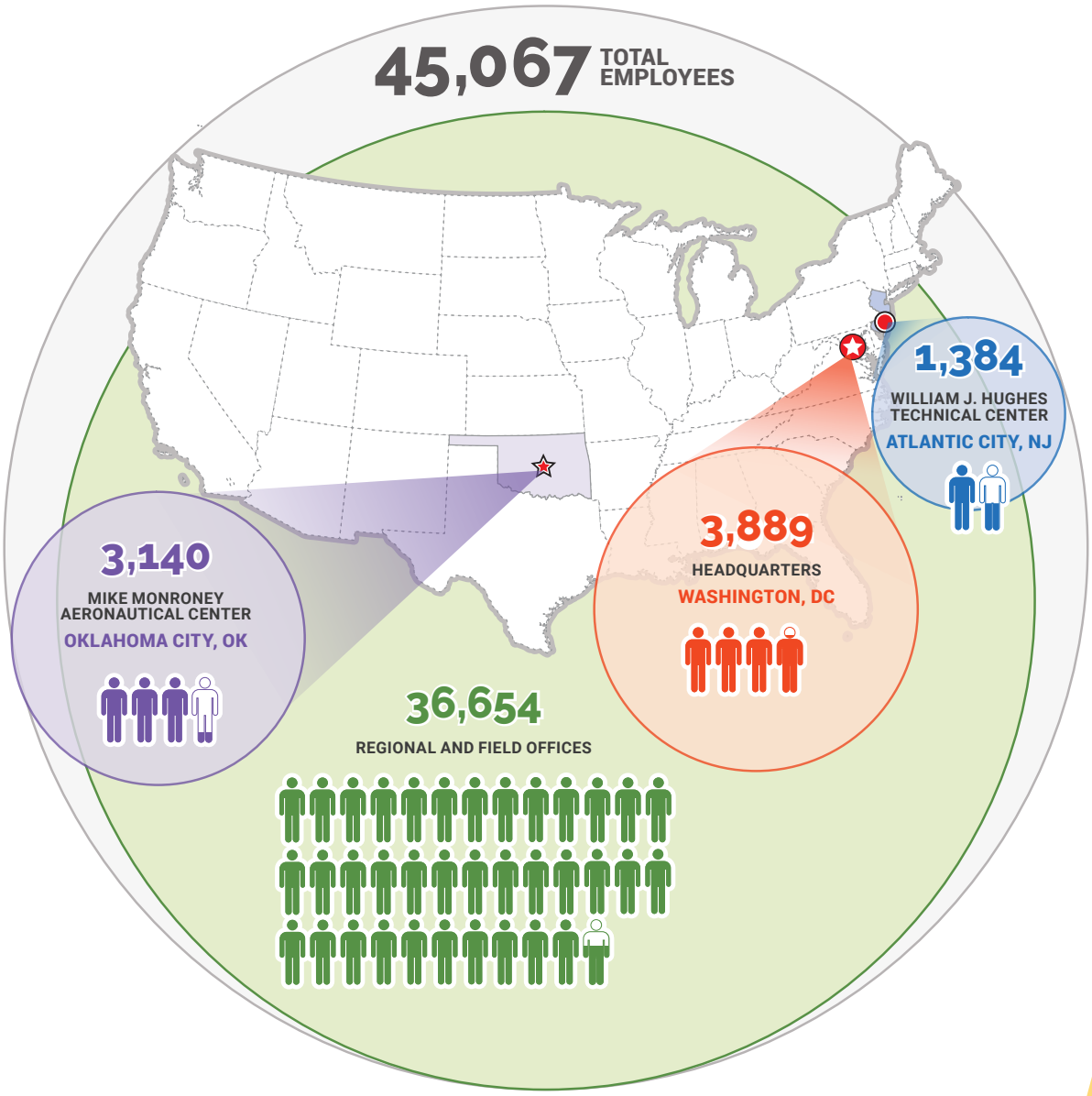
PEOPLE ARE OUR STRENGTH

Our success depends on the respect, diversity, collaboration, and commitment of our workforce.

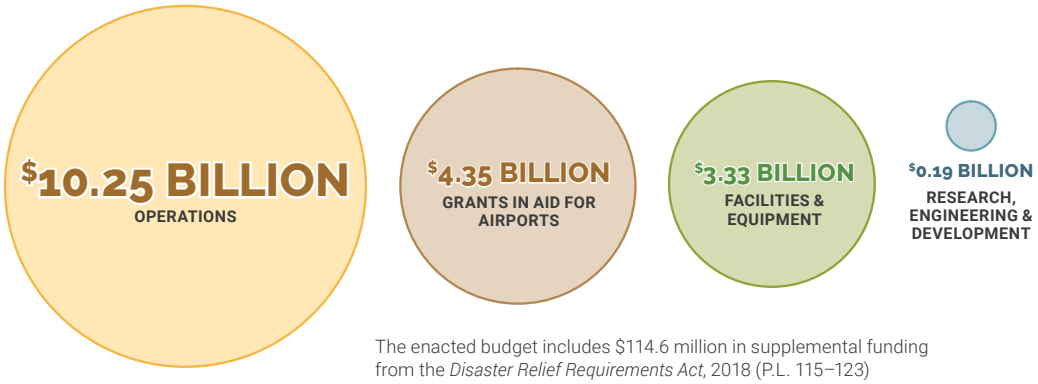
INNOVATION IS OUR SIGNATURE

We foster creativity and vision to provide solutions beyond today's boundaries.

IN A DAY'S WORK



$18.12 BILLION BUDGET ENACTED FOR FISCAL YEAR 2018



The enacted budget includes $114.6 million in supplemental funding from the *Disaster Relief Requirements Act*, 2018 (P.L. 115–123)

Foreword

The Federal Aviation Administration (FAA) is part of the U.S. Department of Transportation (DOT). By directives, the Office of Management and Budget (OMB), which implements the Chief Financial Officers Act of 1990, requires the FAA to prepare financial statements separate from those of the DOT. The FAA consolidates its key data and information and provides it to the DOT to incorporate into their corresponding reports. Although the FAA is not required to prepare a separate Agency Financial Report or Performance and Accountability Report (PAR), it recognizes that it can better demonstrate the agency's accountability by presenting performance, management, and financial information using the same statutory and guidance framework as that used by the DOT. For this reason, the FAA has produced its own PAR since fiscal year (FY) 2002.

FAA is committed to safety for the flying public and fulfilling its mission in a fiscally responsible and transparent manner. This commitment is ongoing and the FAA is proud of the recognition we have received for our accountability. In 14 of the last 15 years, the FAA has received the prestigious Certificate of Excellence in Accountability Reporting (CEAR) Award from the Association of Government Accountants (AGA). In more recent years, the AGA has also awarded special "best in class" awards for particular elements of reports that are considered to be the best across all of government. We are also extremely honored to have been recognized with a special best in class award seven times. Last year, we received a special best-in-class award for the most innovative presentation of a matter of wide public interest. The presentation was a graphic explaining what's in the price of an airline ticket. Because of the popularity of that particular graphic, we have featured it again this year on page 27.

These 21 awards are indicative of the commitment the FAA has made to transparent and informative reporting to our stakeholders, in reporting financial and program performance clearly and understandably, and in candidly assessing our results. The PAR is an important tool for the FAA to improve its performance and financial accountability and to help the DOT and the federal government excel in providing high-quality services and products to the taxpayers it serves.

DANIEL K. ELWELL

A Message from the Administrator

I am proud to lead the FAA as we reach a big milestone — the FAA is celebrating 60 years of safety. President Eisenhower created the FAA when he signed the Federal Aviation Act of 1958. That's the same year that National Airlines leased a Boeing 707 from Pan American World Airways, and became the first U.S. airline to fly jet aircraft in our national airspace.

Milestone anniversaries like this one often remind us to look back on our history and where we came from. I personally look back to my fifth grade teacher. He was a private pilot who said to the class that he would take up any student who wanted to fly. Of course I raised my hand, and we went out in his Cessna 150. I remember that flight vividly, seeing my neighborhood from 3,000 feet in the air. The flight was like a dream come true, and I've spent a lifetime in aviation since then.

For the FAA, we're looking back on 60 years of safety. Our dedication to safety has allowed aviation to become the safest form of transportation in the world.

The earliest days of flight were filled with trial and error, and our improvements in safety would usually come after lives were lost. But today, the work of the FAA has become the gold standard. We use data and a risk-based approach to identify and address risks before they turn into accidents. We also partner with industry to collect and analyze data, looking for meaningful trends. Over the last 20 years, commercial aviation fatalities in the U.S. have decreased by 95 percent. The fatality rate for general aviation has declined almost 23 percent over the last five years.

The FAA is also making a difference in its effort to modernize the national airspace, an effort we have been calling NextGen. We're moving from an air traffic control system based on radar technology to one that takes advantage of satellite-based technology. We're making it possible for pilots and air traffic controllers to send precise, digital messages that improve efficiency and reduce the kinds of errors that result from verbal communication.

> **"the FAA is celebrating 60 years of safety"**

The FAA's modernization effort is no longer "in development." We have already built the foundations and brought new capabilities into the national airspace. Going forward, we will integrate these new capabilities into our day-to-day operations.

The FAA has made a lot of progress, and we have the opportunity to take a bold look at the future. We're developing new approaches to integrating unmanned aircraft systems and commercial space activity into the national airspace. We're re-examining our regulations, streamlining the rules and making them easier for industry to navigate. All of these activities are described in the following pages of this report, along with information about the FAA, its mission and accomplishments, and its proud history over the past 60 years.

Performance Highlights

During Fiscal Year (FY) 2018, the FAA has been developing a new strategic plan that will establish long-term objectives for the agency and align with the priorities included in the Department of Transportation's (DOT) strategic plan. These priorities are safety, infrastructure, innovation, and accountability. The FAA's

Above: The Orville Wright Building, one of two that make up the main FAA Headquarters complex. (The other, not shown, is the Wilbur Wright Building.)

FY 2019 Performance and Accountability Report will reflect this new structure. While we continue to develop our new strategic plan, the Performance and Accountability Report for FY 2018 follows the structure of the FAA's current plan, organizing our performance goals according to four strategic priorities: make aviation safer and smarter; deliver benefits through technology and infrastructure; enhance global leadership; and empower and innovate with the FAA's people. This year's report will not include performance targets for FY 2019 while we develop a set of performance measures for the new strategic plan.

In FY 2018, we achieved our target for 13 out of the agency's 15 performance measures. A summary of results for all 15 performance measures is provided on pages 20–21 in the Management's Discussion and Analysis section.

Seven of the 15 performance measures support DOT priorities. These priorities are reflected in the new performance plan the Department completed this year. As noted below, the FAA successfully achieved all seven of the DOT priorities.

- **Commercial Air Carrier Fatality Rate**: With a result of 0.1 fatalities per 100 million people on board, the FAA achieved its goal of not exceeding 6.2 fatalities per 100 million people on board.
- **Runway Incursion Rate**: The FY 2018 result of 0.132 serious runway incursions per million operations was below the goal of not exceeding 0.395.
- **General Aviation Fatal Accident Rate**: The year-end result of 0.89 fatal accidents per 100,000 flight hours was below our target of not exceeding 1.00.
- **Unmanned Aircraft Systems – Authorizations**: With an average time to process airspace authorizations in FY 2018 of 50 days, the FAA achieved its goal of not exceeding an average time of 72 days.
- **Unmanned Aircraft Systems – Waivers**: With an average time to process airspace waivers in FY 2018 of 17 days, the FAA achieved its goal of not exceeding an average time of 50 days.
- **NextGen Advisory Committee Recommendations**: With a year-end result of achieving 91.3 percent of NextGen Priorities Joint Implementation Plan commitments; the FAA achieved its goal of meeting 80 percent of its commitments.
- **Major System Investments**: The FY 2018 result of 90.5 percent of the major baselined acquisition programs being within 10 percent of the current cost, schedule, and technical performance baseline is above the goal of 90 percent.

Detailed information is in the Performance Results section, which begins on page 34.

Accountability

The FAA continues its commitment to ensuring transparency and accountability to the public while achieving our mission. The performance and financial data in this report are complete, accurate, and provide a comprehensive representation of agency results. Furthermore, for the twelfth consecutive year, independent auditors gave our agency an unmodified audit opinion on our financial statements.

After obtaining audit opinions with no material weaknesses for nine years in a row, our financial statements last year reflected a material weakness. We had changed our method of estimating environmental decommissioning liabilities, which introduced an error into our FY 2017 third quarter unaudited financial statements. Since then, we have corrected our methodology and put better controls in place to ensure that changes to estimation methods are sound. I am proud that this year we have again obtained an unmodified audit opinion with no material weaknesses. The independent auditors' report is on page 73, and my statement of assurance is on page 31.

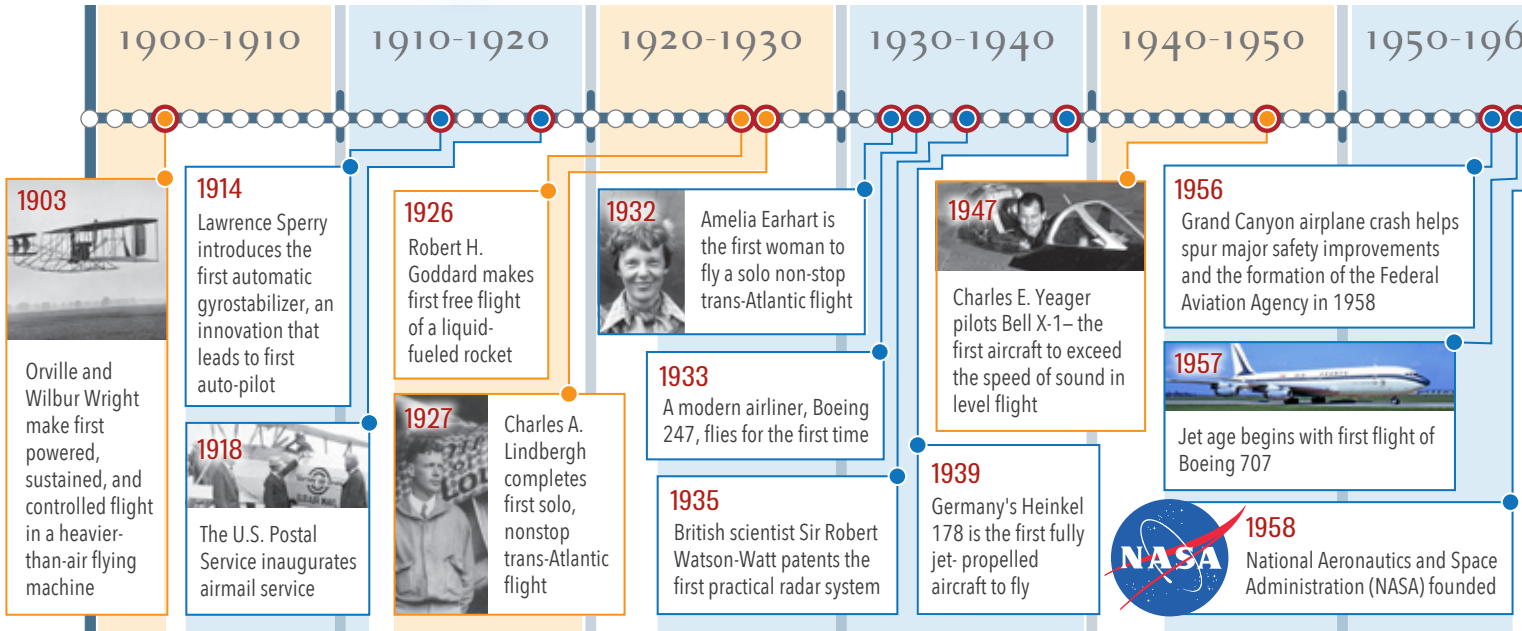
The FY 2018 Performance and Accountability Report, as well as a summary document, can be accessed online at ***https://www.faa.gov/about/plans_reports/#performance***.

Conclusion

Since the day when the Wright brothers made our dreams of flight a reality, aviation has seen great advances. It has become central to the way we live and do business. Now transformational progress is with us again with developments in unmanned aircraft systems, commercial space transportation, and supersonic aircraft. The challenges posed by these rapid changes in aviation technology will require new thinking about the agency and how we do our work. I know the FAA is up to this task just as we have been meeting challenges for the past 60 years.

DANIEL K. ELWELL
Acting Administrator
November 9, 2018

Management's Discussion & Analysis



History of Modern Aviation and the Creation of the FAA

Orville Wright made the first sustained powered flight on December 17, 1903, in a plane that he and his brother Wilbur built. This 12-second flight led to the development of the first practical airplane in 1905. The early twentieth century witnessed countless aviation developments as new planes and technologies entered service. During World War I, the airplane proved its effectiveness as a military tool and, with the advent of early airmail service, showed great promise for commercial applications.

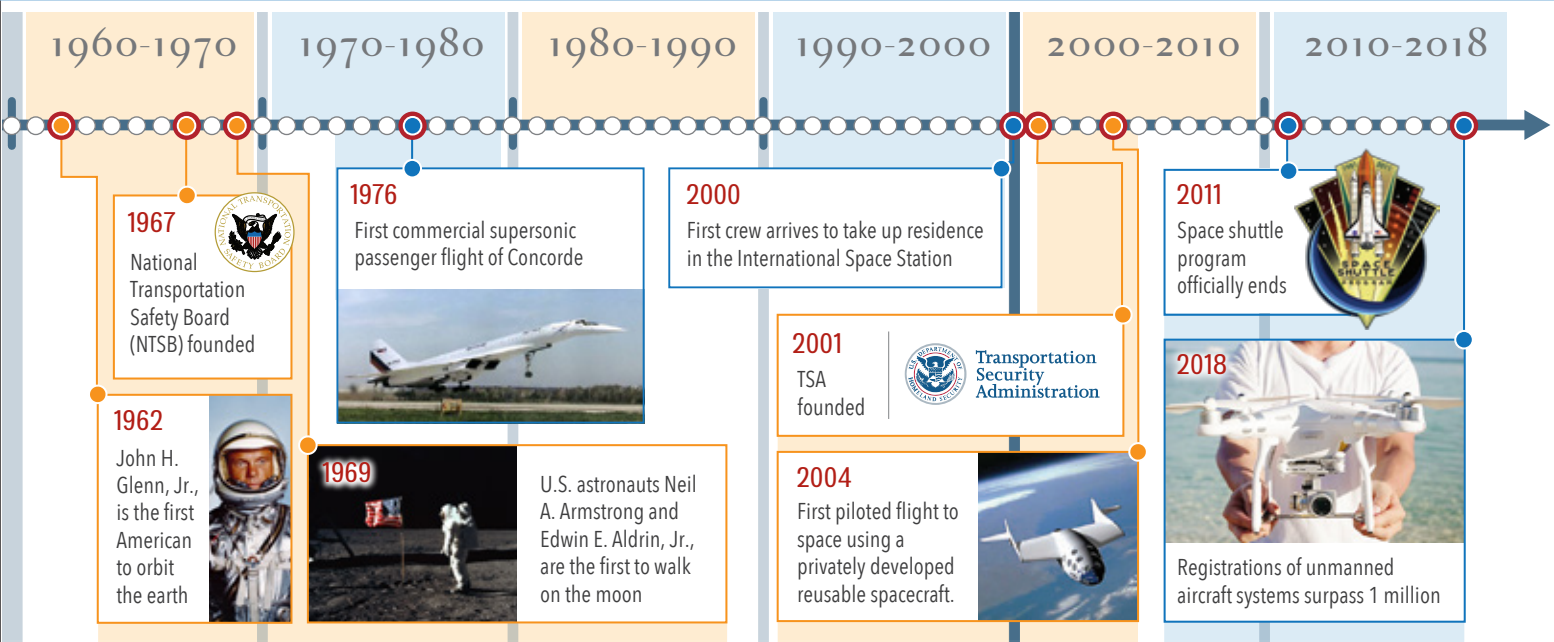
The first lighted flight path projected into the sky was a 72-mile strip between Dayton and Columbus, Ohio, constructed by the Army in 1921 using rotating beacons, field floodlights, and flashing markers. As air travel increased, some airport operators began to improve safety by providing an early form of air traffic control. Early controllers stood on the field and waved flags to communicate with pilots. Development of radio navigation in the 1920s was conducted by the Post Office Department, the Navy, the Army, and the Bureau of Standards using radio transmitters on the ground and aircraft receivers with directional antennas on board. The Bureau of Standards, the Army, and other sources developed a radio system during the 1920s that would guide an aircraft along a chosen course. This system required only simple airborne equipment. With the placement of radio beacons along the flight path, air commerce in the United States grew, even during the Great Depression of the 1930s.

On June 30, 1956, a Trans World Airlines Super Constellation and a United Airlines DC-7 collided over the Grand Canyon in Arizona killing all 128 people on board the two airplanes. The collision occurred while the aircraft were flying under visual flight rules in uncongested airspace. The accident dramatized the fact that even though U.S. air traffic had more than doubled since the end of World War II, little had been done to mitigate the risk of midair collisions.

Accidents like this spurred passage of the Federal Aviation Act of 1958 that transferred Civil Aeronautics Administration functions to a new independent body: the Federal Aviation Agency (which became the Federal Aviation Administration).

Since Orville Wright's first sustained powered flight in December 1903, through the advances and events that led to the creation of the FAA and beyond, we've seen unimaginable ideas become reality: drones have become a worldwide phenomenon, space travel is now conducted by commercial entities, and reusable rocket boosters are landing on ships in the sea. Today's aviation environment is one of collaboration across many governmental agencies and private entities, all working together to usher in the next generation of aviation.

Opposite page: An aviation safety inspector works with an aviation mechanic at Reagan International Airport in Washington DC. Photo: FAA

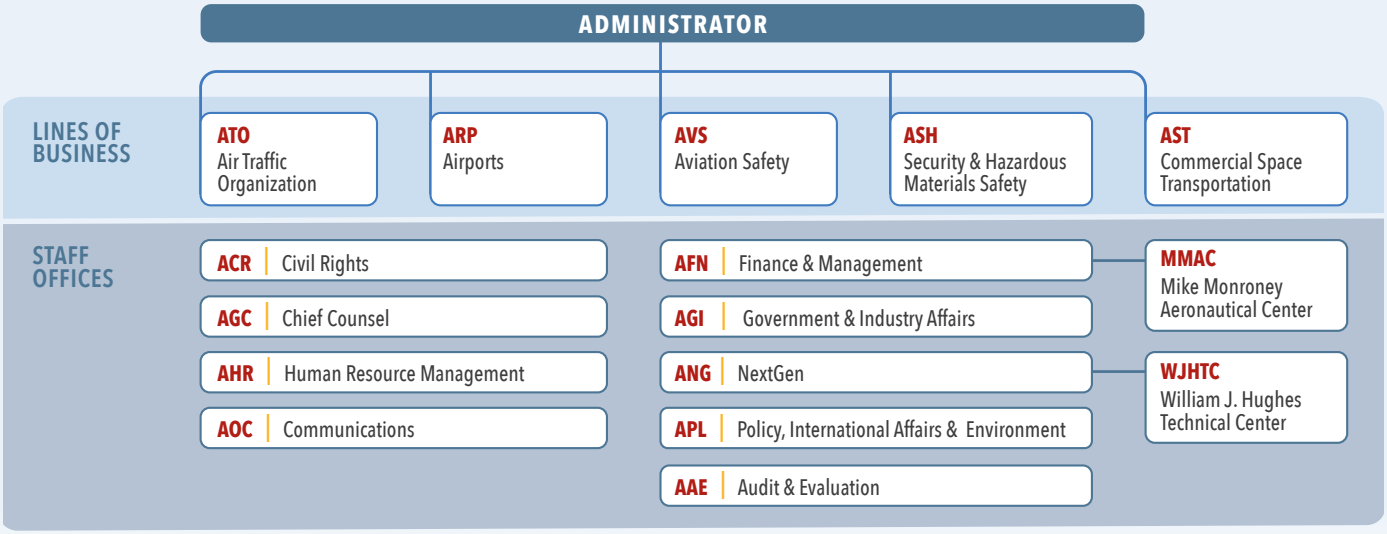


FAA Organization

The FAA fulfills its mission through five lines of business that work collaboratively to create, operate, and maintain the national airspace system.

- **Air Traffic Organization (ATO)**. Serves as the operational arm of the FAA. ATO is responsible for providing safe and efficient air navigation services for 29.4 million square miles of airspace. This represents more than 17 percent of the world's airspace and includes all of the United States and large portions of the Atlantic and Pacific Oceans and the Gulf of Mexico. ATO stakeholders include commercial and private aviation users and the military. ATO employees are the service providers — the controllers, technicians, engineers and support personnel whose daily efforts keep aircraft moving safely and efficiently through the nation's skies.
- **Airports (ARP)**. Provides leadership in planning and developing a safe and efficient national airport system; is responsible for all programs related to airport safety and inspections, and for standards of airport design, construction, and operation (including international harmonization of airport standards). ARP awards Airport Improvement Program (AIP) grants and approves passenger facility charge collections. ARP is also responsible for national airport planning and environmental and social requirements. In addition, ARP establishes policies related to airport rates and charges, compliance with grant assurances, and airport privatization.
- **Aviation Safety (AVS)**. Develops, establishes, administers, and enforces safety standards for all parts of the aviation industry, impacting every facet of domestic and international civil aviation safety. AVS is responsible for the certification of aircraft, airmen (pilots, mechanics, and other designees), and aviation entities (air carriers, charter operators, flying schools, training centers, etc.).
- **Security and Hazardous Materials Safety (ASH)**. Protects critical FAA assets, personnel, and the flying public from security risks, including criminal, terrorist, and insider threat actions. This is done through 24/7 emergency preparedness and response; global aviation situational awareness; intelligence threat identification, warning and analysis; robust personnel and facility security programs; and identification issuance. ASH collaborates within FAA and with interagency, industry, and foreign partners to provide national security support and to ensure the safety of the transportation of hazardous materials (HAZMAT) in air commerce. This helps to prevent HAZMAT-related accidents or incidents aboard aircraft using targeted, risk-based oversight, as well as education, outreach, and engagement both domestically and internationally.
- **Commercial Space Transportation (AST)**. Ensures protection of the public, property, and the national security and foreign policy interests of the United States during commercial launch or reentry activities through licensing launches, reentries, and launch and reentry sites. AST also encourages, facilitates, and promotes U.S. commercial space transportation.

The FAA has nine staff offices that support these lines of business and accomplishments of the agency's mission.



Key among these staff offices are:

- **Finance and Management (AFN)**. Streamlines agency functions to ensure they are delivered as effectively and efficiently as possible. AFN improves accountability and enhances operational efficiency through the responsible stewardship of FAA resources. AFN is comprised of the following offices:
  - **Financial Services**
  - **Acquisition and Business Services**
  - **Information & Technology Services**
  - **Regions and Property Operations**
  - **Aeronautical Center**. The Mike Monroney Aeronautical Center (MMAC) in Oklahoma City, OK, provides services in support of Center activities and agency programs including: logistics, enterprise business, software design, training, course design, and equipment/ management services. The MMAC also trains air traffic controllers and the technicians who repair and maintain airspace supporting systems and equipment in the field. The MMAC provides technological training, national partnerships, logistics support, simulation, and medical research.
- **NextGen (ANG)**. The NextGen Office provides leadership in planning and developing the Next Generation Air Transportation System. This office coordinates NextGen initiatives, programs, and policy development across the FAA. ANG also works with other federal and state government agencies, the FAA's international counterparts, and members of the aviation community to ensure harmonization of NextGen policies and procedures.
- **Technical Center**. The William J. Hughes Technical Center, located in Atlantic City, NJ, is the FAA's air transportation laboratory and national scientific test base for research and development, test and evaluation, and verification and validation in air traffic control, communications, surveillance, navigation, traffic flow management, and weather systems. The Technical Center supports advancement in airport and aircraft safety, human factors and separation standards, system development, and cyber security. These laboratories provide a platform to explore, integrate, and evaluate aviation concepts from initial concept to deployment in the airspace system.

FAACTOID

THE FAA MAINTAINS FAA-operated or FAA-contracted towers at more than **500 AIRPORTS**

For more information about FAA lines of business and staff offices, please visit ***www.faa.gov/about/office_org***.

Above: An air traffic coordinator and two operations managers at the tower at Dallas-Ft. Worth International Airport. Photo: FAA

Major Accomplishments

Safety

Safety Management Systems (SMS)

This past year the FAA reached a major milestone in the implementation of safety management systems. Safety management systems are a structured process aimed at ensuring safety is given the same level of priority as an organization's other core business processes. In 2015, the FAA required all commercial air carriers to implement safety management systems and receive FAA certification for them by March 9, 2018. FAA worked collaboratively with industry to define SMS and to ensure all carriers were approved prior to the deadline. In addition, two aircraft manufacturers have voluntarily integrated SMS into their operations.

Using a safety management system, an organization examines the safety of its operations and identifies potential problems that could lead to incidents or accidents. Organizations with a safety management system in place use specific methods to analyze, predict, and prevent hazards from employee reports and data collection. Part of the process also includes monitoring the system itself for effectiveness. Implementing a safety management system changes the safety culture and practices of an organization's leadership, management, and employees.

The FAA has also instituted a risk-based decision-making approach within our own safety management system, holding ourselves accountable to the same standards as industry. This effort helps the FAA make decisions based on safety risk, and enables the FAA to direct resources toward the most challenging safety issues.

Runway Incursion Mitigation Program

The FAA has made improvements at 28 locations across the country to prevent runway incursions. Runway incursions occur when an aircraft, vehicle, or person is incorrectly present on the protected area of an airport's surface that is designated for the landing and take-off of aircraft. Runway incursions are indicators of a serious safety problem that could result in an aircraft accident.

The design of an airfield has been identified as a primary factor that contributes to runway incursions. The FAA has analyzed national runway incursion data to develop an inventory of locations where risk factors may contribute to a runway incursion. The FAA initiated the Runway Incursion Mitigation Program, a comprehensive, multi-year program to help airports mitigate risk at their locations. The FAA has a long-standing partnership with the aviation community to help airports resolve safety issues.

The Runway Incursion Mitigation Program has resulted in improvements at 28 locations as of August 2018. Before introduction of the program, these 28 locations experienced 297 runway incursions. After implementation of the program, the same 28 locations had only 8 runway incursions; saving lives as well as airline equipment and revenue. The FAA will continue to track these locations to ensure the mitigations are effective, and the FAA will work with the airports on adjustments as needed.

Airport Infrastructure

In FY 2018, the FAA awarded $3.46 billion in grants to airports across the country, making vital investments in the nation's transportation infrastructure. These grants include investments in runways, taxiways, aircraft parking areas, terminals, aircraft rescue and firefighting vehicles, snow removal equipment, and firefighting training facilities.

As required by law, the FAA maintains a list of airports that are significant to the national air transportation system (i.e., they are rated on a number of criteria including but not limited to public use, number of flights, receive U.S. mail service, etc.). This list currently exceeds 3,300 airports across the country. If deemed significant, airports are eligible to receive federal grants under the Airport Improvement Program. More than 1,000 of these airports are located in areas that are outside of metropolitan or micropolitan statistical areas. This year the FAA issued more than 430 grants to such airports, totaling more than $200 million.

Our air transportation system connects communities, businesses, families, and friends. For people living in rural communities, it can do more than that. A general aviation airport in rural America may provide the primary access to vital services such as mail

Hooper Bay Mail Delivery, Hooper Bay, Alaska. Photo: FAA

delivery and medical services. During winter in some northern communities, the only access to those communities may be through aviation. Aviation becomes the community lifeline, and access to safe airports becomes even more critical during bad weather. For many small remote communities that may not have a single resident doctor, air transport provides patients access to emergency medical services.

Unmanned Aircraft Systems (UAS)

Integration Pilot Program (IPP)

U.S. Secretary of Transportation Elaine L. Chao announced the selection of 10 state, local, and tribal governments as participants in the Unmanned Aircraft Systems Integration Pilot Program (IPP). First announced last October, this White House initiative partners the FAA with local, state, and tribal governments, which then partner with private industry to safely explore the further integration of drone operations.

The pilot program will evaluate a variety of operational concepts, including night operations, flights over people, flights beyond the pilot's line of sight, and package delivery. It will also evaluate detect-and-avoid technologies and the reliability and security of data links between pilot and aircraft. The program will support immediate opportunities for commerce, photography, emergency management, agricultural support, and infrastructure inspections. It will also open a dialogue to help balance federal airspace authorities with state and local concerns regarding UAS technology and public safety.

In a span of two months, the FAA evaluated 149 applications for participation in the pilot program, and selected 10 lead participants. The FAA also reached out to all 139 applicants who were not selected to advise them of their operational options and provide additional resources. IPP operations started in August 2018, including an initial package delivery operation, power line inspection, feral hog trap re-baiting, medical package delivery, and media coverage of a football game.

Low Altitude Authorization and Notification Capability (LAANC)

This year the FAA collaborated with industry to deploy an automated system to process airspace authorizations for small UAS operators nationwide. This system is known as Low Altitude Authorization and Notification Capability (LAANC).

Under the FAA's small drone rule, operators must secure an authorization from the agency to operate in any airspace controlled by an air traffic facility. The FAA has been processing these requests manually, which is time consuming and resource intensive. To process the approvals more efficiently, the agency deployed the LAANC prototype at several air traffic facilities in November 2017 to evaluate the feasibility of a fully automated system. Based on the prototype's success, in late April the agency conducted a nationwide test. Between April and September 2018, LAANC was deployed at nearly 300 air traffic control facilities covering approximately 500 airports. As of October 1, 2018, over 35,000 authorizations have been granted in controlled airspace using this capability.

Drone operators using LAANC can receive near real-time airspace authorizations. This dramatically reduces the 90+ day wait experience using the manual authorization process and allows operators to quickly plan their flights. Also, the FAA can see where planned drone operations will take place.

LAANC uses airspace data provided through the FAA's UAS facility maps. The maps show the maximum altitude around airports where the FAA may authorize operations as well as airport and airspace data, Notices to Airmen, and airspace restrictions. LAANC gives drone operators the ability to interact with the data and provides automatic authorization requests to the FAA.

The FAA continues to actively engage with industry to improve LAANC and advance the integration of drones and their operators into our culture of safety and responsibility, without stifling innovation and potential for this growing industry. LAANC demonstrates that a fully automated solution offered by industry and enabled by data sharing with the FAA is viable, and it is an important step toward realizing UAS Traffic Management.

NextGen

The FAA is modernizing its air traffic control system through NextGen, an effort that is transitioning the national airspace system from ground-based radar to satellite-based navigation, from voice to digital communication, and from point-to-point data to a fully integrated information management system. These initiatives are changing how the aviation industry manages, navigates, and communicates in our national airspace. Three major components of NextGen are Data Communications, Time Based Flow Management, and Terminal Flight Data Manager.

Data Communications (DataComm) supplements voice communication between air traffic controllers and pilots with digital text-based messages. This helps pilots and air traffic controllers communicate more efficiently and effectively, and with less risk of miscommunication than with voice. DataComm is expected to save the industry more than $10 billion and the FAA $1 billion over the 30-year life cycle of the program. The FAA completed the deployment of DataComm services at 62 airports. This implementation included seven more airports than were originally baselined, and was completed over a year ahead of the original plan for 55 airports. In addition, in FY 2018 the FAA began to roll out Data Comm services in high altitude airspace and started functional testing at Indianapolis, Kansas City, and Memphis Air Route Traffic Control Centers. This functional testing is proceeding as planned, and the program is moving forward with deployment to all 20 centers by the end of 2019.

Time Based Flow Management (TBFM) allows controllers to direct aircraft to a specific location at a specific time. This allows controllers to meter the flow of aircraft throughout the national airspace instead of managing traffic by maintaining space between each aircraft, which translates into improved traffic flow and more efficient operations. In FY 2018, TBFM completed the most recent Integrated Departure and Arrival Capability implementation at Oakland Center and associated towers.

Terminal Flight Data Manager (TFDM) streamlines the sequence of aircraft scheduled to take off, while accounting for aircraft scheduled to arrive, maximizing airport efficiency and reducing delays. In FY 2018, the FAA completed the delivery and installation of five test and support systems at the FAA's Technical Center and one operational system at Sky Harbor International Airport in Phoenix. The FAA began development testing on October 2, and will follow with operational testing. TFDM operational testing is planned to be completed by the first quarter of FY 2020, followed by initial operating capability at the Phoenix key site in January 2020.

Below: Cockpit showing automatic dependent surveillance broadcast (ADS-B) display.

NEXTGEN PROGRAMS

AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST (ADS-B) is the FAA's satellite-based successor to radar. ADS-B makes use of GPS technology to determine and share precise aircraft location information, and streams additional flight information to the cockpits of aircraft equipped with ADS-B avionics.
http://www.faa.gov/nextgen/programs/adsb/

COLLABORATIVE AIR TRAFFIC MANAGEMENT TECHNOLOGIES (CATMT) is a suite of enhancements to the decision-support and data-sharing tools used by air traffic management personnel. These enhancements will enable a more collaborative environment among controllers and operators, improving efficiency in our nation's airspace.
http://www.faa.gov/nextgen/programs/catmt/

DATA COMMUNICATIONS (Data Comm) enables controllers to send digital instructions and clearances to pilots. Precise visual messages that appear on a cockpit display are loadable into an aircraft's flight computer.
http://www.faa.gov/nextgen/programs/datacomm/

SYSTEM WIDE INFORMATION MANAGEMENT (SWIM) is the information-sharing platform that allows members of the aviation community to access the specific information they need, in the way that they need it, to facilitate an innovative and efficiently run national airspace system.
http://www.faa.gov/nextgen/programs/swim/

NEXTGEN WEATHER will help reduce weather impact by producing and delivering tailored aviation weather products via SWIM, help controllers and operators develop reliable flight plans, make better decisions, and improve on-time performance. NextGen Weather is accomplished through collaboration between the FAA, National Aeronautics and Space Administration and National Oceanic and Atmospheric Administration.
http://www.faa.gov/nextgen/programs/weather/

DECISION SUPPORT SYSTEMS provide air traffic controllers with the tools they need to optimize traffic flow across the national airspace. These systems include Terminal Flight Data Manager, which shares real-time data among controllers, aircraft operators, and airports so they can better stage arrivals and departures for greater efficiency on the airport surface. Decision Support Systems also include Time Based Flow Management (TBFM), which uses time instead of distance to help controllers sequence air traffic. Compared to the traditional miles-in-trail process to separate aircraft, TBFM provides a more efficient traffic flow that reduces fuel burn, lowers exhaust emissions, and increases traffic capacity.
https://www.faa.gov/nextgen/how_nextgen_works/new_technology/dss/

Commercial Space Transportation

Commercial space travel has quickly evolved from a dream to reality, and today we are seeing developments that seemed impossible not long ago. In February 2018, SpaceX launched its Falcon Heavy, carrying a Tesla Roadster into space. The Falcon Heavy is currently the world's most powerful launch vehicle in operation. Multiple companies are developing and testing vehicles capable of transporting the public into space, and the public could get its first chance to experience space tourism as soon as next year.

FAA plays a critical role in commercial space transportation, ensuring the protection of public safety during launch and reentry operations and encouraging, facilitating, and promoting the U.S. commercial space transportation industry. The FAA licensed a record number of launches in FY 2018 — a total of 32 commercial space launches, 14 more than were launched in FY 2017.

In order to keep pace with a quickly expanding and innovative industry, and to allow the industry to continue its growth without regulatory burden, the FAA is streamlining and updating its commercial space regulations. The FAA plans to move to a performance-based framework that would leave specific design solutions up to the applicant. The FAA also plans to consolidate multiple parts of its commercial space regulations into a single part. This year the FAA formed three aviation rulemaking committees. The committees are comprised of representatives from the space and aviation industries and they will advise the FAA on how best to streamline and improve its regulations.

Falcon Heavy lifting off from Kennedy Space Center's Launch Complex 39A. Photo: SpaceX

Regulatory Reform

The FAA continually seeks to improve its regulations in order to address safety concerns and help industry meet FAA requirements. For example, we are moving towards performance-based regulations where appropriate, to allow for innovation and flexibility. The President's Executive Order 13771, *Reducing Regulation and Controlling Regulatory Costs*, requires that for each new regulation issued, at least two prior regulations be identified for elimination, and that the total cost of all new regulations, including repealed regulations, shall be no greater than zero. The FAA has effectively implemented regulatory reform efforts consistent with this Order while maintaining a safe system. All deregulatory action taken by the FAA provides benefit to the industry or to the American taxpayer with no adverse effect on safety. For fiscal year 2018, the FAA did not issue any new regulatory actions, and completed five deregulatory actions with an estimated annualized cost savings of $64.3 million.

The FAA has also been working to implement Executive Order 13807, *Establishing Discipline and Accountability in the Environmental Review Process for Infrastructure Projects*, and the "One Federal Decision" framework for improving the environmental review process for infrastructure projects. This framework requires that each major infrastructure project have a lead federal agency that is responsible for navigating the project through the federal review process, requires agencies to speak with a coordinated voice when conducting environmental reviews and making authorization decisions, and that agencies conduct their reviews within certain timeframes. In addition, the FAA set an agency goal to reduce the average time to complete environmental reviews to 24 months, and achieve on-schedule performance for 90 percent of its projects over the next five years. The FAA has consistently met interim targets, by targeting aspects of the permitting and environmental review process that have caused delays in prior projects. The FAA is on track to complete environmental impact statements for the first two projects managed under the new One Federal Decision framework in an average of 26 months.

Ongoing Challenges

Surface Safety

Today we are experiencing the safest period in air transportation history. One reason for this is that the FAA and the aviation industry work together to confront risks before they lead to accidents. One risk that is an ongoing challenge for the FAA is wrong surface operations. Wrong surface operations happen when an aircraft lands or departs on the wrong runway or taxiway, or even at the wrong airport.

From October 2016 to July 2018, the FAA recorded 596 attempted or actual wrong surface operations, 86 percent of which were general aviation operations. Approximately half of the events were wrong-surface landings or takeoffs, and the rest were attempts that were thwarted by either the pilot or the controller intervening before the operation was completed. In the context of 42,000 operations per day, wrong surface operations remain a relatively rare occurrence, but the FAA seeks to drive that rate lower.

The FAA has already taken a number of actions as part of a strategy that includes improved technology, as well as collaboration and outreach with industry. For example, the FAA has enhanced safety technology to alert air traffic controllers when aircraft are approaching taxiways, and worked with airports to improve airport geometry to help pilots navigate landing surfaces. The FAA also added surface safety to recurrent training for air traffic controllers, and reached out to pilots, flight instructors, and flight schools to increase awareness. In August, the FAA and industry stakeholders held a safety summit that examined causes of wrong surface operations, discussed ways each party can address the issue, and established solutions and a common understanding of success.

Noise

Changes in aviation activity levels, aircraft flight paths, and runway use are just some of the many actions the FAA takes every day to maintain and improve the world's safest most efficient airspace system. As we do this, some new flight paths are placing aircraft over people that have never experienced overflights, or who are now experiencing an increased frequency of flights. While we have alleviated aircraft noise concerns for a majority of the population through quieter aircraft and new more precise flight paths, those still experiencing aircraft noise are vocal in expressing concerns, engaging their local officials, and requesting flight paths be moved, shifting aircraft noise from one community to another. In many cases there are physical, aerodynamic, and operational constraints on where aircraft can fly.

Recognizing that our partnerships with communities and stakeholders are a significant component in preparing the national airspace for the future, the FAA in FY 2018 continued its renewed approach to community engagement. The FAA has been supporting community forums called roundtables, which bring together airport, community, and airline industry representatives to establish ongoing dialogues and encourage collaborative decision-making. At roundtables, affected parties are provided opportunities to voice their needs and concerns. This approach allows all interested parties the opportunity to develop a collaborative localized plan. FAA representatives can participate in roundtable meetings to provide technical information and advice.

The FAA will continue to work with other stakeholders to face the challenge of addressing community concerns over aircraft noise, and roundtable discussions are just one way the agency is working to give stakeholders and communities a chance to participate in the discussion. The FAA's renewed advocacy is all about bringing the larger community to the table to make sure people understand the value these changes bring. Robust public engagement is critical to our agency's success in modernizing the national airspace.

Supersonic

It's been 15 years since the Concorde let passengers fly at supersonic speed and travel from the U.S. to Europe in less than four hours. Now, several American companies are developing new civil supersonic aircraft to once again offer passengers the benefits of traveling faster than the speed of sound. Advancements in aircraft design, introduction of new materials, and engine technologies offer the possibility of economically viable civil supersonic aircraft. However, one of the challenges in developing these new aircraft is understanding and addressing noise. Current law requires the FAA to issue regulations that limit aircraft noise, but current regulations for supersonic flights may not adequately address the technology being considered today. The FAA's challenge is to develop noise standards that meet our responsibility under current law to protect public health and welfare, but do not inhibit innovation. In addition, the FAA's standards will need to be applied to or modified for new technologies that have not even been fully developed yet. The FAA has already started the work necessary to develop these

standards so they are in place by the time supersonic flight becomes a reality again, but this challenge will be with us for several years to come.

Unmanned Aircraft Systems (UAS)

The FAA's commitment to the safe, secure, and efficient integration of UAS into the national airspace and the expansion of routine UAS operations requires resolving several key challenges, including security concerns raised by other federal agencies. While UAS offers multiple benefits to society, harmful actions by drone operators can pose great risk, whether those actions stem from ignorance, carelessness, or criminal intent. For example, in September 2017 a small drone damaged an Army Black Hawk helicopter, requiring it to make an emergency landing. The operator of the drone had no criminal intent, but was unaware of a temporary flight restriction in place while flying the drone and FAA regulations prohibiting flight beyond visual line of sight.

To address security concerns, the FAA has given priority to developing remote identification of UAS. To protect the safety of our national airspace and enable our law enforcement and national security partners to identify and respond to security risks, we must know who is operating in the airspace. As the FAA works to integrate UAS into the national airspace, the agency will continue to collaborate with its federal partners to develop policies and procedures that protect critical facilities and assets from UAS-based threats.

Another hurdle for UAS integration will be achieving greater public understanding of the requirements for safe UAS operations and building acceptance for the many benefits expanded UAS operations can deliver. To further this goal, the FAA is continually educating the UAS community on where operators can and cannot fly their drones. For example, the FAA has used the UAS registration database to notify drone operators of important safety information. In 2018, efforts to remind registrants to stay away from wildfires and wildfire suppression efforts by first responders resulted in a 32 percent decrease in the number of drone incursions into wildfire zones. However, as new drone operators grow in number, reaching and keeping operators informed of the requirements will continue to pose a challenge.

Finally, the integration of UAS into the national airspace will require effective management from all levels of government. Traditionally, airspace has been the federal government's authority to manage, while state, local, county, and tribal authorities have maintained jurisdiction over where aircraft can take off and land. The system is now presented with drones that can take off and land anywhere. The FAA's UAS Integration Pilot Program gives the FAA the opportunity to work with cities, counties, and states and apply the lessons learned during the pilot program to develop together a plan for UAS intergration into the nation's airspace.

Automatic Dependent Surveillance-Broadcast (ADS-B)

Air traffic controllers started to use radar to manage commercial aircraft in 1952. Today the FAA is working on the successor to radar technology with the Automatic Dependent Surveillance — Broadcast (ADS-B) program, a part of the FAA's NextGen effort to modernize its air traffic control system. ADS-B uses GPS technology to determine the precise location of aircraft, providing air traffic controllers and pilots more frequent and accurate information to help keep aircraft safely separated in the sky and on runways.

In comparison to radar, ADS-B provides more accurate aircraft monitoring, greater visibility around mountains and large structures, expanded coverage of large areas such as the Gulf of Mexico, and more accurate data. In addition, ADS-B allows aircraft to fly more direct and cost-efficient flightpaths that reduce fuel burn.

ADS-B relies on both ground infrastructure as well as compatible equipment installed on the aircraft. The FAA has required that aircraft using the air traffic control system be equipped with ADS-B compatible technology by January 1, 2020, at which point the FAA will use ADS-B as the preferred means of tracking aircraft in the national airspace. Implementation by the 2020 deadline will be a challenge because of the number of aircraft that must be equipped with this technology. Currently 2,500 commercial and 39,000 general aviation aircraft have the ADS-B technology, but the FAA estimates there are thousands of aircraft that still must be equipped before the deadline.

The FAA is using a multifaceted plan of action to reach all aircraft operators to equip all aircraft. The FAA is encouraging ADS-B equipage through print, video, and social media messages. Additionally, the FAA created a comprehensive website that includes answers to frequently asked questions.

William J. Hughes Technical Center

It's been an exciting year for the William J. Hughes Technical Center (Technical Center) that culminated in a celebration of 60 years of aviation achievements. From 1958 to the present, many of the concepts, technologies and systems that keep flight safe and efficient were researched, developed, tested and began their nationwide deployment at the Technical Center. Today we continue that tradition and look forward to the future challenges in the aviation industry. The Center's highly technical and diverse workforce and its vast array of world class laboratory facilities provide a unique environment for advancing aviation technologies. The laboratories also provide the gateway for operational evolution and sustainment of deployed aviation system components. Continued advancement of laboratory and technology capabilities, partnerships with academia, and cultivation of our aviation workforce are the Technical Center's key focus areas.

Noteworthy 2018 accomplishments and activities include:

- Ronald Reagan Washington National Airport (DCA) Operational Assessment: The Airway Facilities Tower Integration Laboratory conducted a human-in-the-loop simulation and operational assessment of the impact of a new terminal for shorter flights and proposed changes to taxiways scheduled for completion between the years 2021 and 2023. The team developed simulation scenarios with input from the Washington Metropolitan Airport Authority for two different configurations of the airport and ran simulations with operational personnel from DCA Air Traffic Control Tower, concluding in a Safety Management Systems Assessment and a Safety Risk Management Document.
- Conducted research to improve predictive analysis models for turbofan engine containment systems. The results of this research will be used to improve system design capability to reduce high-risk uncontained engine failure events.
- Completed several major infrastructure projects, including a fire alarm system replacement, chiller replacements, roof replacements on several buildings on our campus, as well as implemented and trained personnel on an all-inclusive Emergency Notification System that unifies crisis communications across the campus.
- Delivered the completely redesigned National Aviation Research Plan for FY 2018. The redesigned Plan provides an improved and comprehensive view of the FAA's research and development portfolio that highlights the importance of that work to aviation safety and efficiency.
- The Test & Evaluation (T&E) organization tests, analyzes, and evaluates current and future systems that support flight in the national airspace to ensure that they meet specifications, satisfy requirements, and are operationally suitable. These services are primarily for the communication, navigation, surveillance, terminal automation, en route automation, flight services, and traffic flow management domains. In FY 2018, T&E delivered 83 test-related results to support investment and operational readiness decisions for 75 key acquisition programs.
- The Technical Center continues to seed and cultivate the FAA's workforce of the future through our Pathways Program. In FY 2018, the Technical Center recruited eleven new interns and converted two graduates to full time permanent employees. Also, through our Aviation Science, Technology, Engineering, and Math initiative, we hired nine interns from our Centers of Excellence program and two students from minority serving institutions, to assist the Technical Center in meeting its mission and goals.
- The Airport Technology Research and Development Branch completed the evaluation of new electrical infrastructure for Light Emitting Diode (LED) lighting circuits in September 2018. Testing was completed at Cape May Airport in New Jersey to assess the performance of LED lighting architecture in the airport environment, which could potentially provide significant cost savings at airports.

Performance Highlights

The FAA is charged with promoting the safety and efficiency of the nation's aviation system. We maintain the system's integrity and reliability through our broad authority to enforce safety regulations and conduct oversight of the civil aviation industry. Our strategic plans, annual business plans, human capital plans, program evaluations, annual PARs, and constant reevaluation of our efforts create a recurring cycle of planning, program execution, measurement, verification, and reporting. We have created a strong link between resources and performance. This link helps FAA focus on accomplishing its priorities while taking into account their costs and benefits.

Managing Performance

We manage organizational performance through a four-step process that is based on best practices borrowed from several private and public-sector organizations:

- **Set Goals**
- **Plan, Work, and Budget**
- **Monitor Work**
- **Assess Results**

Each year we improve on this strategy through adaptation and enhancements of technologies that support the process.

Set Goals

The first step in the performance management process includes consulting with management, employees, and stakeholders to identify areas to target for improvement. These areas include near-term priorities and long-standing management challenges. Goals, performance measures, targets, and initiatives are laid out in the business plans developed by each of the FAA's lines of business and staff offices.

Plan, Work, and Budget

The second step in evaluating our performance focuses on planning, which begins with reviewing the critical activities and resources required to achieve our goals. Budget formulation involves a series of steps that the FAA takes to determine where a program or activity stands at present, where it is going (i.e., reasonable expectations for progress), and what else could be done (i.e., alternative approaches) to achieve stated objectives. One of the basic objectives of the budget formulation process is to ensure that decision-makers have the information they need to determine how best to allocate resources to achieve goals.

Our complete FY 2018 Congressional Justification can be found at: ***https://www.transportation.gov/mission/budget/faa-fy-2018-budget-estimates***.

The FAA also has a section in a DOT-prepared document that provides highlights of the FY 2018 budget request. This document can be found at: ***https://www.transportation.gov/mission/budget/fiscal-year-2018-budget-highlights-book***.

In addition, our strategic initiatives and FY 2018 business plans for FAA organizations are available at ***https://www.faa.gov/about/plans_reports/#business_plans***.

Monitor Work

Monitoring occurs in the course of the various performance management activities that our executives and employees participate in each month.

The agency's overall governance model was revised in FY 2018 to streamline decision-making at the executive level. The revised model includes two groups — a Management Board and a Deputy's Meeting.

The Management Board provides agency-wide strategic direction and decision making for critical priorities. This includes setting short and long-term agency goals, as well as making annual budget and financial decisions. The Board is the highest deliberative body in the agency and the primary forum to assist the Administrator in setting the agency's direction.

The Deputy's Meeting is the primary forum to advise and assist the Deputy Administrator in monitoring all operational activities conducted by the FAA (e.g., workforce, IT, and air traffic facilities), and referring decisions needed on significant internal issues facing the agency to the Management Board.

The two groups create a transparent process with clear roles for making decisions and monitoring the agency's performance; the groups clarify decisions across the FAA and clearly communicate decisions through senior leadership.

An air traffic controller training on the Microprocessor En Route Automated Radar Tracking System (Micro-EARTS) at the Combined Center and Radar Approach Control facility in San Juan Puerto Rico. Micro-EARTS is a radar system automation platform that works to receive and integrate air traffic data from multiple surveillance systems and display the information to support air traffic control. Photo: FAA

Assess Results

This is the final, but critically important step in the performance management process. Using performance information, the agency looks for ways to learn from past performance and improve outcomes. Performance measures and targets support our mission to provide the American public with a safe and efficient aviation system. We have streamlined our strategic focus over the past several years. As our strategic management processes continue to mature and the focus becomes sharper, the number and mix of performance targets will shift. Targets are reviewed on a yearly basis to ensure that we are on track to meet future challenges.

Performance Goals

As previously discussed, to help our nation's airspace system better prepare for forecasted growth and future changes in the industry, the Administrator has outlined key strategic priorities to meet America's growing reliance on air travel. All of FAA's performance measures are linked to one of the four priorities.

- **Make aviation safer and smarter**
  Safety is the backbone of what the FAA does. The agency must build on safety management principles to proactively address emerging safety risks. The FAA wants to make smarter, system-level, risk-based decisions. This year, FAA achieved all eight of these goals. For a complete discussion of safety measures, see page 36.

- **Deliver benefits through technology and infrastructure**
  We must deliver the benefits of NextGen. This involves keeping NextGen on schedule and on budget, and assuring delivery of benefits to users. This year, the FAA was successful in achieving four out of five of its goals related to technology and infrastructure. For more information, please see page 48.

- **Enhance global leadership**
  The FAA plays an important leadership role to improve safety and air traffic efficiency across the globe. FAA will do this through shaping global aviation standards and enhancing collaboration and harmonization with other countries. The FAA achieved its target this year. A discussion of this measure is provided on page 57.

- **Empower and innovate with the FAA's people**
  FAA is preparing for the future by improving how it recruits and trains its workforce. FAA needs the leadership, technical, and functional skills to ensure the U.S. has the world's safest and most productive aviation sector. The FAA did not achieve its goal this year. A discussion of this measure can be found on page 60.

Performance at a Glance

Our FY 2018 performance is summarized in the following tables and discussed in detail in the Performance Results section. The measures are grouped below according to the Administrator's strategic priorities. In FY 2018, the FAA achieved 13 of the 15 performance targets. The FAA has noted the measures for which the data provided are preliminary. In previous years, the FAA has reported on performance targets for the upcoming fiscal year. The FAA is currently developing a new strategic plan that will include a different set of performance measures and a new organization for those measures. Performance targets for FY 2019 are not included in this report while the FAA continues its work on the new strategic plan.

Strategic PRIORITY:	Make Aviation Safer and Smarter					
Strategic OBJECTIVE:	Build on safety management principles to proactively address emerging safety risks by using consistent, data-informed approaches to make smarter, system-level, risk-based decisions.					
Performance Measure	**FY 2015 Results**	**FY 2016 Results**	**FY 2017 Results**	**FY 2018 Target**	**FY 2018 Results**	**FY 2018 Status**
Commercial Air Carrier Fatality Rate ✦ In FY 2018, the commercial air carrier fatality rate will not exceed 6.2 fatalities per 100 million people on board.	0.1	0.6	0.3[1]	6.2	0.1[2]	✓
Runway Incursions Rate ✦ Reduce Category A & B (most serious) runway incursions to a rate of no more than 0.395 per million operations.	0.302	0.380	0.159	0.395	0.132[3]	✓
System Risk Event Rate Limit the rate of the most serious losses of standard separation to 10 or fewer for every thousand losses of standard separation within the national airspace system.	2.62	2.66	2.24	10	2.97[3]	✓
IT Risk Management and Information Systems Security Address 80 percent of high value risks within 30 days. Continue oversight by the Cybersecurity Steering Committee to assure consistent risk acceptance decisions.	100%	100%	100%	80%	100%	✓
General Aviation Fatal Accident Rate ✦ Reduce the general aviation fatal accident rate to no more than 1.00 fatal accidents per 100,000 flight hours.	0.99	0.89	0.84[1]	1.00	0.89[2]	✓
Commercial Space Launch Accidents No fatalities, serious injuries, or significant property damage to the uninvolved public during licensed or permitted space launch and reentry activities.	0	0	0	0	0	✓
Unmanned Aircraft Systems (UAS)- Authorizations ✦ Reduce the average time for processing Part 107 airspace authorizations by at least 15 percent to an average of 72 days by September 30, 2018.	This is a new measure for FY 2018	This is a new measure for FY 2018	This is a new measure for FY 2018	72	50	✓
Unmanned Aircraft Systems (UAS)- Waivers ✦ Reduce the average time for processing Part 107 operational waivers to 50 days by September 30, 2018.	This is a new measure for FY 2018	This is a new measure for FY 2018	This is a new measure for FY 2018	50	17	✓

✦ This performance measure supports a DOT Agency Priority Goal. ✓ Target met ✘ Target not met

1 Preliminary estimate; National Transportation Safety Board will confirm in March 2019. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

2 Preliminary estimate; National Transportation Safety Board will confirm in March 2020. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

3 Preliminary estimate until the final result becomes available in January 2019. We do not expect any change in the final result to be significant enough to alter our year-end status of achieving the target.

Strategic PRIORITY: Deliver Benefits Through Technology and Infrastructure

Strategic OBJECTIVE: Lay the foundation for the national airspace system of the future by achieving prioritized NextGen benefits, integrating new user entrants, and delivering more efficient, streamlined services.

Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
NextGen Advisory Committee Recommendations✦ Achieve 80 percent (18 of the 23) NextGen Priorities Joint Implementation Plan commitments, excluding industry-controlled milestones, within a calendar-quarter of their scheduled dates and within 10 percent of the planned cost.	This is a new measure for FY 2016	95%	92%	80%	91.3%	✓
Major System Investments ✦ Maintain 90 percent of major baselined acquisition programs within 10 percent of their current acquisition cost, schedule, and technical performance baseline as of the end of FY 2018.	100%	95%	95%	90%	90.5%	✓
Domestic Commercial Aircraft Fuel Consumption Ensure fuel burn from domestic commercial aircraft operations do not exceed base year 2005 levels (42.1 Tg).	36.5	37.7	38.2	≤ 42.1	40.6	✓
Noise Exposure Reduce the number of people exposed to significant aircraft noise to less than 302,000 in calendar year 2017.	340,000	343,000	408,000	302,000	454,000	✘
Unmodified Audit Opinion Obtain an unmodified audit opinion with no material weakness on the agency's financial statements.	Unmodified audit opinion w/no material weakness	Unmodified audit opinion w/no material weakness	Unmodified audit opinion w/1 material weakness	Unmodified audit opinion w/no material weakness	Unmodified audit opinion w/no material weakness	✓

✦ This performance measure supports a DOT Agency Priority Goal. ✓ Target met ✘ Target not met

Strategic PRIORITY: Enhance Global Leadership

Strategic OBJECTIVE: Improve safety, air traffic efficiency, and environmental sustainability across the globe through an integrated data-driven approach that shapes global standards, enhances collaboration and harmonization, and better targets FAA resources and efforts.

Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
Enhance Global Leadership Develop data-informed regional and global priorities for inclusion in the FAA International Strategy to inform FAA engagement decision-making.	This is a new measure for FY 2017	This is a new measure for FY 2017	Priorities added to international strategy	Add regional and global priorities to the int'l strategy	Regional and global priorities developed and added	✓

✓ Target met ✘ Target not met

Strategic PRIORITY: Empower and Innovate with the FAA's People

Strategic OBJECTIVE: Prepare FAA's human capital for the future by identifying, recruiting, and training a workforce with the leadership, technical, and functional skills to ensure the United States has the world's safest and most productive aviation sector.

Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
Employee Engagement Index Increase the Agency's Employee Engagement Index score to 70 percent positive.	This is a new measure for FY 2017	This is a new measure for FY 2017	68%	70%	68%	✘

✓ Target met ✘ Target not met

Alignment of FAA Costs and Strategic Priorities

The FAA uses a cost accounting system to track and summarize costs by organizational unit and project. This enables the FAA to evaluate whether its spending is in alignment with the agency's four strategic priorities.

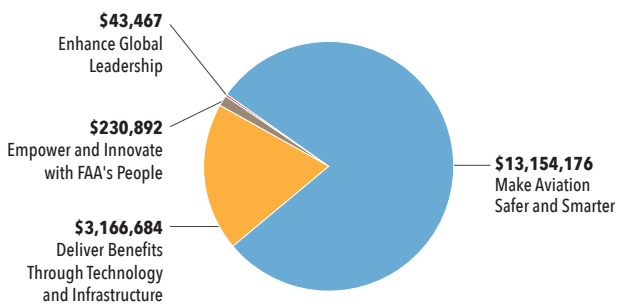
At the beginning of each project, the FAA determines the degree to which the project will contribute to one or more of the strategic priorities. The FAA then allocates actual project costs to the strategic priorities that are supported by the project. Because the FAA also routinely accumulates costs by organizational unit, it is then able to assign total net costs among its five lines of business and the combined staff offices, by strategic priority.

The FAA's total net cost of $16.6 billion was allocated to its four strategic priorities, as described below and as shown in the Net Cost by Strategic Priority Area chart on this page, and in Note 11 of the financial statements on page 101.

Make aviation safer and smarter. A little under $13.2 billion, or approximately 79 percent of total net cost, was devoted to the priority of ensuring the safety of the nation's airspace.

- The Air Traffic Organization (ATO) spent approximately $9.7 billion, largely to maintain the safe separation of aircraft in the air and on the ground.
- The Office of Airports (ARP) provided approximately $1.7 billion for projects to preserve or enhance safety.

NET COST BY STRATEGIC PRIORITY AREA
as of September 30, 2018
(Dollars in Thousands)



- The Aviation Safety Organization (AVS) spent just under $1.5 billion on its programs to regulate and certify aircraft, pilots, and airlines, directly supporting the safety of commercial and general aviation.
- The Security and Hazardous Materials Safety (ASH) spent approximately $132 million on its programs to ensure critical infrastructure protection, emergency operations, contingency planning, and the safe transportation of hazardous materials in air commerce.
- Collectively, the Office of Commercial Space Transportation (AST), other FAA staff offices, and other programs spent about $255 million to further support the agency's safety mission.

Deliver benefits through technology and infrastructure. Almost $3.2 billion, or about 19 percent of total net costs, was assigned to expanding the capacity of the national airspace system, particularly through the pursuit of programs contributing to the NextGen initiative.

- The ATO spent just over $1.5 billion, largely to finance its facilities and equipment projects.
- ARP also provided approximately $1.5 billion to build or reconstruct core airfield infrastructure projects involving runways and taxiways.

Enhance global leadership. As a whole, the FAA committed approximately $43 million to strengthening its international leadership role. These efforts included programs aimed at reducing fatal accidents around the world. Funding for training and technical assistance helped promote safety standards, as well.

Empower and innovate with the FAA's people. Approximately $231 million supported this strategic priority, to which all the lines of business and staff offices contributed. This strategic priority entails preparing the FAA's human capital for the future by identifying, recruiting, and training a workforce with the leadership, technical and functional skills to ensure the United States has the world's safest and most productive aviation sector.

Financial Highlights

Discussion and Analysis of the Financial Statements

The FAA prepares annual financial statements in conformity with accounting principles generally accepted in the United States. The financial statements are subject to an independent audit to ensure that they are free from material misstatement and that they can be used to assess the FAA's performance.

FY 2018 Financial Statements Audit

The Chief Financial Officers Act of 1990 (Public Law 101–576), as amended by the Government Management Reform Act of 1994, requires that financial statements be prepared by certain agencies and commercial-like activities of the federal government and that the statements be audited in accordance with Generally Accepted Government Auditing Standards. The FAA is required to prepare its own financial statements under OMB Bulletin No. 19-01, *Audit Requirements for Federal Financial Statements*. DOT's Office of Inspector General (OIG) is statutorily responsible for the manner in which the audit of the FAA's financial statements is conducted. The OIG selected KPMG LLP, an independent certified public accounting firm, to audit the FAA's FY 2018 financial statements.

KPMG LLP has rendered an unmodified audit opinion on the FAA's FY 2018 financial statements.

Understanding the Financial Statements

The FAA's Consolidated Balance Sheets, Statements of Net Cost, Changes in Net Position, and Combined Statements of Budgetary Resources, have been prepared to report the financial position and results of operations of FAA, pursuant to the requirements of the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994. The following section provides a brief description of (a) the nature of each financial statement and its relevance to FAA, (b) significant fluctuations from FY 2017 to FY 2018, and (c) certain significant balances, where necessary, to help clarify their link to the FAA's operations.

Balance Sheet

The balance sheet presents the amounts available for use by FAA (assets) against the amounts owed (liabilities) and amounts that comprise the difference (net position).

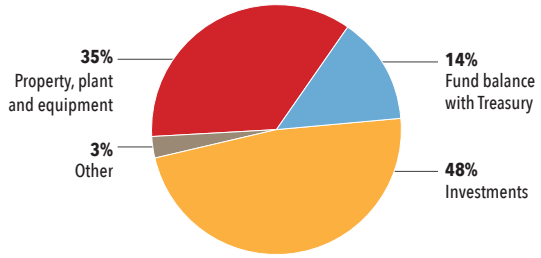
Assets

Total assets were $34.6 billion as of September 30, 2018. The FAA's assets are the resources available to pay liabilities or satisfy future service needs. The *Composition of Assets* chart depicts major categories of assets as a percentage of total assets.

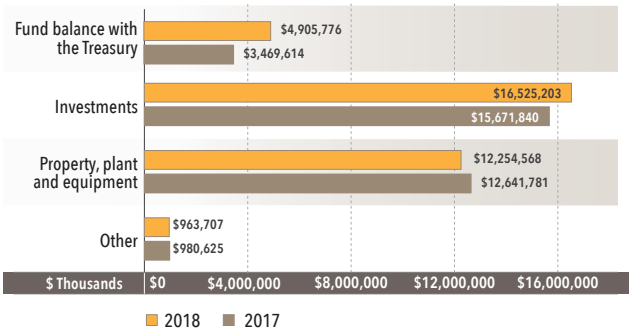
The *Assets Comparison* chart presents comparisons of major asset balances as of September 30, 2017 and 2018.

Fund balance with Treasury represents 14 percent of the FAA's current period assets and consists of funding available through the Department of Treasury accounts from which the FAA is authorized to make expenditures to pay liabilities. It also includes passenger ticket and other excise taxes deposited to the Airport and Airway Trust Fund (AATF), but not yet invested. Fund balance with Treasury ended the year at $4.9 billion compared to $3.5 billion in 2017.

COMPOSITION OF ASSETS
as of September 30, 2018



ASSETS COMPARISON
(Dollars in Thousands)

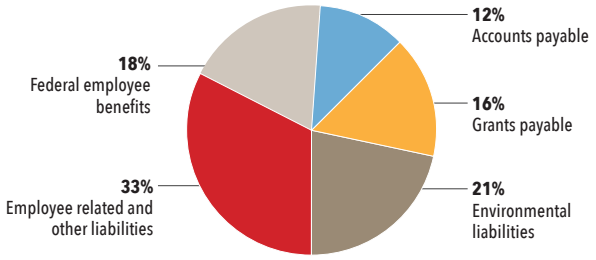


At $16.5 billion, *Investments* represent 48 percent of the FAA's current period assets, and are derived primarily from the collection of passenger ticket and other excise taxes deposited semi-monthly to the AATF.

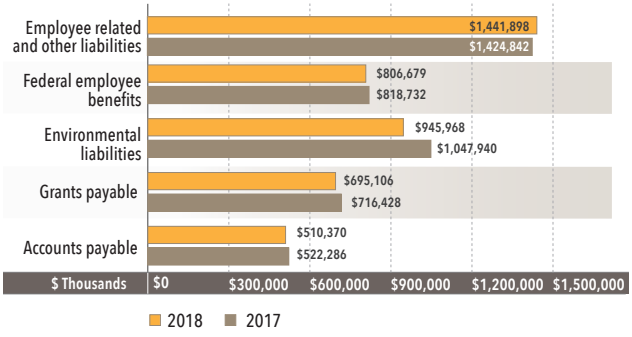
The deposited taxes are invested within several business days, thus transitioning the asset classification from fund balance with Treasury to investments. The investment balances also include the Aviation Insurance Program investments. Investments are redeemed, as needed, to finance the FAA's daily operations to the extent authorized by Congress, and to pay potential insurance claims. Investment balances increased approximately $853 million on a comparative basis.

At $12.3 billion, *General property, plant, and equipment, net* (PP&E) represents 35 percent of the FAA's assets as of September 30, 2018, and primarily comprises construction in progress related to the development of the national airspace system assets, and capitalized real and personal property. There was a decrease of $387 million in the total composition of PP&E, as retirements, disposals, and depreciation exceeded purchases of equipment and additions to construction in progress through the normal course of business.

COMPOSITION OF LIABILITIES
as of September 30, 2018



LIABILITIES COMPARISON
(Dollars in Thousands)



Liabilities

As of September 30, 2018, the FAA reported liabilities of $4.4 billion. Liabilities are probable and measurable future outflows of resources arising from past transactions or events. The *Composition of Liabilities* chart depicts the FAA's major categories of liabilities as a percentage of total liabilities.

The *Liabilities Comparison* chart presents comparisons of major liability balances between September 30, 2017 and September 30, 2018. Below is a discussion of the major categories.

At $1.4 billion, *Employee related and other liabilities* represent 33 percent of the FAA's total liabilities. These liabilities increased slightly by $17.0 million as of September 30, 2018 and are comprised mainly of $380.2 million in advances received, $164.4 million in Federal Employee's Compensation Act payable, $308.9 million in accrued payroll and benefits, $448.5 million in accrued leave and benefits, $24.5 million in legal claims liability and $63.9 million in capital lease liability.

At $806.7 million, *Federal employee benefits* represent 18 percent of the FAA's current year liabilities, and consist of the FAA's expected liability for death, disability, and medical costs for approved workers' compensation cases, plus a component for incurred but not reported claims. The Department of Labor calculates the liability for the DOT, and the DOT attributes a proportionate amount to the FAA based upon actual workers' compensation payments to FAA employees over the preceding four years. This liability is updated on an annual basis at year end.

Environmental liabilities represent 21 percent of the FAA's total liabilities and decreased to $946 million as of September 30, 2018 compared with $1.048 billion a year earlier. *Environmental liabilities* include a component for remediation of known contaminated sites that decreased by $58.0 million on a comparative basis. The other component of environmental liabilities includes the estimated costs for future facility decommissioning. This component's costs decreased by a total of $43.9 million.

The FAA's *grants payable* are estimated amounts incurred, but not yet claimed by Airport Improvement Program grant recipients and represent 16 percent of liabilities. *Grants payable* decreased by $21.3 million. *Accounts payable* represents 12 percent of liabilities and decreased by $11.9 million. *Accounts payable* are the amounts the FAA owes to other entities for unpaid goods and services received.

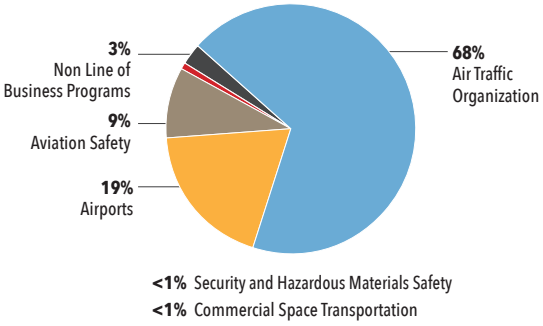
Statement of Net Cost

The Statement of Net Cost presents the cost of operating the FAA's programs. The gross expense, less any earned revenue, represents the net cost of specific program operations. The FAA has used its cost accounting system to prepare the annual Statement of Net Cost since FY 1999. In contrast to the budgetary basis of accounting applicable to the Statement of Budgetary Resources discussed on page 26, balances reported on the Statement of Net Cost are reported on an accrual accounting basis. Under the accrual method, revenues are recognized when earned, and expenses are recognized when a liability is incurred.

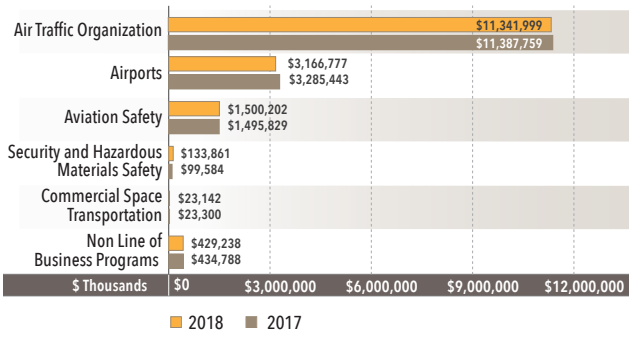
For the fiscal years ended September 30, 2018 and September 30, 2017, FAA's net costs were $16.6 billion and $16.7 billion, respectively. The *Composition of Net Costs* chart illustrates the distribution of costs among the FAA's lines of business.

The *Net Cost Comparison* chart compares net costs for the fiscal years ended September 30, 2017 and September 30, 2018.

COMPOSITION OF NET COST
for the fiscal year ended September 30, 2018



NET COST COMPARISON
(Dollars in Thousands)



With a net cost of $11.3 billion, the *Air Traffic Organization* is the FAA's largest line of business, comprising 68 percent of total net costs. The Air Traffic Organization's net costs decreased slightly by $45.8 million, on a comparative basis, primarily from decreases in costs for equipment and contractor services offset by increases in costs for labor and benefits, materials and supplies and other cost allocations.

The *Airports* line of business net cost decreased by $118.7 million to $3.2 billion for the fiscal year ended September 30, 2018, and represents 19 percent of the FAA's total net costs. *Airports* net costs are comprised primarily of Stewardship Investments from the Airport Improvement Program. The Stewardship Investments are made through grants to airport authorities, local and state governments, and metropolitan planning authorities for airport facilities throughout the United States and its territories.

At $1.5 billion, the net cost for *Aviation Safety* represents 9 percent of the FAA's total net costs, while *Non-Line of Business Programs* comprise 3 percent of total net costs. Net costs of *Security and Hazardous Material Safety and Commercial Space Transportation* each represent less than 1 percent of total net costs.

Statement of Changes in Net Position

The *Statement of Changes in Net Position* presents those accounting items that caused the net position section of the balance sheet to change from the beginning to the end of the reporting period. Various financing sources increase net position. These financing sources include appropriations received and non-exchange revenue, such as excise taxes and imputed financing from costs paid on the FAA's behalf by other federal agencies. The agency's net cost of operations and net transfers to other federal agencies serve to reduce net position.

The FAA's *Cumulative Results of Operations* for the fiscal year ended September 30, 2018, increased by $1.9 billion primarily due to a combination of financing sources of $2.2 billion from appropriations used, non-exchange revenue of $16.1 billion and imputed financing of $400.4 million, offset by transfers out of $295.8 million and net costs of $16.6 billion. Unexpended appropriations increased by $120.1 million.

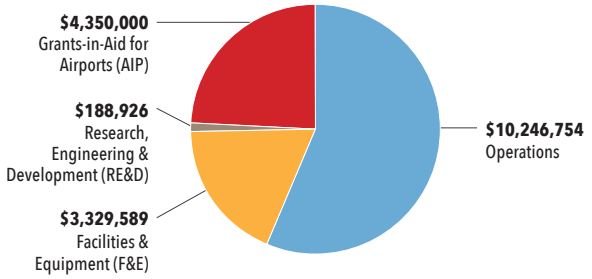
Statement of Budgetary Resources

This statement provides information on the budgetary resources available to the FAA for the fiscal years ended September 30, 2018 and September 30, 2017, and the status of those budgetary resources.

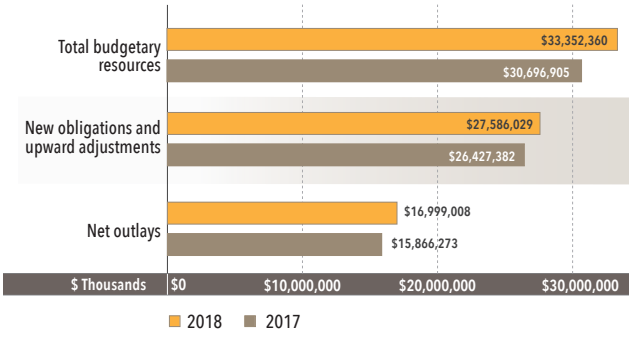
The FAA's *Total budgetary resources* consist of new budget authority and unobligated balances of budget authority provided in previous years. *New obligations and upward adjustments* result from an order placed, contract awarded, service received, or similar transaction, which will require payments during the same or a future period. *Net outlays* reflect the actual cash disbursed by the Treasury for the FAA obligations net of offsetting collections.

Total budgetary resources were $33.4 billion, of which $28.8 billion comes from new budget authority, for the fiscal year ended September 30, 2018 and $30.7 billion, of which $26.4 billion comes from new budget authority, for the fiscal year ended September 30, 2017. *New obligations and upward adjustments* increased $1.2 billion to $27.6 billion. *Net outlays* increased by $1.1 billion to $17.0 billion.

FAA ENACTED BUDGET - FY 2018
(Dollars in Thousands)



STATEMENT OF BUDGETARY RESOURCES COMPARISON
(Dollars in Thousands)



The *Unapportioned* status of budgetary resources represents resources that are not available until the FAA has the authority to spend them under current law and they are apportioned by the Office of Management and Budget. For the fiscal year ended September 30, 2018, the *Unapportioned* balance was $2.2 billion showing a slight increase of $48.7 million over the September 30, 2017 ending balance.

Stewardship Investments

Stewardship investments are substantial investments made by the FAA for the benefit of the nation, but do not result in physical ownership of assets by the FAA. When incurred, these amounts are treated as expenses in the Consolidated Statements of Net Cost. Our Required Supplementary Stewardship Information (RSSI) includes disclosure of stewardship investments over the last five years for the Airport Improvement Program grants by state/territory and can be seen on page 113. The FAA recognizes the grants expense as the recipient accomplishes the improvement work.

RSSI also includes the stewardship investments over the last five years for the FAA's research and development expenses. These expenses decreased in FY 2018 by $38.3 million. The FAA conducts ongoing research as part of its mission to provide the safest, most efficient aerospace system in the world. A discussion of FAA's research priorities, the five year chart, and examples of some of this year's ongoing research activities can be seen on page 115.

Limitations of the Financial Statements

The principal financial statements are prepared to report the financial position and results of operations of the reporting entity, pursuant to the requirements of 31 U.S.C. 3515(b). The statements are prepared from the books and records of the entity in accordance with federal generally accepted accounting principles and the formats prescribed by OMB. Reports used to monitor and control budgetary resources are prepared from the same books and records. The financial statements should be read with the realization that they are for a component of the U.S. Government.

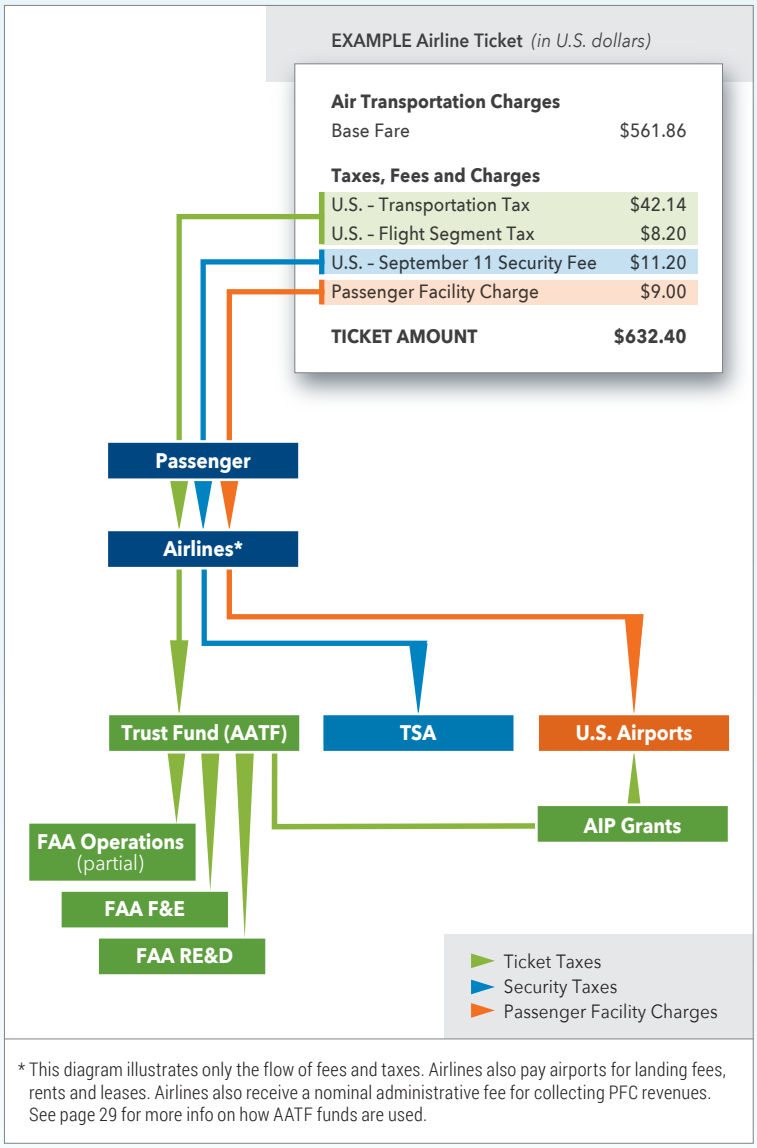
WHAT'S IN THE PRICE OF AN AIRLINE TICKET?

Many passengers are unaware that when they purchase an airline ticket, they are paying for more than a seat on a flight. The diagram shows the breakdown of an example ticket price for a domestic flight. Although the total ticket price is collected by the airlines, the airlines must forward a portion of those funds to others, for various purposes.

Taxes collected as part of the purchase of a domestic passenger ticket are **shown in green: a U.S. transportation tax and a flight segment tax**. These taxes, along with other excise taxes, are deposited into the **Airport and Airway Trust Fund (AATF)** which is a dedicated source of funding for the nation's aviation system. To the extent made available by law, FAA uses some of these funds to finance a portion of its **Operations**. The AATF is the primary source of funding for **FAA's Airport Improvement Program grants (AIP)**; **Facilities and Equipment (F&E)**; and **Research, Engineering, and Development (RE&D)** activities. These activities are explained further on pages 26–29, and further information on AIP grants is also provided on page 8 and 28.

Another part of the cost of an airline ticket is the passenger security service fee, also known as the **September 11 Security Fee, shown in blue**. This fee is collected by airlines from passengers at the time a ticket is purchased. Airlines then remit the fees to the Transportation Security Administration (TSA).

Passenger Facility Charges (PFC) are shown in orange and are an important source of capital for U.S. airport infrastructure. PFCs are collected by airlines at the time a ticket is purchased and the funds that are raised are transferred directly to the appropriate airports. It is up to the individual airport to decide whether, and how it will use PFC funds subject only to airline consultation and FAA approval of the application. Airports use these fees to fund FAA approved projects that enhance safety, security, or capacity; reduce noise; or increase carrier competition. PFC funds may also be used as the matching share for AIP grants. In addition, PFC funds may be used to pay for debt service on bonds used to raise capital for larger improvement projects allowing for a significant degree of leverage for PFC funds. Since 1992, FAA has approved over $100 billion of PFC projects.



* This diagram illustrates only the flow of fees and taxes. Airlines also pay airports for landing fees, rents and leases. Airlines also receive a nominal administrative fee for collecting PFC revenues. See page 29 for more info on how AATF funds are used.

Budgetary Integrity: FAA Resources and How They Are Used

The FAA receives budget authority to obligate and expend funds from both the Department of the Treasury's General Fund and the Airport and Airway Trust Fund (AATF). Created by the Airport and Airway Revenue Act of 1970, the AATF is supported by excise taxes and earned interest. It pays for investments in the airport and airway system, and a majority of the FAA's operating costs. In FY 2018, the AATF paid for approximately 85 percent of our enacted budget authority per the Consolidated Appropriations Act, 2018 (Public Law 115-141) and the Further Additional Appropriations for Disaster Relief Requirements Act, 2018 (Public Law 115-123).

Aviation excise taxes, which include taxes on domestic passenger tickets, freight waybills, general and commercial aviation fuel, and international departures and arrivals, are deposited into the AATF. The Department of the Treasury, which administers the AATF, invests those funds in government securities. Interest earned is also deposited into the AATF. Balances are withdrawn from the AATF as needed to meet cash disbursement needs.

The chart on page 26, FAA Enacted Budget–FY 2018, summarizes the budget enacted by Congress for the FAA. The FY 2018 enacted budget of $18.1 billion was an increase of $1.7 billion (10.4 percent) over the FY 2017 enacted level. The FAA requests and receives its funding in four primary accounts:

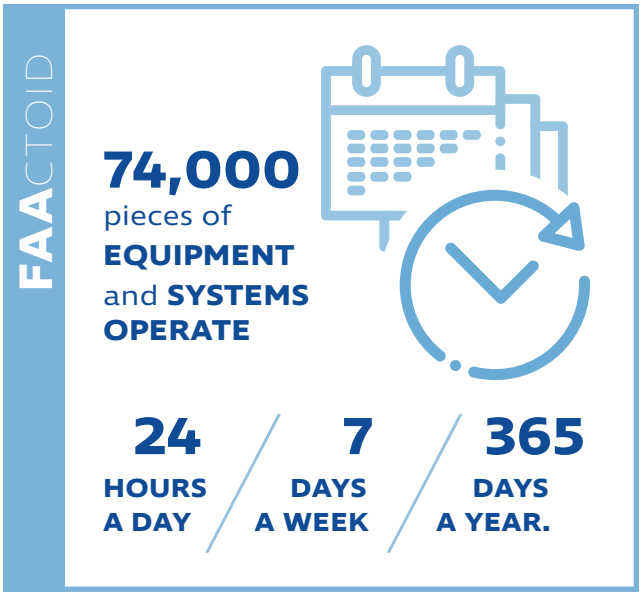
- **Operations**
- **Grants-in-Aid for Airports (AIP)**
- **Facilities and Equipment (F&E)**
- **Research, Engineering, and Development (RE&D)**

The largest, Operations, is supported by both the general fund and the AATF. In FY 2018, the AATF supported 87 percent of the funding for the Operations account. In most years, the AATF supports 100 percent of the funding for the three other accounts – AIP, F&E, and RE&D. In FY 2018, however, the AIP program received funding from both the AATF and the general fund. The AATF provided 77 percent of the total funding for AIP.

Operations. This account finances operating costs, maintenance, communications, and logistical support for the air traffic control and air navigation systems. It also funds the salaries and costs associated with carrying out safety inspection and regulatory responsibilities. In addition, the account covers administrative and managerial costs for international, medical, engineering, and development programs, as well as for policy oversight and overall management functions. The FY 2018 Operations appropriation was $10.25 billion, approximately 2.2 percent greater than FY 2017. This funding level includes $35 million provided specifically for expenses related to hurricanes that occurred during FY 2017.

AIP. The FAA awards grants for airport planning and development to maintain a safe and efficient nationwide system of public airports. These grants fund approximately one-third of all capital development at the nation's public airports. The FAA issues grants to maintain and enhance airport safety, preserve existing infrastructure, and expand capacity and efficiency throughout the system. The program also supports noise compatibility and planning, the military airport program, reliever airports, and airport program administration. FY 2018 funding for AIP from the AATF was $3.35 billion, unchanged from the FY 2017 level. In addition, AIP received $1 billion from the general fund in FY 2018 for discretionary grants.

F&E. This account funds the capital improvement projects necessary to establish, replace, relocate, or improve air navigation facilities and equipment and aviation safety systems across the national airspace system, particularly through programs supporting NextGen. F&E was funded at $3.33 billion in FY 2018, an increase of about 16.6 percent from the FY 2017 level. This funding level includes $79.6 million provided specifically for expenses related to hurricanes that occurred during calendar year 2017.



RE&D. This account funds research, engineering, and development programs to plan, conduct, and integrate domestic and international research efforts, and develop products and services that will ensure a safe, efficient, and environmentally-compatible global air transportation system. The FY 2018 appropriation for RE&D was $188.9 million, an increase of about 7 percent from the FY 2017 level.

The FAA must use its funds in the way they are appropriated. On its own, the FAA does not possess the legal authority to move funds between these accounts. A transfer between accounts requires an act of Congress.

Other Budgetary Resources. In addition to the primary funding resources appropriated by Congress, the FAA also receives budgetary resources from revolving funds and user fees. Revolving funds are accounts established by law to finance a continuing cycle of operations with receipts derived from such operations, usually available in their entirety for use by the fund without further action by the U.S. Congress. User fees are charges for government goods or services above and beyond what is normally available to the public. The "other funds" described below are not part of the enacted budget, but do provide another source of budgetary resources.

FAA RESOURCES AND HOW THEY ARE USED

This chart aligns with the presentation of the FAA's audited Consolidated Statements of Net Cost on page 83 and net cost by program and strategic priority in Note 11 on page 101. Net costs are presented among FAA's five lines of business and collectively for its non-line of business programs. General and administrative costs from the FAA's staff offices are allocated to the lines of business they support, on a reasonable and consistent basis. For more information, also see discussion of funding sources on this page and the FAA's lines of business and staff offices on pages 8–9.

In addition to the primary funding types listed above, the FAA also receives budgetary resources from revolving funds and user fees that are not graphically illustrated. For additional information on these funding sources, refer to page 29.

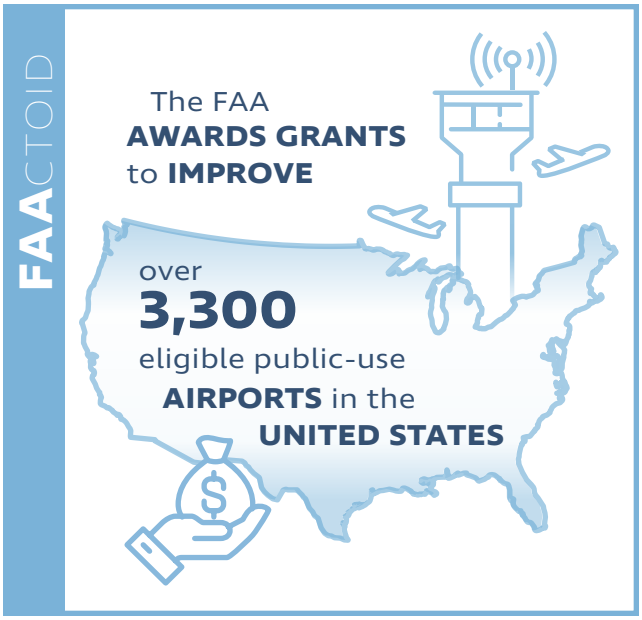
Historically, AIP is funded solely from the AATF. In FY 2018, Congress appropriated a supplemental $1 billion from the General Fund, to be obligated for airport grants over a 3-year period from FY 2018–2020. FAA awarded $205 million in grants during FY 2018, with the remainder continuing to be available during FY 2019–2020.

- **Aviation Insurance Revolving Fund**. The Aviation Insurance Revolving Fund provides non-premium war risk insurance, which includes hull loss and passenger, crew, and third-party liability coverage, for certain U.S. Government contracted air carrier operations, as authorized by 49 USC 44305. This non-premium insurance authority expires on December 31, 2019; pursuant to 49 USC 44310(b).
- **Administrative Services Franchise Fund (Franchise Fund)**. The Franchise Fund is a revolving fund designed to create competition within the public sector in the performance of a wide variety of support services. These services include accounting, travel, multi-media, information technology, logistics and material management, aircraft maintenance, international training, and management training.
- **Aviation Overflight User Fees**. Aviation Overflight User Fees is a "special" fund whose receipts come from charges to operators of aircraft that fly in U.S. controlled airspace, but neither take off nor land in the United States.

Management Control Highlights

Financial Management Integrity: Controls, Compliance and Challenges

On November 9, 2018, the FAA Administrator reported to the Secretary of DOT an unmodified statement of assurance under the Federal Managers' Financial Integrity Act (FMFIA). Every year, program managers in the FAA's lines of business and staff offices assess the vulnerability of their program. Based on these assessments, reviews are conducted to determine their compliance with sections 2 and 4 of FMFIA. Section 2 requires management controls to be in place, and Section 4 requires financial systems to conform to government-wide standards. The head of each line of business or staff office identifies in writing any potential material internal control weakness or system nonconformance to the Administrator. Identified weaknesses deemed material are consolidated in a Statement of Assurance signed by the Administrator and sent to the DOT Secretary. Our response becomes a part of the DOT Statement of Assurance sent to the President. In addition to FMFIA, we report our compliance with the Federal Financial Management Improvement Act (FFMIA). FFMIA requires an assessment of adherence to financial management system requirements, accounting standards, and U.S. Standard General Ledger transaction level reporting. For FY 2018, we are reporting overall substantial compliance.



Payment Integrity

The Improper Payments Information Act of 2002 (IPIA), as amended by the Improper Payments Elimination and Recovery Act (IPERA) of 2010 and the Improper Payments Elimination and Recovery Improvement Act of 2012 (IPERIA), requires federal agencies to annually report to the President and the Congress information on improper payments. For purposes of this reporting, the acronym "IPIA" refers to "IPIA, as amended by IPERA and IPERIA".

IPIA spells out a systematic approach by which the federal government must address a difficult and often complex problem. The federal government loses billions of dollars a year on improper payments. OMB Circular A-123, Appendix C (October 20, 2014), provides government-wide guidance for dealing with these losses.

The purpose of these regulations and guidance is to improve agency efforts to reduce and recover improper payments. Specifically, IPIA requires agencies to identify and estimate their improper payments, conduct payment recovery audits, reuse recovered improper payments, and report compliance actions.

In simple terms, an improper payment based on IPIA is any payment that should not have been made at all, that was made in the incorrect amount (overpayments or underpayments), or that was made to an ineligible recipient, or for an ineligible good or service. Additionally, payments made without complete supporting documentation and duplicate payments are considered improper payments.

Based on IPIA, agencies are required to review all programs and financial activities in order to identify those that are most susceptible to improper payments. This risk assessment allows agencies to identify areas that have the potential for "significant" improper payments.

The FAA's FY 2018 IPIA review did not identify any programs or activities with "significant erroneous payments," as determined in accordance with the criteria of the Office of Management and Budget, which identifies erroneous payments as those payments exceeding both $10 million and 1.5 percent of program payments, or exceeding $100 million.

Management Assurances

Federal Managers' Financial Integrity Act Assurance Statement Fiscal Year 2018

The FAA is responsible for managing risks and maintaining effective internal control and financial management systems that meet the objectives of Section 2 and Section 4 of the Federal Managers' Financial Integrity Act. This includes conducting assessments to determine the effectiveness of internal control and conformance with financial system requirements. The FAA conducted its assessments in accordance with OMB Circular No. A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*, Appendices A and D.

The FAA's assessments considered the effectiveness of internal control over operations, financial reporting which also includes safeguarding of assets, and compliance with applicable laws and regulations. The objectives are to ensure:

- Effectiveness and efficiency of operations
- Reliability of reporting for internal and external use
- Compliance with applicable laws and regulations

Based on the results of this assessment, the FAA can provide reasonable assurance that its internal control over operations, financial reporting, and compliance were operating effectively as of September 30, 2018. No material weaknesses were found in the design or operation of internal control over financial reporting.

The FAA also assessed its financial management systems' conformance with financial system requirements, in accordance with the requirements of OMB Circular A-123 Appendix D. Based on this assessment, the FAA can provide reasonable assurance that its financial management systems conform to these requirements and no material non-conformances or instances of noncompliance were identified.

DANIEL K. ELWELL
Acting Administrator
November 9, 2018

Financial Management Systems Strategy and Actions

Financial Systems Strategy

The FAA's financial systems strategy is based on a framework called the Federal Enterprise Architecture, which is recognized across the federal government as the best practice for aligning business and technology resources to achieve strategic outcomes. The FAA is working to achieve this in all areas of our financial systems and is making it part of our organizational design and performance improvement. Our financial management systems strategy can be divided into five categories: Business, Applications, Data, Information, and Services. A summary of each is provided below:

Business. Initiates more centralized management of financial information as a new business model.

Applications. Decreases the number of financial management applications being used by the agency via a financial systems modernization program.

Data. Implements a financial data management roadmap and stewardship council to govern the use and sharing of FAA financial data as a common asset.

Information. Builds an FAA-wide financial data "warehouse" to increase the consistency of reporting while maintaining each organization's ability to meet individual core mission business reporting requirements.

Services. Defines and delivers shared operational and infrastructure services for the FAA's multiple financial systems.

Systems Critical to Financial Management and Actions

The FAA is working with DOT to consolidate and modernize its financial management systems and streamline processes and financial reports. Maintaining fewer systems will enable the FAA to operate more efficiently by having fewer points of data entry, fewer systems to reconcile with the official sources of the data, and fewer systems on which to train employees. Below is a summary of the systems critical to the FAA's financial management and the actions and improvements that are recently completed, underway, or planned for each.

Accounting. Delphi is the DOT's comprehensive financial management system. The FAA uses Delphi to record financial transactions and account balances. In FY 2018, the FAA, in cooperation with DOT, modernized its financial reporting, moving from web-based financial reports to an upgraded financial reporting platform - ORACLE Business Intelligence Enterprise Edition. This platform provides an interactive dashboard, standard reports, drilldown capability, visualization of data, and both analytical and operational reports. Work was completed on a "data warehouse" which aggregates financial data from multiple financial systems into a single reporting environment. The data warehouse provides more efficient and timely access to financial data that will be more consistent and reliable. The FAA is improving its application used to track and account for the work performed for other federal agencies under reimbursable agreements. The revised system will standardize the reimbursable process across all financial projects with enhanced visibility and control over core financial operations. We expect the revised version of the application to be operational early next fiscal year.

Acquisition. PRISM is an internet-based acquisition system that is integrated with Delphi's financial functions. PRISM provides contract award information (e.g., vendor and product/service) and communicates accounting information to Delphi. In FY 2018, in order to meet the requirements of the Digital Accountability and Transparency Act, PRISM had to be upgraded to accommodate a change in all contract award and modification numbers and also maintain the legacy numbers. These changes allow for increased standardization and more transparency in contract reporting. The FAA also implemented electronic invoicing for the processing of Airport Improvement Program grant payment requests. This system reduces paper invoices and eliminates duplicate data entry and manual requests for payments. The FAA continues to update PRISM and Delphi to expand electronic invoicing beyond grant payments to all vendors doing business with the FAA.

Travel. In FY 2018, the FAA made several enhancements to its online travel system, E2 Solutions. The enhancements included upgrading the ability to search for documents, adding a calendar widget to meet website accessibility standards, and adding additional validation edits to ensure that accounting codes are proper.

The Mike Monroney Aeronautical Center (MMAC)

MMAC in Oklahoma City, Oklahoma, is home to over 6000 FAA employees and contractors. The MMAC provides technical training, logistics support, and financial services to over 40 federal agencies in addition to the FAA. MMAC's shared services business model is driving efficiency and cost reductions by consolidating the delivery of common administrative services to multiple agencies by one provider. Specifically, the MMAC's workforce delivers: technical training through its Academy; centralized supply chain management and field site services such as maintenance, repair, overhaul, and distribution through the FAA Logistics Center; financial management shared services across government through the Enterprise Services Center (MMAC processes millions of financial transactions annually); aviation medical and human factors research through the Civil Aerospace Medical Institute; and registration of the nation's civil aircraft, including Unmanned Aircraft Systems, and all official airman records through MMAC's Registry. The MMAC complex is comprised of 136 buildings providing 3.3 million square feet of industrial, administrative, and laboratory space.

MMAC notable accomplishments in 2018 include:

Pollution Prevention. In 2018 MMAC:

- Exceeded the annual reduction goal of 7.5 percent for energy consumption
- Exceeded the water conservation goal by over 3 percent
- Advanced waste and pollution prevention by diverting over 75 percent of solid waste from landfills
- Increased the percentage of electricity consumed from renewable sources from 14.2 percent in 2017 to 24 percent in 2018

Technical Training. The MMAC's Academy accomplishments in 2018 include:

- Successfully trained 65,000 students through a variety of courses via in-residence, distance learning and virtual training
- Converted 13 in-resident courses to virtual training which reduced travel cost for approximately 400 students
- Supported FAA's Northeast Corridor Project by developing and delivering the Ten Eleven Twelve Radar Assessment course establishing an additional hiring path for new Air Traffic Controllers (assisting the agency in reducing staffing shortages and benefits higher complexity air traffic control facilities)
- Expanded FAA's global influence by delivering courses to over 375 students from 36 countries

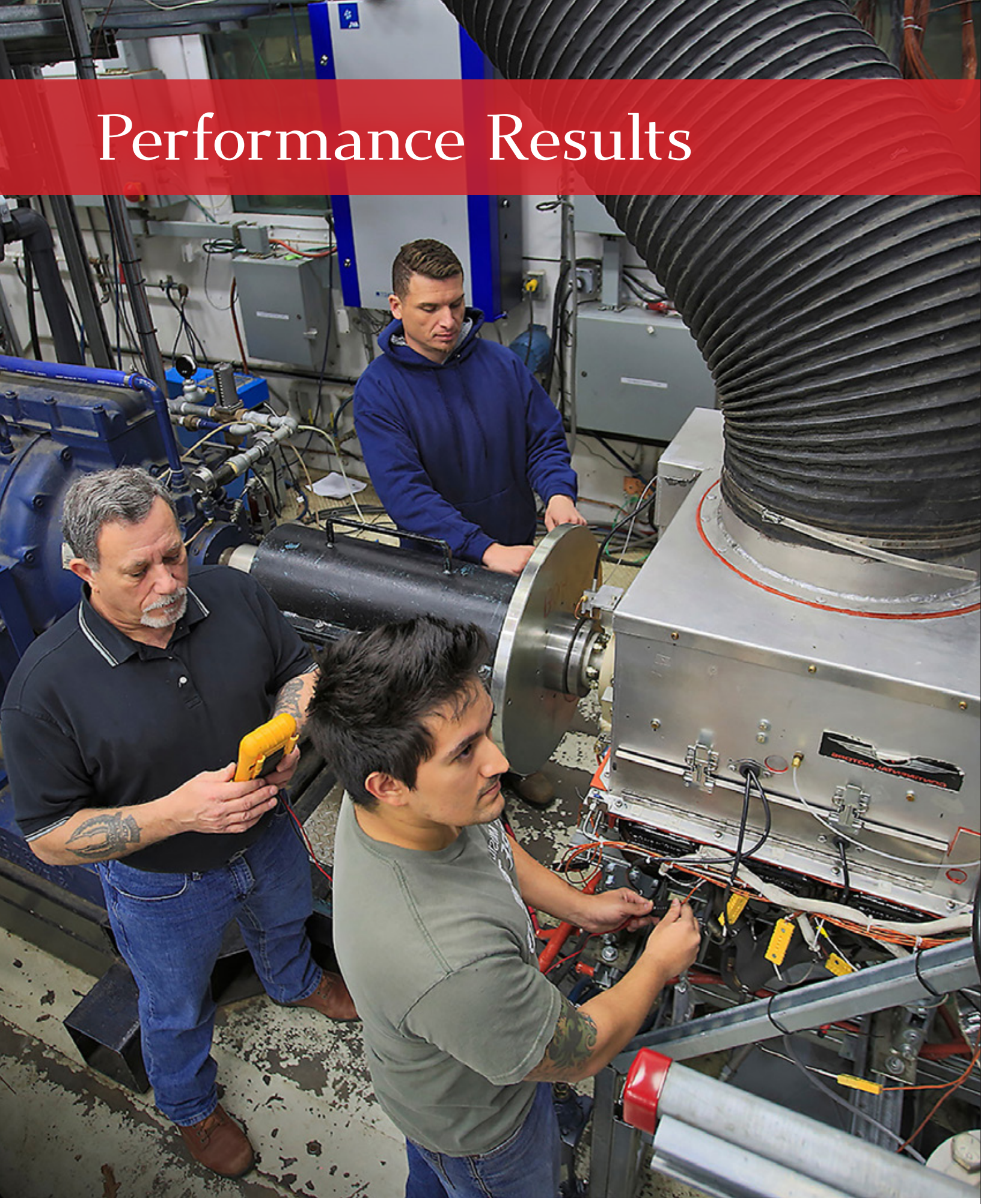
Maintenance and Repairs. The FAA Logistics Center's 2018 accomplishments include:

- Conducted over 2,350 site restorations
- Repaired and tested over 38,000 parts
- Distributed over 730,000 parts to support field maintenance across the globe

Financial and Technology Services. The MMAC Enterprise Services Center 2018 accomplishments include:

- Completed grant payments for DOT of over $50 billion, achieving 98 percent on-time payments
- Processed approximately 40,000 receipts and 48,000 invoices across DOT
- Processed 213,000 travel vouchers across DOT with 99.73 percent of travel payments made on-time
- Completed a technical upgrade to Delphi, the Department of Transportation's automated financial system (ensuring system supportability thru the mid-2020s)
- Supported the federal government's initiative to standardize and utilize common applications across all federal agencies (i.e., expanded the use of the automated Procurement Request Information System Management contracting tool from 12 to 15 major federal organizations)

Performance Results



Performance Measures Overview

In this section, the FAA discusses its achievements in addressing our 15 performance measures. The FAA organizes its measures by the following strategic priorities:

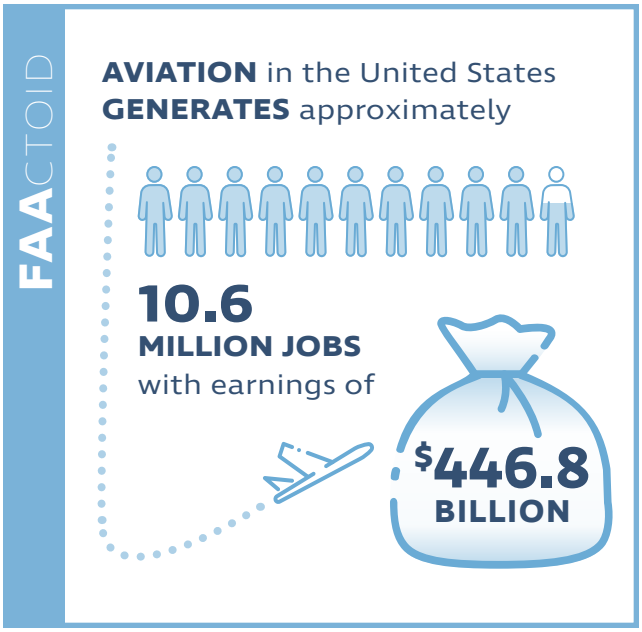
- **Make Aviation Safer and Smarter** (page 36)
- **Deliver Benefits through Technology and Infrastructure** (page 48)
- **Enhance Global Leadership** (page 57)
- **Empower and Innovate with the FAA's People** (page 60)

In the pages that follow, the FAA provides the FY 2018 performance targets; a discussion of our FY 2018 performance; and, when available, up to five years of historical trend data. We have also prepared a graph of performance measures when appropriate.

In FY 2018, the FAA achieved its target for 13 out of the agency's 15 performance measures. The FAA has noted the measures for which the data provided are preliminary.

Although in some cases the FAA achieved a result this year that was significantly better than the target, the FAA did not set a new fiscal year target to reflect the prior year's result. Annual performance is subject to greater variability than long-term performance. Over time, short-term trends tend to balance out and in doing so provide a more accurate picture of the agency's long-term performance. Moreover, some annual targets use data acquired over a multi-year period. The targets used in this section have been set to measure the FAA's performance in meeting long-term goals.

In previous years, the FAA has reported on performance targets for the upcoming fiscal year. The FAA is currently developing a new strategic plan that will include a different set of performance measures and a new organization for those measures. Performance targets for FY 2019 are not included in this report while the FAA continues its work on the new strategic plan.



The Performance Results section includes a discussion on page 62 of the ways in which our performance data are verified and the completeness and reliability of our performance data.

Left: Researchers performing final test cell instrumentation checks in preparation for testing at the William J. Hughes Technical Center (Propulsion and Airpower Engineering and Research Lab).

Strategic Priority: Make Aviation Safer and Smarter

Strategic OBJECTIVE:	Build on safety management principles to proactively address emerging safety risks by using consistent, data-informed approaches to make smarter, system-level, risk-based decisions.

Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
Commercial Air Carrier Fatality Rate ✦ In FY 2018, the commercial air carrier fatality rate will not exceed 6.2 fatalities per 100 million people on board.	0.1	0.6	0.3[1]	6.2	0.1[2]	✓
Runway Incursions Rate ✦ Reduce Category A & B (most serious) runway incursions to a rate of no more than 0.395 per million operations.	0.302	0.380	0.159	0.395	0.132[3]	✓
System Risk Event Rate Limit the rate of the most serious losses of standard separation to 10 or fewer for every thousand losses of standard separation within the national airspace system.	2.62	2.66	2.24	10	2.97[3]	✓
IT Risk Management and Information Systems Security Address 80 percent of high value risks within 30 days. Continue oversight by the Cybersecurity Steering Committee to assure consistent risk acceptance decisions.	100%	100%	100%	80%	100%	✓
General Aviation Fatal Accident Rate ✦ Reduce the general aviation fatal accident rate to no more than 1.00 fatal accidents per 100,000 flight hours.	0.99	0.89	0.84[1]	1.00	0.89[2]	✓
Commercial Space Launch Accidents No fatalities, serious injuries, or significant property damage to the uninvolved public during licensed or permitted space launch and reentry activities.	0	0	0	0	0	✓
Unmanned Aircraft Systems (UAS) - Authorizations ✦ Reduce the average time for processing Part 107 airspace authorizations by at least 15 percent to an average of 72 days by September 30, 2018.	This is a new measure for FY 2018	This is a new measure for FY 2018	This is a new measure for FY 2018	72	50	✓
Unmanned Aircraft Systems (UAS) - Waivers ✦ Reduce the average time for processing Part 107 operational waivers to 50 days by September 30, 2018.	This is a new measure for FY 2018	This is a new measure for FY 2018	This is a new measure for FY 2018	50	17	✓

✦ This performance measure supports a DOT Agency Priority Goal. ✓ Target met ✘ Target not met

1 Preliminary estimate; National Transportation Safety Board will confirm in March 2019. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

2 Preliminary estimate; National Transportation Safety Board will confirm in March 2020. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

3 Preliminary estimate until the final result becomes available in January 2019. We do not expect any change in the final result to be significant enough to alter our year-end status of achieving the target.

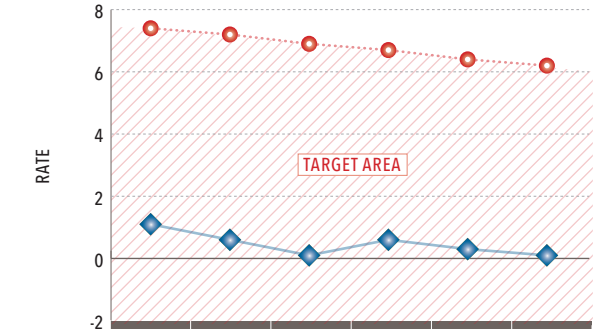
Commercial Air Carrier Fatality Rate

Reduce commercial air carrier fatalities per 100 million persons on board by 50 percent over an 18-year period (2008–2025). No more than 6.2 in 2018.	
FY 2018 Target	No more than 6.2 fatalities per 100 million persons on board.
FY 2018 Result	**0.1** *(Preliminary estimate until the final result can be confirmed by the National Transportation Safety Board (NTSB) in March 2020)*
Public Benefit	As fatal air carrier accidents have declined in terms of average fatalities per accident, this metric reflects FAA's commitment to making air travel even safer.

Commercial aviation includes both scheduled and non-scheduled flights of U.S. passenger and cargo carriers. This form of transportation is one of the safest, and the FAA strives every year to maintain this distinction. Not all fatalities captured in the FAA's performance measures are associated with large commercial air carriers. For example, recent fatalities have almost all been attributed to small air carriers. However, a fatal accident involving many passengers on a large commercial aircraft would affect whether the FAA meets the target.

In FY 2018, with a result of 0.1 fatalities per 100 million people on board, we were successful in achieving our target of not exceeding a rate of 6.2. This success is attributed in part to FAA's implementation of safety management systems, participation in the Commercial Aviation Safety Team, establishment of safety-critical regulations, and implementation of the Takeoff and Landing Performance Assessment initiative.

COMMERCIAL AIR CARRIER FATALITY RATE
Fatalities per 100 million persons on board



	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Actual	1.1	0.6	0.1	0.6	0.3[1]	0.1[2]
Target	7.4	7.2	6.9	6.7	6.4	6.2
Target Achieved?	✓	✓	✓	✓	✓	✓

1 Preliminary estimate; National Transportation Safety Board will confirm in March 2019. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

2 Preliminary estimate; National Transportation Safety Board will confirm in March 2020. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

Safety Management Systems

Our commercial safety record indicates the agency has successfully addressed the majority of known system hazards that contribute to accidents or incidents. However, the agency must identify and reduce risks before they lead to an accident or incident. For this reason, the FAA continues to work with aviation industry stakeholders to establish and implement safety management systems to identify and reduce risk within their operations and in the nation's airspace. With these systems, the FAA and the aviation industry work together using a proactive approach that continuously improves aviation safety. The ultimate goal is to prevent accidents from happening at all and reduce incidents as much as possible.

A Safety Management System is a series of processes and procedures that everyone follows to enhance safety. The processes include evaluating data from airline operations in a structured approach. Operations data can help identify patterns and trends that could possibly lead to a problem. Evaluating this information enables the industry to take action before there is a problem. A Safety Management System does not replace FAA oversight or inspections, but it does help foster a stronger safety culture within the aviation community.

Commercial Aviation Safety Team (CAST)

Our success in commercial aviation safety is due in part to the aviation industry and government investing in safety enhancements that reduce fatality risk in commercial air travel in the United States. CAST brings together representatives from government, pilot and air traffic controller associations, airlines, airports, and aviation manufacturers to analyze data, identify top safety concerns, and implement interventions to address those risks. The work of CAST, along with new aircraft, regulations, and other activities continues to have a positive impact in reducing the fatality risk for commercial aviation in the United States. The group has reduced this risk by focusing resources on risk areas, including:

- Runway excursions (veer off or overrun of a runway)
- Controlled flight into terrain

Chicago O'Hare Airport exterior in Chicago, Illinois.

- Approach and landing accidents
- Loss of control
- Runway incursions (the presence of an unauthorized plane, vehicle, or person on a runway)
- Weather
- Turbulence
- Icing
- Cargo-related accidents
- Maintenance
- Uncontained engine failures

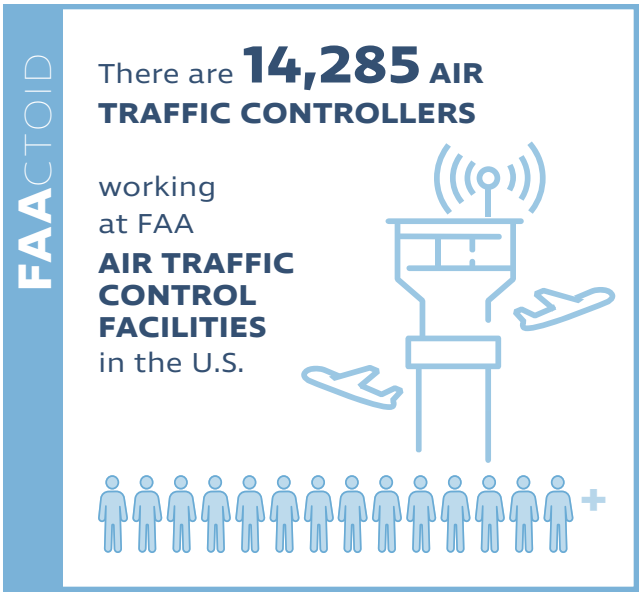
CAST has developed 101 safety enhancements to date. The last 22 enhancements were based on non-accident data, demonstrating its progress from reactive safety enhancements to proactive risk mitigation. CAST has developed an integrated, data-driven strategy to reduce the commercial aviation fatality risk in the United States. To learn more about CAST, please visit ***https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=18178***.

Regulations

In FY 2018, the FAA continued to work on developing a final rule to enhance the professional development of pilots who work for commercial air carriers. Once final, the rule will enhance pilot mentoring and development programs to reduce pilot errors that can lead to a catastrophic event. On June 27, 2018, FAA published a final rule titled "Regulatory Relief: Aviation Training Devices, Pilot Certification, Training, and Pilot Schools". This rule relieves the burdens on pilots seeking to obtain aeronautical experience, training, and certification by promoting increased use of aviation training devices.

Takeoff and Landing Performance Assessment (TALPA) Initiative

Last year the FAA implemented the Takeoff and Landing Performance Assessment (TALPA) initiative, which requires airports to report runway surface conditions. The TALPA initiative uses standardized reports to compare runway conditions with manufacturer's aircraft-specific performance data. The TALPA initiative is helping pilots determine the runway length needed to safely stop an aircraft after a rejected takeoff or a landing. The initiative also enables airplane operators, pilots, and flight planners to determine more accurately the distance required to stop on wet or contaminated runways. The FAA pursued this initiative following the overrun of a large commercial aircraft at Chicago Midway International Airport in December 2005. While landing in a snowstorm, the aircraft crashed into automobile traffic, killing a six-year-old boy. The FAA continued to refine the system during FY 2018, and the majority of airports using TALPA reported that they found the system beneficial.



Runway Incursion Rate (Category A & B)

Reduce Category A & B (most serious) runway incursions to a rate of no more than 0.395 per million operations, and maintain or improve this rate through FY 2018.	
FY 2018 Target	Reduce Category A & B (most serious) runway incursions to a rate of no more than 0.395 per million operations.
FY 2018 Result	**0.132** *(Preliminary estimate until the final result becomes available in January 2019.)*
Public Benefit	Runway incursions create dangerous situations that can lead to serious accidents. Reducing the number of runway incursions lessens the probability of accidents that potentially involve fatalities, injuries, and significant property damage.

The FAA continuously monitors the runway safety fatality risk. This risk has remained below the FAA's target over the past six years, as the FAA continues its runway safety promotion outreach and education initiatives. However, even small changes in the number of serious runway incursions can result in large changes in the rate, which reflects the number of incursions per 1 million operations.

To monitor the risk, FAA uses precursor events called runway incursions. These occurrences involve the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft. In the United States, there is an average of three runway incursions daily. Each of these incidents has the potential to cause significant damage to both persons and property.

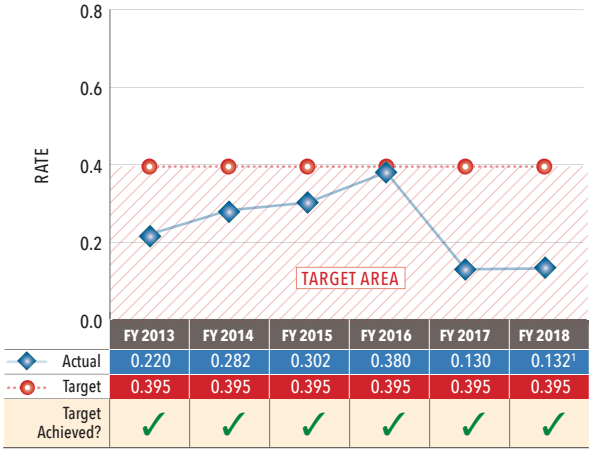
A number of factors may lead to a runway incursion. As seen in the chart below, these factors include pilot deviations, operational incidents, and vehicle/pedestrian deviations.

Pilot Deviations	► Crossing a runway hold marking without clearance from air traffic control ► Taking off without clearance ► Landing without clearance
Operational Incidents	► Clearing an aircraft onto a runway while another aircraft is landing on the same runway ► Issuing a takeoff clearance while the runway is occupied by another aircraft or vehicle
Vehicle/ Pedestrian Deviations	► Crossing a runway hold marking without air traffic control clearance

The FAA has four categories of runway incursions:

- **Category A**: A serious incident in which a collision was narrowly avoided.
- **Category B**: An incident in which separation decreases and there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.
- **Category C**: An incident characterized by ample time and/or distance to avoid a collision.

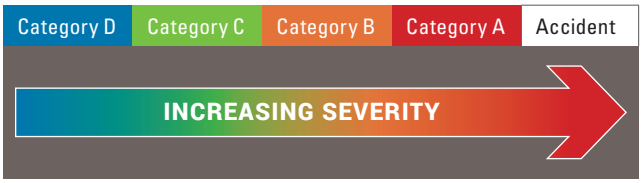
RUNWAY INCURSION RATE
Per million operations



	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Actual	0.220	0.282	0.302	0.380	0.130	0.132[1]
Target	0.395	0.395	0.395	0.395	0.395	0.395
Target Achieved?	✓	✓	✓	✓	✓	✓

1 Preliminary estimate; National Transportation Safety Board will confirm in January 2019. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

- **Category D**: An incident that meets the definition of runway incursion such as incorrect presence of a single vehicle/person/aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences.



While the FAA tracks all four categories of runway incursions, this performance measure includes only the two most serious categories: A and B. As of the date of publication, the Category A and B runway incursion rate for FY 2018 is estimated at 0.132 incursions per million operations, which indicates that the FAA achieved its target. The final results will be available in January 2019.

The FAA has made significant progress in improving runway safety at U.S. airports over the past 15 years by working with other members of the aviation community on education, training, marking and lighting, standard runway safety areas, new technology, and airfield improvements.

The agency plans to build on past success by working with airport sponsors over the next 10-15 years to further reduce runway risks through risk-based decision-making. In July 2015, the FAA initiated a program called the Runway Incursion Mitigation (RIM) program to address runway/taxiway intersections that have challenges with incursions. RIM focuses on locations that had three or more incursions in a single calendar year, or those that average one or more incursions a year over the study period (approximately 10 years). In total, the FAA has implemented mitigations at 28 locations that had experienced 297 runway incursions during the study period. After the implementation of RIM, the number of runway incursions at these 28 locations dropped to eight. In FY 2018, the FAA started RIM projects at an additional 10 locations.

The FAA is proposing an improved risk-based approach to runway safety that will monitor all types of relevant safety events that occur in the runway environment. These include events involving runway excursions, incursions, and surface incidents. The FAA expects to establish this risk-based surface safety metric as the new performance measure in FY 2019.

To learn more about runway safety, please visit:
http://www.faa.gov/airports/runway_safety/

The operator of the FAA's Rosenbauer Panther Aircraft Rescue and Fire Fighting research vehicle positions the piercing nozzle of the high-reach extendable turret at the window of the L-1011 test aircraft. Research conducted with this vehicle is intended to develop improved technologies in aviation fire fighting and increase post-crash survivability of passengers in future aircraft accidents. William J. Hughes Technical Center.

System Risk Event Rate (SRER)

Reduce risks in flight by limiting the rate of the most serious losses of standard separation to 10 or fewer for every thousand losses of standard separation within the national airspace system.	
FY 2018 Target	Reduce risks in flight by limiting the rate of the most serious losses of standard separation (LoSS) to 10 or fewer for every thousand losses of standard separation within the national airspace system.
FY 2018 Result	**2.97** *(Preliminary estimate until the final result becomes available in January 2019.)*
Public Benefit	SRER safety data provides the FAA with a quantifiable list of hazards that contribute to the highest risk events in the national airspace system. By addressing the most serious hazards, this targeted approach has become one of the FAA's most powerful tools for identifying hazards, taking corrective action to mitigate the likelihood of severe LoSS events, and monitoring the results. The targeted approach is the culmination of our proactive safety management process, which includes valuing input from frontline employees, developing new policies, and deploying new technology, resulting in a greater measure of safety for the flying public.

At any given time, there are roughly 7,000 aircraft occupying our nation's airspace. To help maintain safe distances between aircraft while they are under the control of air traffic controllers, the FAA has established minimum separation standards, based on an aircraft's phase of flight and its size.

In 2011, in an effort to move beyond one-dimensional safety metrics (i.e., procedural noncompliance tallies), the FAA introduced the SRER, a 12-month rolling rate that shows the most serious loss of separation events across our airspace system. A target of 20 had been set for FY 2012 through FY 2016 to establish a baseline while deploying improved analysis and loss of standard separation detection capability. Based on analysis of the historical data, the determination was made to lower the target to 10 in FY 2017 and FY 2018. In FY 2018, with a result of 2.97, the FAA achieved our target of limiting the most serious losses of standard separation to 10 or fewer for every thousand losses of standard separation within the system.

The FAA is currently analyzing the process of how events become classified as Risk Analysis Events (RAEs). The results of this inquiry could change the way RAEs are assessed, which could increase the number of RAEs and affect how the FAA sets its targets in the future.

What is "most serious?" All validated losses of standard separation events with 66 percent or less of standard separation are categorized as RAEs and are examined by a panel consisting of air traffic controllers, pilots, and other experts. For example: for an occurrence in which 3 miles lateral separation between two aircraft was required, any point where the aircraft were separated by only 2 miles (66 percent) would be an RAE. Criteria such as proximity, closure rate, repeatability, and severity are then used to determine if the RAE is a serious event. The loss of standard separation data will then be used to compute the SRER, which is the rate of the most serious losses for every thousand losses of standard separation within the system.

SYSTEM RISK EVENT RATE
Rate of serious losses of standard separation per thousand losses

	Target	Actual	Target Achieved?
FY 2018	10	2.97[1]	✓
FY 2017	10	2.24	✓
FY 2016	20	2.66	✓
FY 2015	20	2.62	✓
FY 2014	20	3.44	✓
FY 2013	20	5.66	✓

1 Preliminary estimate until the final result becomes available in January 2019. We do not expect any change in the final result to be significant enough to alter our year-end status of achieving the target.

The SRER allows FAA to:

- Increase the amount of data collected and analyzed to achieve better understanding of risk
- Align our approach to safety with that of our international partners
- Integrate pilot and air traffic controller performance data on all air traffic incidents
- Evaluate separation incidents caused by other factors, including pilot deviations
- Avoid underreporting and misclassification of incidents

Using the benefits of SRER, the FAA can identify losses of separation and obtain a more accurate picture of system safety performance.

The FAA's systemic view of safety within the national airspace system places more value on discovering why adverse safety occurrences happen and in identifying risks, rather than determining who was at fault. By implementing voluntary safety reporting, new electronic separation loss detection programs,

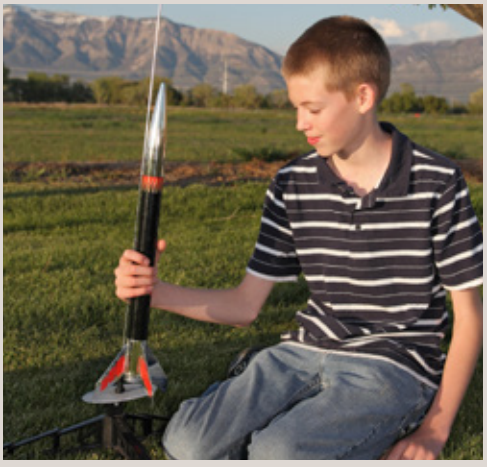
A New Old Challenge: Safe Airspace from Amateur Rockets to Drones

In 1957, the Soviets launched Sputnik, the first artificial satellite and the first manmade object placed in the Earth's orbit, shortly followed by Sputnik II. In early 1958, the United States successfully launched its first satellite on a four-stage Juno I rocket. The space race had begun.

Adults and children alike became enamored with rockets and rocketry. They quickly formed amateur rocket clubs around the country. Amateur rocketry was a dangerous hobby since explosive chemicals were used as fuel. Reports of injuries became common, and so many towns banned the firing of homemade rockets.

While local fire departments, insurance companies, and even the American Rocket Society worried about injuries to people, FAA's predecessor agency, the Civil Aeronautics Administration (CAA), expressed concern about rocketry's impact on the safety of the flying public. By the early 1960s, more than 5,000 amateur rocket clubs with more than 40,000 active members operated in the United States. As the rocket builders became more sophisticated, some rockets weighed up to 75 pounds and could reach an altitude of over five miles. With a distinct threat to aviation, the Federal Aviation Agency, the successor to CAA, responded with regulations in 1963 that set out a number of conditions that prohibited the launching of rockets and missiles and required notification to local air traffic control before launches.

Fast forward 50 plus years and the FAA is addressing a similar yet more complicated threat to the safety of our nation's airspace—unmanned aircraft systems (UAS) or drones. Like amateur rockets, drones are popular with hobbyists and fall under the purview of the FAA. In December 2015, the FAA required drone hobbyists to register their drones and follow safe flying guidelines. However, unlike amateur rockets, drones are being designed for a variety of commercial uses that presents the FAA with an ever evolving challenge to embrace new uses for drones while assuring public privacy and safety. Safely integrating unmanned aircraft systems into our nation's airspace is one of the FAA's top priorities to protect manned aircraft, to protect people on the ground, and to protect innovation. The FAA successfully integrated rocketry into our airspace and it will do the same with other new entrants as they progress.



and the establishment of a proactive safety management system, the SRER has enabled the FAA to greatly enhance its ability to identify precursors, root causes, and trends of safety risks system-wide rather than reacting to single incidents. The lessons we learn through this process are then incorporated into training operational personnel.

With the additional data gained, the FAA is better able to determine the safety impact of new NextGen air traffic procedures and technologies and, ultimately, make more informed decisions about reductions in separation standards.

IT Risk Management and Information Systems Security

Address 80 percent of Internet Protocol (IP) high value risks within 30 days.	
FY 2018 Target	80%
FY 2018 Result	**100%**
Public Benefit	The FAA is undertaking multiple strategic and tactical initiatives in the development of a comprehensive and strategic framework to reduce cybersecurity risks to the national airspace system, civil aviation, and agency information and information systems. Cybersecurity ensures the availability, integrity, and usability of information systems for the flying public.

High value risks are threats and vulnerabilities to FAA's infrastructure that could disrupt mission critical operations, lead to inappropriate access, and destruction of sensitive information including personally identifiable information—all of which threaten national security. Cybersecurity vulnerabilities have the potential to cause significant safety, economic, and social impacts. The IT Risk Management and Information Systems Security measure ensures that the FAA is well protected against persistent and evolving cyber threats, while recognizing an effective response is required when incidents occur.

The FAA plays a crucial role through management of the national airspace and other mission critical systems for air transportation. Assuring that FAA systems — whether they are a part of the operation of the national airspace system or not - are protected and secure reduces the risk of potential threat damage and the compromising of aviation safety related information. Our national airspace system is a critical part of the national infrastructure and a key resource for which a cyber-attack could have economic, catastrophic, and national defense impacts compromising the safety of the flying public and the nation.

The FAA Security Operations Center (SOC) is an all day, every day operation that serves as the foundation of the FAA security program and is the central reporting point for all cyber events occurring within the FAA and Department of Transportation (DOT). The SOC detects threats, attacks, and weaknesses across all three FAA operating domains: Mission Support, National Air Space, and Research and Development.

For FY 2018, this performance target is measured by dividing the number of high value risks addressed by the total number of high value risks detected. The FAA identified and addressed all 32 IP high value risks within 30 days from initial detection, thereby achieving our goal.

IT RISK MANAGEMENT AND INFORMATION SYSTEMS SECURITY
Percent of Internet Protocol (IP) high value risks addressed within 30 days

	Target	Actual	Target Achieved?
FY 2018	80%	100%	✓
FY 2017	80%	100%	✓
FY 2016	80%	100%	✓
FY 2015	80%	100%	✓

In addition, the FAA is evolving its risk-based approach to computer network defense through participation in the Continuous Diagnostics and Mitigation (CDM) Program, led by the Department of Homeland Security. CDM capabilities enable the FAA to increase network sensor capacity, automate sensor collections, and prioritize risk alerts. The integration of these new technologies protects FAA information and information systems and enhances the capability to respond to emerging cyber threats.

To strengthen the U.S. civil aviation security posture, the FAA is also leading an effort with aviation private and public entities to identify cybersecurity risks and develop mitigation strategies across the aviation spectrum. This effort enables FAA and its stakeholders (other government agencies, airlines, airports, and others) to collaborate and share information to prevent cyber-attacks that could disrupt the safe and efficient operation of air travel.

General Aviation (GA) Fatal Accident Rate

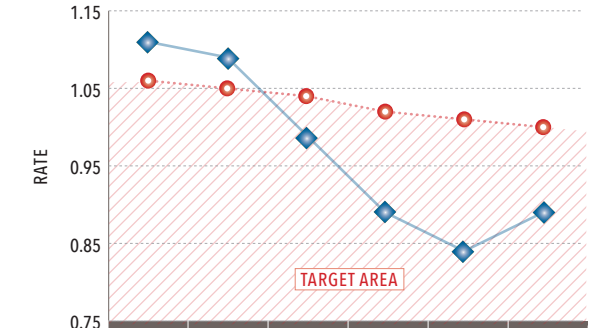
Reduce the GA fatal accident rate to no more than one fatal accident per 100,000 flight hours by 2018.	
FY 2018 Target	No more than 1.00 fatal accidents per 100,000 flight hours in FY 2018.
FY 2018 Result	**0.89** *(Preliminary estimate until the final result can be confirmed by the National Transportation Safety Board (NTSB) in March 2020)*
Public Benefit	By tracking the rate of fatal GA accidents per flight hours, the FAA can more accurately identify trends, indicating a decrease or increase of potential safety risks.

With more than 200,000 active aircraft including amateur built aircraft, rotorcraft, balloons, and highly sophisticated turbojets, the United States has the most vibrant GA community in the world. As an agency, we are continuously working with the greater GA community and industry to reduce the number of general aviation fatalities. Our goal is to reduce the GA fatal accident rate by 10 percent over a 10-year period (2009-2018).

In FY 2018, with a rate of 0.89 fatal accidents per 100,000 flight hours, we achieved our goal of not exceeding a rate of 1.00. The results are not considered final until confirmed by the NTSB in FY 2020. This marks the fourth year in a row that we have achieved our goal in this area. We are proud of this accomplishment and are committed to reducing the GA fatality rate even further.

The FAA continues to analyze GA data and develop strategies to address the challenges of creating a safe environment for GA flights. The agency and industry formed the General Aviation Joint Steering Committee (GAJSC), which uses a non-regulatory, proactive, and data-driven strategy to improve safety.

GENERAL AVIATION FATAL ACCIDENT RATE
Fatal accidents per 100,000 flight hours



	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Actual	1.11	1.09	0.99	0.91	0.84[1]	0.89[2]
Target	1.06	1.05	1.04	1.02	1.01	1.00
Target Achieved?	✘	✘	✓	✓	✓	✓

1 Preliminary estimate; National Transportation Safety Board will confirm in March 2019. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

2 Preliminary estimate; National Transportation Safety Board will confirm in March 2020. We do not expect any change in the result to be significant enough to alter our year-end status of achieving the target.

To reduce accidents, the GAJSC reaches out to the general aviation community to educate pilots and other stakeholders on the benefits of sharing (in a protected, non-punitive manner) safety data through our Aviation Safety Information Analysis and Sharing (ASIAS) program. Data submitted to ASIAS is confidential, de-identified, and will not be used for enforcement purposes. The goal of the initiative is to assist the GA community in reducing the number of fatal accidents by looking for systemic risks that could potentially lead to fatal accidents. The GAJSC has established training topics for airmen based on GAJSC analysis of aircraft accidents.

In FY 2018, the GAJSC focused on safety enhancements related to controlled flight into terrain, which is defined as a collision or near collision with terrain, water, or an obstacle without any indication of loss of control. Forty safety enhancements have been developed to date, over twenty of which have been completed. Additionally, targeted outreach in the area of loss of control has been organized into a topic of the month program. The FAA works with industry groups to coordinate communications and provide educational content on these monthly topics.

To spread safety awareness throughout the aviation community, we conducted over 4,900 live safety seminars and 348 webinars during the year. In addition, we sent 1,367,000 email notifications, airmen notices, and FAA Safety Team (FAAST) blasts to airmen who request them from the www. ***FAASafety.gov*** website, which has a total of over 880,000 users. We use social media like Twitter and Facebook. We provide airman counseling, presentations/booths at aviation events, and safety materials on the ***www.FAASafety.gov*** website. We provide over 343 online courses, which have resulted in over 1,412,000 course completions. Safety outreach has played a major role in accident reduction and continues to be a key element in our progress.

Commercial Space and Reentry Launch Accidents

No fatalities, serious injuries, or significant property damage to the uninvolved public during licensed or permitted space launch and reentry activities.	
FY 2018 Target	No fatalities, serious injuries, or significant property damage to the uninvolved public during licensed or permitted space launch and reentry activities.
FY 2018 Result	**0**
Public Benefit	The FAA's oversight of the commercial space launch industry activities has resulted in no loss of life or property damage to the public.

In 2018, private space companies continued to expand the realm of commercial space transportation activities. One U.S. company completed and launched the most powerful rocket since the Saturn V, which was last used in the 1970s. Another launched a new small-payload rocket from a launch facility in New Zealand. Notably, two companies have sufficiently developed rocket boosters and spacecraft that allowed the National Aeronautics and Space Administration (NASA) to assign astronauts and schedule commercial manned flights to the International Space Station (ISS). These commercial missions will be the first manned spaceflights from the United States since the retirement of the Space Shuttle in July 2011, and they will restore American access to space while eliminating our dependence on high-cost Russian transportation to the ISS. Two more firms entered the final system testing necessary to begin commercial "space tourism" flights. You might think that NASA or some other government space agency launched these missions, but these were done by private industry under a license or permit from the FAA.

It is the FAA's mandate to ensure protection of the public, property, and the national security and foreign policy interests of the United States during commercial launch or reentry activities. The FAA also is charged with encouraging, facilitating, and promoting U.S. commercial space transportation. This dual responsibility provides an oversight framework that has proven to be very beneficial both to the industry and to the American people. Our track record for safety bears this out.

In FY 2018, there were 35 licensed and permitted launches and reentries, and the FAA was successful in maintaining our perfect record of no fatalities, serious injuries, or significant property damage to the uninvolved public during licensed or permitted space launch and reentry (return to earth's atmosphere) activities. To date, the FAA has licensed or permitted more than 340 launches and 17 reentries. The FAA oversees 11 active launch or reentry sites (spaceports), and eight active safety approvals. Safety approvals are issued by the FAA when a component, process, service, or qualified person has been evaluated for safety suitability, and found to be qualified and within acceptable risk standards when used in supporting or conducting a space activity. This can streamline license processing and evaluation since that component, service, or person does not have to be reevaluated for every licensed activity.

COMMERCIAL SPACE LAUNCH ACCIDENTS

Number of fatalities, serious injuries, or significant property damage to the uninvolved public during space launch and reentry activities

	Target	Actual	Target Achieved?
FY 2018	0	0	✓
FY 2017	0	0	✓
FY 2016	0	0	✓
FY 2015	0	0	✓
FY 2014	0	0	✓
FY 2013	0	0	✓

The growth in the industry has been tremendous in recent years. Since 2010, the FAA has seen an increase of approximately 300 percent in the number of launch and reentry operations it oversees; a 150 percent increase in the number of licenses and permits it issues; and an 800 percent increase in the number of inspections FAA performs to ensure safety compliance.

In addition to the growth of the industry, the complexity of the missions coming to the FAA for approval has changed dramatically. The FAA expects future missions to include space tourism, interplanetary travel, commercial space stations, and innovative new designs for traditional launch systems.

To view FAA's fact sheet on commercial space transportation activities, please visit ***https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=19074***.

Unmanned Aircraft Systems (UAS) - Authorizations and Waivers

Target 1: Reduce the average time for processing Part 107[1] airspace authorizations by at least 15 percent to an average of 72 days by September 30, 2018. **Target 2**: Reduce the average time for processing Part 107[1] operational waivers to 50 days for FY 2018 with a 5-day reduction each following year to 2022.	
FY 2018 Target	Target 1: Reduce the average time for processing Part 107 airspace authorizations by at least 15 percent to an average of 72 days by September 30, 2018. Target 2: Reduce the average time for processing Part 107 operational waivers to 50 days by September 30, 2018.
FY 2018 Result	**Target 1: The average time to process airspace authorizations in FY 2018 was 50 days.** **Target 2: The average time to process operational waivers in FY 2018 was 17 days.**
Public Benefit	The American public experiences and expects a high standard of safety in aviation. As the use of unmanned aircraft increases in both volume and complexity, the FAA will preserve our high safety standards by managing the new sources of risk created as UAS are integrated into the national airspace.

1 Part 107 refers to the section of FAA regulations that provides rules for non-hobbyist small UAS operations and covers a broad spectrum of commercial uses for drones weighing less than 55 lbs.

The FAA's vision for fully integrating unmanned aircraft systems (UAS) into the national airspace entails UAS operating harmoniously, side-by-side with manned aircraft in a safe and secure manner. This vision goes beyond the accommodation practices in use today, which largely rely on segregating UAS from manned aircraft. As more uses for drones are developed, the FAA is working incrementally to introduce UAS into the national airspace, giving careful consideration to the safety of people and property both in the air and on the ground.

Last year, the FAA first introduced performance measures related to UAS in order to reflect the priority of the agency's UAS integration efforts. The FAA achieved one of its targets by achieving specific milestones in its UAS integration efforts. Other targets were measures of efficiency, and the FAA achieved both of those targets by processing at least 80 percent of applications for airspace authorizations and operational waivers under the small UAS rule within 90 days. This year, the FAA has further developed its performance measures in order to reflect its continued progress in achieving priority UAS integration efforts. The FAA successfully met its targets by reducing the processing time for both airspace authorizations and operational waivers under the small UAS rule.

As UAS continue to expand in both number and complexity, the demand for airspace authorizations also continues to grow. By October 2017, the FAA had already received over 31,000 airspace authorization requests under the small UAS rule. In order to meet this growing demand, the FAA sought to automate portions of the authorization process. This led to the creation of the Low Altitude Authorization and Notification Capability, or LAANC. The FAA deployed this capability throughout the national airspace during FY 2018, and it has already received over 35,000 authorization requests. LAANC allows operators to receive a near-instantaneous response to their airspace authorization requests. This increases responsiveness to the American public, but also allows FAA personnel to focus on the more complex authorizations, such as those needed for the expanded operations occurring under the UAS Integration Pilot Program (IPP). The IPP will evaluate a host of operational concepts at 10 test sites, including night operations, flights over people, flights beyond the pilot's line of sight, package delivery, detect-and-avoid technologies, and the reliability of data links between pilot and aircraft. The IPP testing will result in a more sophisticated and efficient LAANC authorization process and a decreasing requirement for operational waivers as we fully integrate UAS into the national airspace.

UNMANNED AIRCRAFT SYSTEMS (UAS): AUTHORIZATIONS AND WAIVERS

Target 1: Average time for processing airspace authorizations
Target 2: Average time for processing airspace waivers

	Target	Actual	Target Achieved?
FY 2018	**Target 1**: 72 days	**Target 1**: 50 days.	✓
FY 2018	**Target 2**: 50 days	**Target 2**: 17 days.	✓

1 Part 107 refers to the section of FAA regulations that provides rules for non-hobbyist small UAS operations and covers a broad spectrum of commercial uses for drones weighing less than 55 lbs.

As industry continues to develop more complex uses for UAS beyond those allowed by the small UAS rule, the FAA is receiving an increasing number of requests for regulatory relief through operational waivers. In spite of this increase, the FAA set aggressive targets to maintain recent gains in waiver processing times and then to improve the processing time to an average of 30 days by FY 2022.

Hurricane Recovery

The hurricane season of 2017 serves as a reminder of FAA's core strength — its people. The FAA demonstrated its proven resiliency in the recovery efforts from the 2017 hurricanes that ravaged coastal areas of the U.S. Virgin Islands, Puerto Rico, Texas, Florida, and other areas of the South. The storms brought immense devastation, including the destruction of planes, airports, and supporting equipment and technology. FAA assets were not spared, sustaining damage to facilities, equipment and other services.

In response to these hurricanes, the FAA provided flight check support to restore equipment, supported the transportation of emergency management officials to critical sites, ensured certain airports were safe before scheduled air carrier operations resumed, and guided air shuttles that transported cargo and personnel. The agency also issued temporary flight restrictions to ensure aircraft safety and kept pilots up to date on the vastly changing flight conditions by issuing airmen advisory notices. The FAA responded quickly to disaster emergency agencies' requests for authorization to fly drones in the affected areas to monitor damage by issuing over 358 airspace authorizations to ensure drones could operate safely.

Though FAA personnel are always involved when hurricanes hit, they are not always affected personally by the storms. This was not the case after the back-to-back hurricanes Irma and Maria hit the U.S. Virgin Islands and Puerto Rico in September 2017. Nearly all FAA personnel living on those islands sustained damage to their personal property. In Puerto Rico, despite having no electricity, running water, and limited food, our employees responded immediately by restoring flight systems knowing that life-saving efforts were dependent on it. The FAA collaborating with local air traffic controllers that had sheltered-in-place, the Miami controller team, and military personnel, was able to open the San Juan International Airport within five days of the hurricanes making landfall. As a result, residents of the entire region were able to receive the first air shipments of critical supplies and assistance.

The lengthy recovery effort in Puerto Rico remained arduous. Our team endured dealing with damaged equipment, sustained power outages, lack of fuel, and downed trees to fully restore flight systems. In one heroic example, due to a lack of available roads, our technicians were helicoptered in to a drop point approximately two miles away from the site of damaged radar equipment. They carried parts and supplies via backpack, using chain saws and machetes to clear their two-mile path to the site. This went on for several weeks.

As the recovery efforts continue in Puerto Rico and the U.S. Virgin Islands, the FAA is continuing to bring projects to the finish line and improving the lives of the people of Puerto Rico and the U.S. Virgin Islands affected by the devastating 2017 hurricanes.

Above: An FAA employee walking to reach a site by foot after a hurricane caused debris to block the access road.

Operational waiver processing times were lower than expected in FY 2018 and the agency more than met the goal for the year. Processing times were reduced due to standardized approval for low risk, low complexity operations, and to rejections of poor quality applications. The agency is currently running an educational webinar series to assist applicants with creating higher quality applications that include robust safety assessments.

Additionally, as the quality of applications improves and the industry as a whole matures in terms of technology and operational understanding, the FAA expects to receive applications for even higher risk and more complex operations, which may further increase processing times. For instance, the FAA expects the number of complete applications with sufficient safety for beyond-visual-line-of-sight or operations over people to significantly increase as the educational webinar series progresses, and as more is learned from the IPP operations that started this year.

Strategic Priority: Deliver Benefits Through Technology and Infrastructure

Strategic OBJECTIVE: Lay the foundation for the national airspace system of the future by achieving prioritized NextGen benefits, integrating new user entrants, and delivering more efficient, streamlined services.

Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
NextGen Advisory Committee Recommendations✦ Achieve 80 percent (18 of the 23) NextGen Priorities Joint Implementation Plan commitments, excluding industry-controlled milestones, within a calendar-quarter of their scheduled dates and within 10 percent of the planned cost.	This is a new measure for FY 2016	95%	92%	80%	91.3%	✓
Major System Investments✦ Maintain 90 percent of major baselined acquisition programs within 10 percent of their current acquisition cost, schedule, and technical performance baseline as of the end of FY 2018.	100%	95%	95%	90%	90.5%	✓
Domestic Commercial Aircraft Fuel Consumption Ensure fuel burn from domestic commercial aircraft operations do not exceed base year 2005 levels (42.1 Tg).	36.5	37.7	38.2	≤ 42.1	40.6	✓
Noise Exposure Reduce the number of people exposed to significant aircraft noise to less than 302,000 in calendar year 2017.	340,000	343,000	408,000	302,000	454,000	✘
Unmodified Audit Opinion Obtain an unmodified audit opinion with no material weakness on the agency's financial statements.	Unmodified audit opinion w/no material weakness	Unmodified audit opinion w/no material weakness	Unmodified audit opinion w/1 material weakness	Unmodified audit opinion w/no material weakness	Unmodified audit opinion w/no material weakness	✓

✦ This performance measure supports a DOT Agency Priority Goal.

✓ Target met ✘ Target not met

NextGen Advisory Committee (NAC) Recommendations

Measures NextGen's success in completing the identified milestones in five areas: Surface Operations and Data Sharing; Multiple Runway Operations; Data Communications; Performance-Based Navigation; and Northeast Corridor.	
FY 2018 Target	Achieve 80% (18 of the 23) NextGen Priorities Joint Implementation Plan commitments, excluding industry-controlled milestones, within a calendar-quarter of their scheduled dates and within 10 percent of the planned cost.
FY 2018 Result	**91.3%** (21 of the 23)
Public Benefit	Capabilities identified by the NAC as "high priority, high readiness" capabilities bring tangible, near-term benefits to users of the nation's airspace. Each of the five focus areas provides a different benefit to the public. Surface Operations and Data Sharing increase predictability and provide actionable and measurable surface efficiency improvements. Multiple Runway Operations capabilities increase airport efficiency and reduce flight delays. Data Communications enhances safety by reducing communication errors between the pilot and air traffic control. Performance-Based Navigation procedures provide shorter, more direct flight paths, improved airport arrival rates, and increased safety due to repeatable and predictable flight paths. Northeast Corridor efforts will mitigate and address adverse weather, deconflict arrivals in the New York area, improve arrival and departure throughput, ease congestion points, and address community noise concerns.

In 2009, the RTCA convened its Task Force Five to make recommendations to the FAA on efficiently transitioning to the Next Generation Air Transportation System (NextGen). The NextGen Advisory Committee (NAC) formed as a result of this collaboration. The NAC identifies high-benefit, high-readiness NextGen capabilities for implementation in the near term, with the FAA committing to specific site implementation plans and industry ensuring operator preparedness to take full advantage of NextGen benefits. Industry commitment has been a contributing factor in the FAA's successful optimization of NextGen investments.

In November 2016, the FAA delivered the ***NextGen Priorities Joint Implementation Plan*** to Congress, which outlined a plan to implement a number of high-priority NextGen capabilities that will provide significant near-term benefits to national airspace system users. The plan is updated every two years and includes a three-year window of joint implementation planning, implementation, and industry commitments. The latest plan provides additional focus to surface management through the deployment of the Terminal Flight Data Manager (real-time data sharing to better stage arrivals and departures), as well as additional focus to optimizing Performance-Based Navigation through Time Based Flow Management enhancements (using time instead of distance to sequence air traffic).

To date, the FAA and industry have completed 141 of 143 NAC milestones on time with more than 60 completed ahead of schedule, ranging from large-scale Metroplex (one or more commercial airports with shared airspace that serve at least one major city) airspace redesigns to targeted tasks such as data sharing among the FAA and airline operators. These priorities are providing tangible benefits to industry. In FY 2018, FAA delivered on 21 out of 23 NAC milestones across several focus areas: surface operations and data sharing, multiple runway operations, Performance-Based Navigation, and the Northeast Corridor.

NAC RECOMMENDATIONS

Percent of NextGen Priorities Joint Implementation Plan commitments, excluding industry-controlled milestones, within a calendar-quarter of their scheduled dates and within 10 percent of the planned cost

	Target	Actual	Target Achieved?
FY 2018	80%	91.3%	✓

Surface Operations and Data Sharing

Some of the greatest efficiencies in time, fuel, and passenger comfort can be gained while an aircraft is still on the ground and at the gate. By the end of FY 2018, the FAA completed feasibility assessments of new technologies and procedures involving surface operations and data sharing at all 35 planned airports. The FAA increased data sharing by providing surface surveillance data in the movement area and incidental non-movement area to industry via the System Wide Information Management system. Data sharing among stakeholders in the surface environment is foundational to increasing predictability, efficiency, and optimized traffic flow. In Charlotte, NC, the FAA in partnership with the National Aeronautics and Space Administration evaluated the benefits of integrated arrival, departure, and surface traffic flows by introducing new technologies and procedures into its collaborative operational environment. Surface departure metering (coordinated departure queues, rather than first come, first takeoff) during one assessed departure bank alone saved approximately 51,868 lbs. of fuel and 72 tons of CO_2, equivalent to planting 1,858 urban trees. Efficient scheduling of the overhead stream (the lineup of flights in the air) has saved over 20 hours of surface delay on Charlotte's airport surface, as well as 42,824 lbs. of fuel by holding planes a bit longer at the gate if need be until an efficient taxi and takeoff is available.

Multiple Runway Operations

The efficiency of parallel runways, particularly those that are closely spaced, has been limited by the interplay of wake vortices with nearby aircraft. Based on advances in wake vortex research, the FAA has improved its wake categorization standards, which is allowing for a safe decrease in separation between aircraft, improving access to these runways, and increasing basic runway capacity. The new wake categorization standards increase airport efficiency and capacity leading to fewer delays, time and fuel burn savings, and a reduction in aviation's carbon footprint. In FY 2018, the FAA implemented wake recategorizations at several locations, including Phoenix, San Antonio, and Washington Dulles. The FAA, along with industry, estimates increased use of multiple runway operations has saved airlines more than $70 million across 22 airports. Individual airports saw arrival and departure throughput improvements runway-by-runway and overall.

Performance-Based Navigation

With Performance-Based Navigation, the FAA delivers new aircraft routes and procedures that primarily use satellite-based navigation and on-board equipment to navigate with greater precision and accuracy. Performance-Based Navigation provides a basis for designing and implementing precision flight paths and redesigning airspace near obstacles for increased access. Within the Performance-Based Navigation focus, the FAA committed to implementing Ground Interval Management – Spacing (GIM-S) at additional airports and at Air Route Traffic Control Centers where an operational improvement was needed. GIM-S gives air traffic controllers more tools to enhance operations in the cruise and arrival phases of the flight. The priorities for these sites include improving GIM-S operations where GIM-S has been introduced already and providing a foundation for more advanced ways to space en route to terminal approaches at sites that will support such enhancements.

Northeast Corridor

The recommended improvements for the Northeast Corridor are designed to address key issues that negatively impact the operational performance of the corridor today. For example, one improvement addresses adverse weather, a major issue in the Northeast Corridor. The FAA has also implemented a number of changes in the Northeast Corridor designed to improve the flow of departures from the Philadelphia and New York areas, a high priority for the NextGen Advisory Committee. Feedback from both FAA and industry personnel has been very positive regarding the efficacy of these changes, and the FAA is currently in the process of quantifying the effects of these improvements. Further, the FAA has completed a number of pre-implementation milestones that will provide the data necessary for the FAA to make future decisions about additional improvements for the Northeast Corridor.

STARS monitors. STARS, a foundational system for NextGen, stands for Standard Terminal Automation Replacement System. Photo: FAA

Major Systems Investments

Ninety percent of major baselined acquisition programs must be maintained within 10 percent of their current acquisition cost, schedule, and technical performance baseline as of the end of FY 2018.	
FY 2018 Target	90% of major baselined acquisition programs must be maintained within 10% of their current acquisition cost, schedule, and technical performance baseline as of the end of FY 2018.
FY 2018 Result	**90.5% of the major baselined acquisition programs were within 10% of their current cost, schedule and technical performance baseline.**
Public Benefit	The FAA's ability to keep acquisitions within budget and schedule will allow for a timely transition of NextGen programs and other new programs. The transition to NextGen and other new programs involves acquiring numerous systems to support precision satellite navigation; digital, networked communications; integrated weather information; layered, adaptive security; and more.

The FAA's ability to make investments in an efficient and cost-effective manner is critical to the implementation of NextGen. For this reason, the FAA established a performance measure that tracks the agency's success in staying within a 10 percent variance of its cost, schedule, and technical performance goals with regard to major system investments. In FY 2018, the FAA achieved this goal, with a total of 90.5 percent of our major systems investments remaining within the 10 percent threshold.

The FAA's ongoing efforts involve the acquisition of numerous systems, tools, and equipment to support precision-based satellite navigation, networked digital communications, integrated weather information, and improved security. The FAA has established acquisition categories (ACATs) within the Acquisition Management System that governs major system investments. Within these categories, several criteria are applied to determine the ACAT level of each acquisition, including:

- Lifecycle costs and annual costs
- Risk level
- Complexity
- Likelihood of changes in the safety of the nation's airspace.

Programs that have lifecycle costs greater than $100 million, or are classified with a medium to high rating in any of the criteria, are assigned an ACAT level of 1, 2, or 3. These are considered major capital investments. In addition, if a program is a key enabler of NextGen or of strategic importance to the agency, it is designated a major program. The FAA tracks and reports the status of each program's acquisition program baseline, using an automated database. The data are used to convey program status and performance information to senior executives for purposes of program reporting, periodic reviews, and decision making.

MAJOR SYSTEMS INVESTMENTS
Percent of major baselined acquisition programs within 10 percent of their current acquisition cost, schedule and technical performance

	Target	Actual	Target Achieved?
FY 2018	90%	90.5%	✓
FY 2017	90%	95%	✓
FY 2016	90%	95%	✓
FY 2015	90%	100%	✓
FY 2014	90%	95%	✓
FY 2013	90%	90%	✓
FY 2012	90%	100%	✓

Reporting on this measure ensures consistency with the Air Traffic Management System Performance Improvement Act of 1996. The Act requires the FAA Administrator to terminate programs funded from the FAA's Facilities and Equipment budget account that are more than 50 percent over their cost, schedule, or performance goals, unless the Administrator determines that termination would be inconsistent with the development or operation of the national airspace system in a safe and efficient manner. In addition, the law requires the FAA Administrator to consider terminating any substantial acquisition that is more than 10 percent over the cost, schedule, or performance goals established for the program.

FAA FACTOID

The FAA **OVERSEES** a system that transports

971 MILLION PASSENGERS annually on U.S. and foreign carriers

Domestic Commercial Aircraft Fuel Consumption

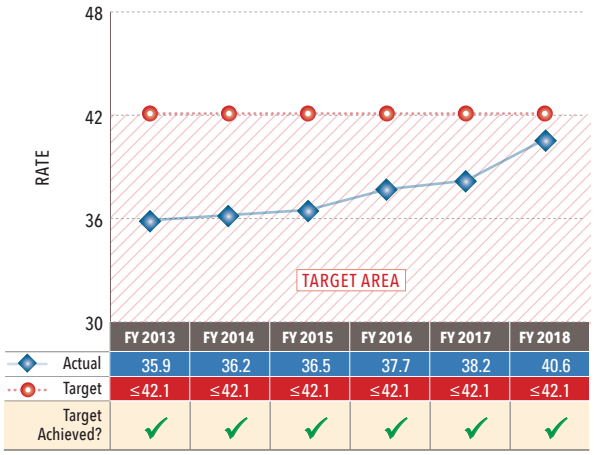
Track annual totals of jet fuel consumption out to 2020 associated with domestic commercial aircraft operations to ensure fuel burn does not exceed base year 2005 levels (42.1 Tg).	
FY 2018 Target	Ensure fuel burn from domestic commercial aircraft operations do not exceed base year 2005 levels (42.1 Tg).
FY 2018 Result	**40.6**
Public Benefit	Today's aircraft are over 70% more efficient than early commercial jet aircraft. While aviation is currently a relatively small contributor to pollutant emissions that have the potential to influence air quality, there is growing concern over aviation's impact on the environment and public health. Aviation emissions directly relate to the fuel consumed during the aircraft's operation.

This performance measure replaces the measure called "Carbon Neutral Goal for Domestic Operations" in the FAA's FY 2017 Performance and Accountability Report, which was based on models of carbon emissions from domestic aircraft operations. The new performance measure is used because it is more accurate to compute and easier to validate.

The FAA monitors improvements in aircraft and engine technology, developments in jet fuels, and airspace operational procedures and enhancements by measuring and tracking the overall fuel consumption of domestic aircraft operations. Also, the annual amount of fuel consumed relates directly to aviation emissions of regulated pollutants. As a result, the FAA established a fuel consumption target that tracks annual domestic commercial aircraft operations out to calendar year 2020. That target is to maintain jet fuel consumption below the 2005 base year level of 42.1 Teragrams.

DOMESTIC COMMERCIAL AIRCRAFT FUEL CONSUMPTION

Fuel burn measured in Teragrams (Tg) for Domestic Operations out to 2020 are below 2005 baseline



	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Actual	35.9	36.2	36.5	37.7	38.2	40.6
Target	≤42.1	≤42.1	≤42.1	≤42.1	≤42.1	≤42.1
Target Achieved?	✓	✓	✓	✓	✓	✓

To date, domestic commercial aircraft operations in the national airspace have maintained fuel consumption levels below the calendar year 2005 levels. This fuel consumption target establishes a measure in order to more directly track overall improvements in fuel efficiency for aircraft and engine technology and optimizations in aircraft routing despite a growth in the number of domestic operations.

Jet fuel consumption performance depends heavily upon commercial airline operating procedures and day-to-day operational conditions. These factors include the condition of the airline's operating fleet and route assignments, air traffic conditions, weather, airport operating status, congestion in the system, and any disruptions that introduce delay in scheduled flights. Success in this measure indicates progress in improving the efficiency of commercial aircraft operations within the nation's airspace.

Noise Exposure

Reduce the U.S. population exposed to significant aircraft noise around airports to less than 302,000 persons in calendar year (CY) 2017.	
FY 2018 Target	Reduce the number of people exposed to significant aircraft noise to less than 302,000 in calendar year 2017.
FY 2018 Result	**454,000 (CY 2017)**
Public Benefit	The public benefit is reduced exposure to unwanted aircraft noise and increased capacity, thus reducing airport congestion and delays.

With the beginning of commercial jet service in the 1950s, air travel became faster, more efficient and more widely available for the public. However, with it came greater impacts of noise around the nation's airports. In 1969, Congress gave FAA the responsibility for reducing noise through regulation of aircraft design and certification.

In the late 1970s, an estimated seven million people in the United States experienced significant levels of noise from aircraft. Compared with these historic highs, the number of people experiencing significant levels of aircraft noise today has fallen dramatically, while at the same time the number of passenger enplanements has increased substantially. Most of the decrease has been from replacing older, noisier aircraft with newer, quieter aircraft, including the phase out of Stage 2 aircraft through the 1990s.

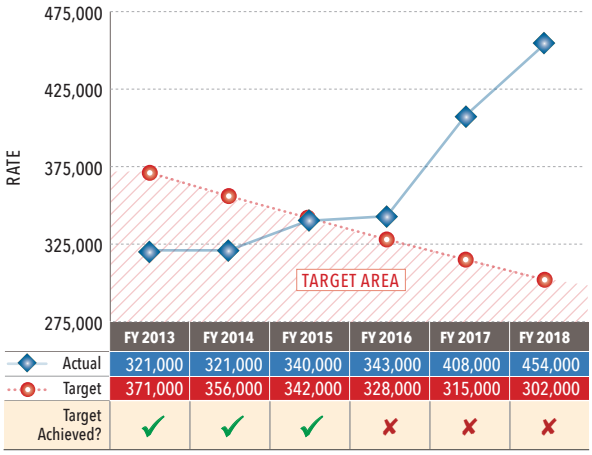
To help quantify aircraft noise exposure around airports, FAA defines significant aircraft noise as being exposed to day-night average sound level (DNL) of 65 decibels or higher. DNL is the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of 10 decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time. DNL takes into account the number of aircraft "noise events," the noise level of each event, and whether the event occurred in the daytime or at night. A noise event is defined as a one-time noise occurrence above a prescribed decibel level.

For FY 2018, FAA has set the noise goal of keeping the number of people exposed to aircraft noise below 302,000 for calendar year 2017. This goal, set in FY 2000 and modified in FY 2005, was based on operational trends and noise modeling capabilities available at the time. With a result of 454,000 people exposed to significant aircraft noise in calendar year 2017, the FAA did not achieve its FY 2018 performance goal.

Although the FAA has achieved this goal in the past, the number of people exposed to significant aircraft noise has been increasing in recent years due to operational changes and population growth around airports. Even small changes in noise exposure can potentially cause large changes in the population count due to the uneven distribution of the population around an airport. In addition, improvements in the way we model aircraft performance and noise has resulted in discontinuities in reported noise exposure over the years.

NOISE EXPOSURE

Number of people exposed to significant aircraft noise



	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Actual	321,000	321,000	340,000	343,000	408,000	454,000
Target	371,000	356,000	342,000	328,000	315,000	302,000
Target Achieved?	✓	✓	✓	✗	✗	✗

Operational factors that have contributed to noise exposure changes include variations in the number of flights at individual airports, time of day when those flights occur, and the fleet mix at those airports. Physical airport changes such as temporary runway closures due to construction or weather, or other airfield modifications; and in some cases airspace changes have also been primary drivers. Population growth around airports and updated census data has contributed to the increase in number of people exposed to aircraft noise.

Additionally, FAA continues to improve the methods it uses to estimate the number of people exposed to significant aircraft noise around airports. When combined with operational changes, these modeling improvements have contributed to the reported increases in noise exposure in recent years. For FY 2018, the FAA introduced a process to better estimate the number of operations at smaller, general aviation, and regional airports. While there was only a modest growth in annual operations flown, the improved accounting of operations

resulted in a more sizeable increase compared with number of operations estimated at small to mid-sized airports. This increase, in turn, resulted in an overall increase in the estimated number of people exposed to noise. The FAA also introduced a modeling improvement to better capture year-to-year changes in aircraft flight paths, which resulted in both noise increases and decreases depending on the level of air traffic route changes occurring around a specific airport and the population distribution around each airport.

To understand more accurately trends in aircraft noise exposure, FAA has undertaken a process to reanalyze the number of people exposed to significant noise from prior years. Using common updated modeling methodologies and assumptions, this analysis will compare changes in population exposed to significant levels of aircraft noise solely based on the year-to-year operational changes observed. Once this work is complete, FAA will reassess the noise exposure goal and the noise reduction trend to determine an appropriate reporting method going forward.

The FAA has made great strides in reducing noise impacts on the public, primarily through advancements in aircraft technology. Our Continuous Lower Energy Emissions and Noise program is accelerating the maturation of technologies such as noise-reducing engine nozzles and engine components. Once introduced into the fleet, these technologies will reduce aircraft noise for decades to come. More information about this program can be found at: ***http://www.faa.gov/go/cleen***.

Right: Controller training at Oakland Center. Photo: FAA

Unmodified Audit Opinion with No Material Weakness

Obtain an unmodified audit opinion with no material weakness on the agency's financial statements.	
FY 2018 Target	Obtain an unmodified audit opinion with no material weakness on the agency's financial statements.
FY 2018 Result	**Unmodified audit opinion with no material weakness.**
Public Benefit	The public benefits by being assured, confirmed by independent auditors, that the consolidated financial statements of the FAA are presented fairly in all material respects.

The unmodified audit opinion target is a critical indicator of financial condition because it independently assesses the fair presentation of FAA's financial statements and, in connection with that process, considers the internal control over financial reporting.

In FY 2018, the FAA received an unmodified audit opinion on its consolidated financial statements with no material weaknesses. An unmodified audit opinion means that the financial statements are presented, in all material respects, in accordance with U.S. generally accepted accounting principles.

While many organizations consider an unmodified audit opinion alone to be a "clean" audit, the FAA sets a performance measure reflecting the higher standard to which it holds itself. The FAA's unmodified audit opinion target also requires no material weaknesses in internal control. However, last year, the FAA changed its method of estimating environmental decommissioning liabilities, introducing an error to the third quarter unaudited financial statements, resulting in a material weakness that caused FAA to miss its performance target for this measure.

We have since corrected the environmental decommissioning liability estimation methodology and we have additionally strengthened the controls and internal FAA communications surrounding changes to estimation methodologies. As a result, the FAA again has achieved its target of obtaining an unmodified audit opinion with no material weaknesses for FY 2018.

UNMODIFIED AUDIT OPINION
Obtain an unmodified audit opinion with no material weakness on the agency's financial statements

	Target	Actual	Target Achieved?
FY 2018	Unmodified Audit Opinion with no Material Weakness	Unmodified Audit Opinion with no Material Weakness	✓
FY 2017	Unmodified Audit Opinion with no Material Weakness	Unmodified Audit Opinion with one Material Weakness	✘
FY 2016	Unmodified Audit Opinion with no Material Weakness	Unmodified Audit Opinion with no Material Weakness	✓
FY 2015	Unmodified Audit Opinion with no Material Weakness	Unmodified Audit Opinion with no Material Weakness	✓
FY 2014	Unmodified Audit Opinion with no Material Weakness	Unmodified Audit Opinion with no Material Weakness	✓
FY 2013	Unmodified Audit Opinion with no Material Weakness	Unmodified Audit Opinion with no Material Weakness	✓

Below: Airside at Baltimore-Washington International Thurgood Marshall Airport.

Airports—Behind the Scenes

Most airline passengers notice only a few key parts of the airport—the access road, the parking garage, the terminal, security checkpoint, and restaurants and shops.

Once on board, passengers in a window seat might see a bit more—such as crews loading baggage, fuel, food and beverages, guiding aircraft into adjacent gates, conducting pre-flight inspections, or applying anti-icing chemicals.

As the aircraft makes its way to the runway, even less is usually seen—taxiways, lights, signage, pavement markings, and a lot of specialized structures and equipment (including antennas and sensors).

Even for the passenger in the window seat, there is a lot more hidden from view. Airports require vast amounts of land—to protect against encroachment by buildings and other structures that could jeopardize safe flight paths; to provide noise buffers for nearby neighborhoods; and to protect for future aviation needs. Large-hub airports range from just over 600 acres (such as Chicago Midway and San Diego) to more than 10,000 acres (Dallas/Fort Worth and Orlando) or more than 30,000 acres (Denver).

Airports also require carefully engineered drainage systems. Because commercial aircraft take off and land at more than 150 miles per hour, they can't run the risk of skidding on ice or losing directional control due to standing water. Also, airports try to minimize the amount of water collecting in ditches and detention ponds, because that can attract birds. Similarly, many airports have to have special systems to collect and treat deicing chemicals.

In fact, runways and taxiways are far more complex structures than meets the eye. The top surface (whether made of concrete or asphalt) may be two feet thick or more sitting on a carefully structured base, sub-base, and foundation—in total, the structure may be six feet deep or more. Runways and taxiways have to be strong enough to handle the weight and constant usage of large airplanes; and they must hide and protect all of the drainage lines and cables and housing for power, signage, lighting systems, weather sensors and other types of systems for communications, navigation and surveillance. The FAA works closely with airports to constantly inspect the condition of runways and every critical facility and system to ensure they are working correctly to protect the safety of the traveling public (as well as the efficiency and capacity of the air transportation system).

The largest airports often have 25,000 to 50,000 people working there every day (the equivalent population of a large town). When you add in the number of passengers flying through a large airport, that number can swell to over 300,000 people in an airport daily - now a mid-sized city! The people who serve airports include airport and airline employees as well as people who work for the FAA, Department of Homeland Security, concessionaires, contractors, and other businesses. This includes technicians who maintain key equipment such as elevators, escalators, moving walkways and people-movers, as well as electrical, lighting, telecommunications, security and access controls, baggage handling, heating, cooling, and plumbing systems. Some of these people are public-sector employees but many of them work for commercial contractors and service-providers. International airports need other federal agencies, too—Customs, Immigration, Department of Agriculture inspectors, and so on.

There are also nearly 3,000 smaller, general aviation airports that are also critical to the system. They support functions that can't generally be handled at the busy commercial service airports—functions like flight training, emergency response, aircraft maintenance, and others. If the busiest commercial service airports had to support those functions, then those airports would be a lot more congested than they are now.

Bottom line: It takes a lot more than just what's visible to keep the nation's airports safe and efficient. Next time you get on a flight, look around and try to see what you've been missing.

Right: This aerial photograph of New York's JFK International Airport shows the complexity of runways, taxiways, terminals, access roads and other critical facilities in a tightly constrained environment.

Strategic Priority: Enhance Global Leadership

Strategic OBJECTIVE:	Improve safety, air traffic efficiency, and environmental sustainability across the globe through an integrated data-driven approach that shapes global standards, enhances collaboration and harmonization, and better targets FAA resources and efforts.					
Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
Enhance Global Leadership Develop data-informed regional and global priorities for inclusion in the FAA International Strategy to inform FAA engagement decision-making.	This is a new measure for FY 2017	This is a new measure for FY 2017	Priorities added to international strategy	Add regional and global priorities to the int'l strategy	Regional and global priorities developed and added	✓

✓ Target met ✘ Target not met

Enhance Global Leadership

Develop data-informed regional and global priorities for inclusion in the FAA International Strategy to inform the FAA in international engagement and decision-making.	
FY 2018 Target	Develop data-informed regional and global priorities for inclusion in the FAA International Strategy and to inform the FAA in international engagement and decision-making.
FY 2018 Result	**The FAA developed updated data-informed regional and global priorities for the FAA's International Strategy to guide decision-making related to future FAA international engagement and support.**
Public Benefit	Using an integrated data-informed approach helps the FAA better target resources to shape global standards and assist countries to improve aviation safety, efficiency, and environmental sustainability to the benefit of the U.S. flying public.

Strong partnerships and active collaboration are key elements to creating consistent aviation standards around the world and for making international air travel safer. The FAA created the Global Leadership Initiative to engage with the international aviation community to improve safety, efficiency, and environmental sustainability of the global aviation system. In addition, U.S. citizens traveling abroad and on flights between the United States and other countries benefit from increased safety due to FAA expertise in developing international regulations and standards. The FAA continues to make data-informed decisions in international engagement through this performance measure to maximize the benefits and return value for the U.S. traveling public and to help ensure that U.S. industry can participate in the global marketplace.

Engagement with aviation partners on an international level and outreach among the broader aviation community are critical elements of the FAA's Global Leadership Initiative. The actual form of engagement is dependent upon the unique characteristics of the regional and global communities with which the FAA interacts, as well as the data and factors influencing each situation. At a time of rapid change, with new players in the global aviation community and new technologies, products, and business models, the FAA continues to adapt to this shifting landscape with new methods of engagement and outreach.

The FAA maintains an International Strategy that describes how the FAA adapts its efforts to address evolving global challenges and achieve U.S. aviation objectives. This strategy also provides a multi-year approach for coordinating and executing FAA's international mission. The International Strategy is supported by annual strategic plans that track activities and progress at both the global and regional levels.

The FAA's approach involves agency-wide collaboration to make decisions about how we engage globally and how we can better allocate resources. We rely on an expansive database of global aviation information to inform and drive resource allocations and engagement decisions. For example, analysis of this database showed the value of spearheading an agency focus on the Caribbean. The FAA launched the Caribbean Initiative to improve airspace efficiency and airport safety in this region where so many Americans travel. The FAA also uses data to decide which foreign countries we will help through technical assistance such as training, flight inspections, equipment, spare parts and repair services, and cooperative agreements.

ENHANCE GLOBAL LEADERSHIP[1]
Develop data-informed regional and global priorities for inclusion in the FAA International Strategy to inform FAA engagement decision-making.

	Target	Actual	Target Achieved?
FY 2018	Add regional and global priorities to the International strategy	Regional and global priorities developed and added	✓
FY 2017	Add priorities to international strategy	Priorities added to international strategy	✓

In FY 2018, the FAA continued to refine its focus on international engagement by outlining priorities in its International Strategy at the global and regional levels. Our global and regional engagements resulted in several major accomplishments.

- **International Training**: FAA assessed current FAA international training capabilities and recommended effective transformation options to more strategically target FAA training courses and deliver global training in a more cost-effective manner.
- **International Civil Aviation Organization Influence & Leadership**: FAA continued to provide opportunities for the FAA and the U.S. to share best practices, provide global leadership, and strategically influence solutions to worldwide aviation issues such as cybersecurity, unmanned aircraft systems, commercial space transportation, and environmental sustainability.

- **Association of South East Asian Nations (ASEAN) Engagement**: As a "Dialogue Partner" to the ASEAN Air Transportation Working Group, the FAA assisted the group to find solutions to ASEAN's unique challenges by sharing U.S. best practices and lessons learned in safety, airspace efficiency and capacity, and environmental leadership.
- **Northeast Asia Engagement**: The FAA worked in support of U.S. policy to ensure active engagement in Northeast Asia with safety, efficiency, modernization and harmonization initiatives, most notably with China and Japan.
- **U.S.-European Union (EU) Safety Agreement Expansion**: Continued collaboration with Europe to expand the scope of cooperative agreements to optimally leverage U.S. and EU certification and safety oversight systems.
- **NextGen Harmonization & Interoperability**: Continued active dialogue and joint programs with the European Union to harmonize air traffic modernization efforts to ensure seamless global air traffic management services for aviation users and reduce development and implementation risk for NextGen programs.
- **Brexit**: Actively worked to mitigate projected disruption from the United Kingdom's decision to exit the European Union, in order to avoid interrupted safety oversight and certification, and continue air traffic modernization with the UK.
- **Caribbean Initiative**: Executed many new efforts within the Caribbean Initiative, including airport safety measures, Air Traffic Flow Management/Collaborative Decision-Making projects, implementation of RTCA Tactical Operations Committee Eastern Regional Task Group recommendations, and improvement in air traffic controller communications between the FAA and foreign air traffic control facilities in the Caribbean.
- **Mexico Engagement**: Engaged with Mexico's civil aviation authorities on initiatives to improve aviation safety and efficiency, increase data sharing and further enhance air transportation system modernization and harmonization.

Right: Blue Origin launch vehicle shown (vertical) landing. Crew module has separated and lands via parachute. Both are intended to be reusable. Photo: Copyright/Credit: Blue Origin

Strategic Priority: Empower and Innovate with the FAA's People

Strategic OBJECTIVE:	Prepare FAA's human capital for the future by identifying, recruiting, and training a workforce with the leadership, technical, and functional skills to ensure the United States has the world's safest and most productive aviation sector.					
Performance Measure	FY 2015 Results	FY 2016 Results	FY 2017 Results	FY 2018 Target	FY 2018 Results	FY 2018 Status
Employee Engagement Index Increase the Agency's Employee Engagement Index score to 70 percent positive.	This is a new measure for FY 2017	This is a new measure for FY 2017	68%	70%	68%	✘

✓ Target met ✘ Target not met

Employee Engagement Index (EEI)

Strengthen FAA employee engagement and workplace culture through an improved FedView Survey EEI score.	
FY 2018 Target	Increase the FAA Employee Engagement Index (EEI) Score to 70 Percent Positive
FY 2018 Result	**68 percent positive**
Public Benefit	Improvements in FedView results used to calculate the EEI indicate that FAA is better engaging its employees. Research indicates that improved employee survey engagement results are associated with higher organizational performance.

Each year, the Office of Personnel Management (OPM) administers the Federal Employee Viewpoint Survey, or FedView. This survey measures employees' perceptions of the extent to which conditions characterizing successful organizations are present in their agencies. In FY 2018, the FAA replaced its Best Places to Work ranking with the OPM Employee Engagement Index (EEI). The EEI consists of 15 FedView Survey items organized into three sub-indices (Leaders Lead, Supervisors, and Intrinsic Work Experience) that measure conditions that can lead to engagement. The EEI is a more actionable performance metric that gives FAA organizations greater control over addressing their employee feedback from the FedView Survey.

The FAA's score for FY 2018 was unchanged from last year, at 68 percent positive. While we did not meet our goal of 70 percent, the FAA's scores improved in two of the three sub-indices that comprise the EEI — Leaders Lead and Supervisors both improved by one percent to 55 and 78 percent respectively. The sub-index of Intrinsic Work Experience decreased one percent to 72 percent positive.

Some of the actions that FAA leaders are taking to influence the potential of their workplaces to improve employee engagement include increasing two-way communications with their workforces through brown bag lunches, town halls, and site visits; providing honorary and non-honorary recognition; providing opportunities for growth and development; and supporting agency work-life programs.

The FAA also emphasizes transformational leadership practices to strengthen workforce engagement. To communicate and integrate leadership capabilities and practices into our workforce, FAA has introduced 29 new web-based management and leadership micro-learning courses for our leaders. These courses are offered by FAA's Leadership and Learning Institute (FLLI). Since its inaugural year (2014), FLLI has trained over 11,000 students in instructor-led courses and had over 45,000 web-based training completions. FLLI's new Foundational Leadership Curriculum combines the latest in learning best practices with the essential knowledge and skills FAA managers need to be successful leading in the FAA. FLLI's Professional Skills Curriculum and Exploring Leadership Curriculum provide future managers a venue to learn the concepts of FAA management and leadership before entering the position. In FY 2018, FLLI has managed over 25,000 completions of these curricula. The agency also offers executive level courses, called Influencing our Performance Culture and Transforming our Performance Culture, for our highest-level leaders, equipping them with the skills needed to balance the demands of building the future of aviation while maintaining the rigor of our current systems.

FAA EMPLOYEE ENGAGEMENT INDEX
Employee Engagement Index Score

	Target	Actual	Target Achieved?
FY 2018	70%	68%	✘
FY 2017	68%	68%	✓

Above: Student controllers in training at the FAA Academy, Oklahoma City, Okla. Photo: FAA

Quality Assurance and Cost Controls

Verification and Validation of Performance Information

FAA employs strong management controls to ensure the accuracy, completeness, and timely reporting of performance data. Because of rigorous internal and external reviews, the FAA's verification and validation process produces performance results that agency managers and the Administrator are confident of.

In addition to internal verification and review by the FAA, performance data is independently verified by the Department of Transportation. Moreover, data from several FAA safety performance measures, such as the Commercial Air Carrier Fatality Rate, require independent verification by the National Transportation Safety Board (NTSB) and the Bureau of Transportation Statistics. Data for these measures are not considered final until the NTSB completes its report on each incident.

Completeness and Reliability of Performance Data

The agency's internal review processes support the integrity of our performance data. At the beginning of each fiscal year, we update the performance measure profiles, which essentially function as a clearing house for accurate and detailed documentation of our performance measures. An exhaustive report includes technical definitions for each measure, as well as data source information, statistical issues, and completeness and reliability statements. Where the criteria for targets have changed, it is noted and the changes are explained.

To supplement the performance measure profiles, the agency annually conducts an internal review of the verification processes used by all internal FAA organizations responsible for collecting and reporting performance data. The agency's full understanding of these processes allows it to provide complete and definitive documentation of results at the end of the year.

Program Evaluations

Program evaluations are an assessment of the manner and extent to which an agency has achieved its objectives. While performance measures use statistics to show whether the FAA has achieved its intended outcomes, program evaluations use analytical techniques and other measures to assess achievement of desired outcomes. Program evaluations enable us to initiate actions to improve program performance. Evaluations are conducted internally by the FAA and by external groups such as contractors, academic institutions, the Office of the Inspector General, and the Government Accountability Office.

This past year, the FAA's Office of Security and Hazardous Materials Safety conducted an evaluation of each of its programs, building on efforts that started nearly two years ago.

In early 2017, the senior leadership team of the Office of Security and Hazardous Materials Safety assessed the results of a lengthy analysis that described the office's strengths and weaknesses, as well as the risks associated with increases in the office's workload and mission scope under a constrained budget. In response to the results of this analysis, the office transitioned from a geographically based organization to a more dispersed, but functionally aligned structure in October 2017. The realignment better positions the office to meet its mission and better prepares its security and hazardous materials safety programs for new emerging threats.

With the new functionally aligned structure in place, the office examined the success of 32 different programs in FY 2018. This activity provided a plan for improvements to process alignment, communications, the use of data for measuring performance and informed decision-making, and the independent validation of program reported data. FAA is now implementing this plan to improve transparency and accountability in the office's programs.

The Office of Security and Hazardous Materials Safety has also refined the scope of several program measurements, established baseline measures, validated measurement reliability, identified best practices, developed tools and resources to ensure standardization, and most importantly, expanded workforce discussions and engagement around performance throughout the organization. As a result of these efforts, the office's new performance framework has provided the path for an improved, measured approach in the delivery of products and services to FAA's partners and stakeholders.

Improving Financial Management

Cost-Effectiveness

The FAA's strategic plan includes an objective to improve the financial management of the agency while delivering quality customer service. Each fiscal year, FAA organizations determine annual savings estimates for cost saving activities. The target for the Cost Control program is set at 90% of the total savings estimate for the fiscal year for all activities included in the program. Monthly, the Cost Control program tracks and reports the actual cost savings for the activities included in the program. The FAA's efforts in this area are described below.

FY 2018 COST CONTROL PROGRAM RESULT
(Dollars in Thousands)

Activity	FY 2018 Savings Estimate	Actual FY 2018 Savings	FY 2018 Savings as a Percent of Estimate
National Wireless Program	$1,900	$2,491	131%
Worker's Compensation	$7,000	$6,672	95%
Administrative Space Reduction	$1,354	$947	70%
SAVES	$29,396	$41,641	142%
Lean Maintenance & Revalidation Program	$406	$166	41%
Voluntary Early Retirement Authority and Voluntary Separation Incentive Payments	$2,066	$2,897	140%
Reimbursable Tool Kit	$3,847	$3,847	100%
Total	$45,970	$55,855	112%
TARGET	**$41,373**		**135%**

National Wireless Program. This program manages the ever-growing mobile connected workforce and achieves cost savings by leveraging inventory volume and size of the contract. FY 2018 fiscal year savings for this activity were $2.49 million.

Workers' Compensation. The FAA has saved a total of $164 million in workers' compensation claims since FY 2005. Due to the FAA's success in this area, the DOT gave the FAA centralized responsibility for managing workers' compensation claims DOT-wide. In FY 2018, the FAA saved DOT $6.67 million in workers' compensation costs. The Office of Workers' Compensation Program mitigated costs by undertaking proactive and centralized management of injury claims, and through effective management of the Program. Cost avoidance is estimated as follows:

1. Short-term disability claims (disability < one year) — computed as compensation payments avoided from the date of return to work through the remaining balance of one year following the employee's date of injury.
2. Long-term disability claims (disability > one year) — computed as compensation payments avoided over the course of one full calendar year from the date of successful resolution (return to work, termination/reduction of benefits, etc.).
3. Questionable claims challenged by the FAA's Human Resource Management National Workers' Compensation Program Office and denied by the Department of Labor — computed as compensation payments avoided over the course of one full calendar year from the date of injury.

The savings computations for short-term disability claims are estimates. In determining the basis of the time period used for the estimate, we try to align with applicable regulations and other agencies. The Office of Personnel Management has regulations, which provide disabled employees with job retention rights if they recover and return to work within one year from the commencement of their disability. Also, the Department of Labor uses an internal goal of having disabled employees return to work within one year.

Administrative Space Reduction. The FAA is implementing and managing programs that drive the efficient and economical use of FAA's real property assets. Annually since FY 2014, the FAA has established a goal to achieve a square footage reduction in its administrative space portfolio by identifying and implementing space consolidation, relocation, and colocation initiatives. Due to delays, FY 2018 savings are $0.95 million with the remaining to be realized in FY 2019.

The Strategic Sourcing for the Acquisition of Various Equipment and Supplies (SAVES) Program. The SAVES program is an ambitious effort that began in FY 2006 to implement private sector best practices in the FAA's procurement of administrative supplies, equipment, IT hardware, commercial off the shelf software, and courier services. In FY 2018, the SAVES contracts achieved $42 million in cost savings, and a total savings of more than $355 million since program implementation in 2006. Below is the percentage contribution for each of the SAVES categories toward the FY 2018 savings:

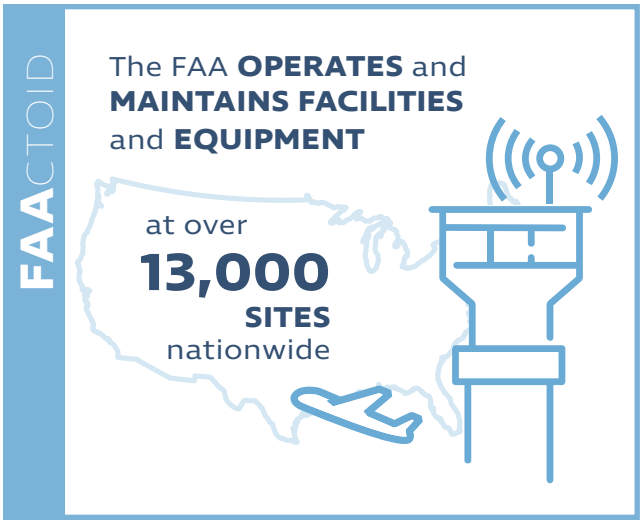
- 67 percent from IT commercial off-the-shelf software.

- 29 percent from IT hardware.
- 3 percent from office equipment.
- 1 percent from other.

Lean Maintenance & Revalidation Program. To sustain service and reduce costs, the FAA replaced certain older/obsolete antennas used in air traffic control and navigation with commercially available higher power, less costly antennas. The removed antennas and the associated antenna control units are sent back to the FAA's Logistics Center to be used as support parts for the remaining older systems. In FY 2018, this action saved $166 thousand.

Voluntary Early Retirement Authority and Voluntary Separation Incentive Payments: In FY 2018, the FAA provided incentives for retirement and/or separation to eligible employees. Savings were realized through abolished positions or backfilling these positions at a reduced experience/salary level. The FAA established the cost savings target based on the estimated reduction in personnel costs that would be experienced for the number of employees projected to accept the offer. In FY 2018, the actual costs exceeded the estimate because more employees accepted the offer than originally estimated.

Reimbursable Tool Kit. The FAA uses a proprietary workflow management tool for processing and tracking its reimbursable agreements with other federal agencies. The software licenses for this tool were scheduled to expire at the end of FY 2018. The targeted savings was for the cost of the licenses, which the FAA avoided paying by successfully replacing the system with an in-house solution.



Efficiency

In addition to cost control, each FAA organization develops, tracks, and reports quarterly on a comprehensive measure of its operating efficiency or financial performance.

Air Traffic Organization Cost per Operation. This cost-based metric provides a broad historic picture of the overall cost efficiency of air traffic control. The FAA regularly reviews its Air Traffic Organization's cost per operation to evaluate cost efficiency over the course of time and compare it with our international counterparts. The most recent cost per operation data available is for the fiscal years ending September 30, 2016 and 2017:

Air Traffic Organization Cost per Operation

2016	2017
$ 83.51	$ 83.84

In FY 2017, the Air Traffic Organization Cost per Operation increased slightly by 0.4 percent over FY 2016. This was driven by a one percent increase in Air Traffic Organization costs partially offset by a one percent increase in traffic.

Data for this metric is not yet available for the full fiscal year ending September 30, 2018; however, listed below are the Air Traffic Organization Cost per Operation Results for the first three quarters of FY 2017 and FY 2018, ending June 30:

Air Traffic Organization Cost per Operation

2017 Q3	2018 Q3
$ 89.93	$ 83.12

For the most recent partial period available, the first three quarters of FY 2018, the Air Traffic Organization Cost per Operation declined by eight percent over the same period a year earlier. This was driven by a 5.3 percent decrease in Air Traffic Organization costs and a 2.5 percent increase in traffic.

Overhead Rates. This metric provides insight into the cost effectiveness of overhead resources at the FAA. The resulting performance indicator informs management decisions concerning the allocation of general and administrative services and mission support services. The most recent overhead rate data available is for the fiscal years ending September 30, 2016 and 2017:

Overhead Rates

2016	2017
26.6%	27.1%

This is a composite overhead rate of all of the FAA's lines of business and staff offices.

Regulatory Cost per Launch/Reentry. This metric provides trend data for the average regulatory cost per launch or reentry of commercial space vehicles. This information is used to track how efficiently the FAA is interacting with the commercial space industry. Trend data are also reviewed to forecast human resource needs to regulate and support future launch and reentry operations.

Reduce the Footprint. As part of the federal government's commitment to increase efficiency, the Administration adopted an initiative in FY 2012 to avoid any increase to the total square footage of its domestic office and warehouse space, referred to as the "Freeze the Footprint" policy for federal real estate. In FY 2015, the initiative moved into its next phase, known as "Reduce the Footprint." Under this initiative, the FAA's office and warehouse space has decreased by 635 thousand square feet from FY 2015 to FY 2017, the latest year for which finalized results are available. The FAA continues to work to increase the efficiency of the real property portfolio through strategic portfolio planning reviews and implementation of space reduction projects. Additionally, the FAA partners with the DOT Office of the Secretary and the General Services Administration to identify and implement additional consolidation opportunities.

For more information on our Reduce the Footprint efforts, see pages 126–127.

Implementing Expense Controls

The FAA has improved its oversight of the acquisition process to help ensure that the agency is a responsible steward of the taxpayers' money. Enhanced processes and controls help us better manage resources and arrive at sounder business decisions in relation to our external contracts.

Procurements. In 2005, the FAA's Chief Financial Officer (CFO) was directed to exercise greater oversight and fiscal control over all agency procurements costing $10 million or more. Since that time, the Office of Financial Analysis has evaluated 794 procurement packages with an estimated total value of $94.6 billion. Since the process begun, the FAA has greatly improved its ability to better define program requirements, more accurately estimate costs, and substantiate those cost estimates. With these improvements, it has established proper controls and can manage contract resources more effectively. The FAA Acquisition Executive established an Acquisition Executive Board during FY 2009 to oversee acquisition policy. The Acquisition Executive Board is working to streamline and standardize the processes by which acquisitions are approved and managed. As part of this effort, a separate board, the Support Contract Review Board, was established to review and recommend Chief Financial Officer (CFO) approval or disapproval of any proposed support contract with a value of $10 million or more. This board is composed of executives from the CFO's office, the Office of Acquisition and Business Services, and the Office of the Chief Counsel. The board makes recommendations to the CFO for approval or disapproval of each large support contract.

Information Technology (IT). To better coordinate IT efforts, any IT-related spending in excess of $250,000 must be approved by the FAA's Chief Information Officer. This requirement ensures that IT investments are coordinated and consistent with the FAA's agency-wide IT strategy. The Information Technology Shared Services Committee serves as a forum to ensure effective, secure, and cost-efficient use of IT resources.

Conferences. In 2009, the CFO and FAA Acquisition Executive issued guidance requiring that all conferences estimated to cost $100,000 or more be approved by the CFO before funds may be committed. The FAA has continued to strengthen policies in this area. In 2010, the level of approval was elevated to the Administrator, and in 2012, it was elevated to the Deputy Secretary of the DOT. In FY 2017, the Deputy Secretary's approval threshold was revised from $100,000 to $500,000 consistent with OMB memorandum M-17-26 and reflective of strengthened internal controls over conference spending across government. Since 2012, the FAA Administrator took on the authority of approving all conferences held by the FAA costing more than $20,000.

Controllers at work in mobile tower in St. Thomas, U.S. Virgin Islands, after Hurricane Irma disabled the main tower at Cyril E. King International Airport.

Financial Results

A Message from the Chief Financial Officer

ALLISON W. RITMAN

When people think about the FAA, they generally think about the work of our air traffic controllers, who safely and effectively manage over 43,000 flights every day through the world's most complex airspace. At the same time we run these day to day operations, we also oversee the safety of airline operations and aircraft manufacturing; plan for and implement new technologies into planes, airports, and the air traffic control system; safely integrate new entrants into our airways; and award over $3 billion in grants each year to airports across the country.

All of these activities are represented in our financial statements. We publish our financial statements each year as part of our commitment to use taxpayer dollars responsibly and to be accountable to the American taxpayer. To live up to this commitment, I am proud to present our financial statements with a report from an independent auditor and a quality control review by the Department of Transportation's Inspector General. We present highlights of our financial statements on pages 23-29, which reflect the financial size and scope of the FAA's operations.

For FY 2018, the FAA received an unmodified audit opinion with no material weaknesses, and we maintained our track record of responsible financial management. Independent auditors have given us unmodified audit opinions for more than a dozen years. But that is not enough for us. We hold ourselves to a

> **Our most visible activity is effectively managing the world's most complex airspace.**

higher standard, so our performance goals include a target of obtaining an unmodified audit opinion with no material weaknesses in internal controls, as discussed on page 55.

After obtaining unmodified audit opinions with no material weaknesses for nine years in a row, last year our financial statements reflected a material weakness. It related to a change in our method of estimating environmental decommissioning liabilities, introducing an error into our FY 2017 third quarter unaudited financial statements. We have been transparent in our public disclosure about the material weakness and the immediate remediation we undertook to correct the deficiency before the end of last fiscal year. I am pleased to report that we have once again achieved our target of an unmodified opinion with no material weaknesses for FY 2018.

Finally, publishing our Performance and Accountability Report each year is part of the FAA's commitment to examining its performance and communicating the results. I am proud that the report has earned the FAA the prestigious Certificate of Excellence in Accountability Reporting (CEAR) award fourteen times, with seven special "best in class" CEAR awards since 2003.

Allison N. Ritman

ALLISON W. RITMAN
Acting Chief Financial Officer
November 9, 2018

Office of the Inspector General (OIG) Quality Control Review

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Independent Auditor's Report

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U.S. Department of Transportation Federal Aviation Administration

Management's Response to the FY 2018 Independent Auditors' Report

November 9, 2018

U.S. Department of Transportation
Federal Aviation Administration

Office of Financial Services

800 Independence Ave. S.W.
Washington, DC 20591

November 9, 2018

Ms. Hannah Padilla
KPMG LLP
1801 K Street, NW, Suite 1200
Washington, DC 20006

Dear Ms. Padilla,

We have received your Independent Auditors' Report related to the Federal Aviation Administration's fiscal year 2018 consolidated financial statements and offer the following response.

We appreciate working with you in support of an efficient and effective audit. The audit is an essential part of our fiscal responsibility to our citizens, which we take very seriously.

We concur with the three findings in your report identifying improvements needed in the areas of (1) general information technology controls pertaining to the core accounting system, Delphi; (2) inventory shop order and held for repair unit cost calculation reviews; and, (3) capitalizing Research, Engineering and Development (RE&D) costs when projects progress beyond the preliminary design stage.

To address these weaknesses, we will (1) work with our shared services provider, the Enterprise Services Center, to ensure that general information technology controls pertaining to the core accounting system, Delphi, are appropriately strengthened; (2) improve procedures and controls surrounding inventory shop order and held for repair unit cost calculation reviews; and, (3) improve controls to ensure that RE&D costs are properly capitalized.

I will request that the Enterprise Services Center prepare a corrective action plan to address the first weakness. The Office of Financial Services will develop a corrective action plan to address the other two weaknesses. We will provide those plans to you by December 31, 2018, and I will monitor implementation of the plans throughout the corrective action process.

Thank you for your candor and the professional manner in which you and your team conducted your audit.

Sincerely,

Allison W. Ritman
Acting Chief Financial Officer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CONSOLIDATED BALANCE SHEETS

As of September 30
(Dollars in Thousands)

	2018	2017
ASSETS		
Intragovernmental		
Fund balance with Treasury (Note 2)	$ 4,905,776	$ 3,469,614
Investments, net (Note 3)	16,525,203	15,671,840
Accounts receivable, prepayments, and other (Note 4)	184,999	217,717
Total intragovernmental	21,615,978	19,359,171
Accounts receivable, prepayments, and other, net (Note 4)	48,184	52,069
Inventory, operating materials, and supplies, net (Note 5)	730,524	710,839
Property, plant, and equipment, net (Note 6 and 9)	12,254,568	12,641,781
Total assets	$ 34,649,254	$ 32,763,860
LIABILITIES		
Intragovernmental liabilities		
Accounts payable	$ 31,889	$ 17,604
Employee related and other (Note 8)	476,792	468,269
Total intragovernmental liabilities	508,681	485,873
Accounts payable	478,481	504,682
Grants payable	695,106	716,428
Environmental (Note 7, 15, and 16)	945,968	1,047,940
Employee related and other (Note 8, 9, and 16)	965,106	956,573
Federal employee benefits (Note 10)	806,679	818,732
Total liabilities	4,400,021	4,530,228
Commitments and contingencies (Note 9 and 16)		
NET POSITION		
Unexpended appropriations		
Unexpended appropriations – funds from dedicated collections (combined) (Note 12)	1,085,256	965,149
Cumulative results of operations		
Cumulative results of operations – funds from dedicated collections (combined) (Note 12)	18,205,192	16,702,372
Cumulative results of operations – all other funds (combined)	10,958,785	10,566,111
Total net position	30,249,233	28,233,632
Total liabilities and net position	$ 34,649,254	$ 32,763,860

The accompanying notes are an integral part of these financial statements.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

CONSOLIDATED STATEMENTS OF NET COST

For the Years Ended September 30

(Dollars in Thousands)

	2018	2017
LINE OF BUSINESS PROGRAMS (Note 11)		
Air Traffic Organization		
Expenses	$ 11,630,584	$ 11,648,610
Less earned revenues	(288,585)	(260,851)
Net cost	11,341,999	11,387,759
Airports		
Expenses	3,166,777	3,285,443
Net cost	3,166,777	3,285,443
Aviation Safety		
Expenses	1,517,240	1,514,572
Less earned revenues	(17,038)	(18,743)
Net cost	1,500,202	1,495,829
Security and Hazardous Materials Safety		
Expenses	134,569	126,394
Less earned revenues	(708)	(26,810)
Net cost	133,861	99,584
Commercial Space Transportation		
Expenses	23,142	23,300
Net cost	23,142	23,300
NON-LINE OF BUSINESS PROGRAMS		
Expenses	730,742	696,964
Less earned revenues	(301,504)	(262,176)
Net cost	429,238	434,788
NET COST OF OPERATIONS		
Total expenses	17,203,054	17,295,283
Less earned revenues	(607,835)	(568,580)
Total net cost	$ 16,595,219	$ 16,726,703

The accompanying notes are an integral part of these financial statements.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

CONSOLIDATED STATEMENTS OF CHANGES IN NET POSITION

For the Years Ended September 30

(Dollars in Thousands)

UNEXPENDED APPROPRIATIONS

	2018			2017		
	Funds from dedicated collections (combined) (Note 12)	All other funds (combined)	Consolidated total	Funds from dedicated collections (combined) (Note 12)	All other funds (combined)	Consolidated total
Beginning balances	$ 965,149	$ –	$ 965,149	$ 1,181,726	$ –	$ 1,181,726
Budgetary financing sources						
Appropriations received (Note 14)	1,360,754	1,000,000	2,360,754	852,852	–	852,852
Rescissions, cancellations and other	(23,686)	–	(23,686)	(35,414)	–	(35,414)
Appropriations used	(1,216,961)	(1,000,000)	(2,216,961)	(1,034,015)	–	(1,034,015)
Total budgetary financing sources	120,107	–	120,107	(216,577)	–	(216,577)
Ending balances	$ 1,085,256	$ –	$ 1,085,256	$ 965,149	$ –	$ 965,149

CUMULATIVE RESULTS OF OPERATIONS

	2018			2017		
	Funds from dedicated collections (combined) (Note 12)	All other funds (combined)	Consolidated total	Funds from dedicated collections (combined) (Note 12)	All other funds (combined)	Consolidated total
Beginning balances	$ 16,702,372	$ 10,566,111	$ 27,268,483	$ 16,377,982	$ 11,139,419	$ 27,517,401
Budgetary financing sources						
Appropriations used	1,216,961	1,000,000	2,216,961	1,034,015	–	1,034,015
Non-exchange revenue – excise taxes and other	16,129,404	–	16,129,404	15,362,658	–	15,362,658
Transfers-in/out without reimbursement	(297,341)	–	(297,341)	(261,348)	–	(261,348)
Other financing sources						
Donations and forfeitures of property	–	36,568	36,568	–	15,691	15,691
Transfers-in/out without reimbursement	(1,031,300)	1,032,824	1,524	(1,101,806)	1,110,817	9,011
Imputed financing from costs absorbed by others (Note 13)	334,505	65,917	400,422	255,073	62,471	317,544
Other	97	3,078	3,175	214	–	214
Total financing sources	16,352,326	2,138,387	18,490,713	15,288,806	1,188,979	16,477,785
Net cost of operations	14,849,506	1,745,713	16,595,219	14,964,416	1,762,287	16,726,703
Net change	1,502,820	392,674	1,895,494	324,390	(573,308)	(248,918)
Ending balances	$ 18,205,192	$ 10,958,785	$ 29,163,977	$ 16,702,372	$ 10,566,111	$ 27,268,483

The accompanying notes are an integral part of these financial statements.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

COMBINED STATEMENTS OF BUDGETARY RESOURCES

For the Years Ended September 30

(Dollars in Thousands)

	2018	2017
BUDGETARY RESOURCES (Note 14)		
Unobligated balance from prior year budget authority, net	$ 4,545,634	$ 4,280,673
Appropriations	15,775,415	13,064,322
Contract authority	3,350,000	3,350,000
Spending authority from offsetting collections	9,681,311	10,001,910
Total budgetary resources	$ 33,352,360	$ 30,696,905
Memorandum entries:		
Net adjustments to unobligated balance brought forward, October 1	276,111	342,343
STATUS OF BUDGETARY RESOURCES		
New obligations and upward adjustments	$ 27,586,029	$ 26,427,382
Unobligated balance, end of year		
Apportioned, unexpired accounts	3,379,391	1,943,301
Unapportioned, unexpired accounts	2,237,279	2,188,530
Unexpired unobligated balance, end of year	5,616,670	4,131,831
Expired unobligated balance, end of year	149,661	137,692
Unobligated balance, end of year (total)	5,766,331	4,269,523
Total budgetary resources	$ 33,352,360	$ 30,696,905
OUTLAYS, NET		
Outlays, net (total)	$ 16,999,008	$ 15,866,273
Distributed offsetting receipts	(1,009,081)	(13,286)
Agency outlays, net	$ 15,989,927	$ 15,852,987

The accompanying notes are an integral part of these financial statements.

Notes to the Financial Statements

NOTE 1. Summary of Significant Accounting Policies

A. Reporting Entity

Created in 1958, the FAA is a component of the DOT, a cabinet-level agency of the executive branch of the federal government. The FAA's mission is to provide a safe, secure, and efficient global aerospace system that contributes to national security and 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.

Congress annually enacts appropriations to permit the FAA to incur obligations for specified purposes. In FY 2018 and 2017, the FAA was accountable for amounts made available per appropriations laws, from the Airport and Airway Trust Fund (AATF), revolving funds, a special fund, and the general fund. The FAA recognizes budgetary resources as assets when authorized by congressional action and apportioned by the OMB.

The FAA has contract authority, which allows the agency to enter into contracts prior to receiving an appropriation for the payment of obligations. A subsequently enacted appropriation provides funding to liquidate the obligations. Current contract authority is provided for the Airport Improvement Program (AIP) and funded by appropriations from the AATF.

The FAA also has spending authority from offsetting collections primarily from a non-expenditure transfer from the AATF for Operations funding. The balance of the spending authority from offsetting collections comes from other federal agencies which fund reimbursable activities performed by the FAA on their behalf.

The consolidated and combined financial statements present the accounts of all funds that have been established and maintained to account for the resources under the FAA's control. The FAA has rights and ownership of all assets reported in these financial statements. The FAA does not possess any non-entity assets.

The reporting entity is comprised of FAA's lines of business and staff offices. For additional information, see FAA Organization on page 8.

The Federal Accounting Standards Advisory Board issued Statement of Federal Financial Accounting Standards 47, *Reporting Entity*, in December 2014, which is effective beginning in FY 2018. FAA is the sponsor of the Center for Advanced Aviation System Development (CAASD), a Federally Funded Research and Development Center (FFRDC). CAASD is a disclosure entity, which is not a consolidated entity. While the FAA's financial statements include its spending for studies it contracts with CAASD, the financial statements of the FAA do not include the financial results or position of CAASD. Additional information on FAA's relationship with CAASD is presented in Note 16.

B. Basis of Presentation

The financial statements have been prepared to report the financial position, net cost of operations, changes in net position, and status and availability of budgetary resources of the FAA. The statements are a requirement of the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994. They have been prepared from, and are fully supported by, the books and records of the FAA in accordance with (1) the hierarchy of accounting principles generally accepted in the United States of America and standards approved by the principals of the Federal Accounting Standards Advisory Board, (2) Office of Management and Budget (OMB) Circular No. A-136, as revised, *Financial Reporting Requirements*, and (3) Department of Transportation (DOT) and the FAA significant accounting policies, the latter of which are summarized in this note. These statements, with the exception of the Statement of Budgetary Resources, are different from financial management reports, which are also prepared pursuant to OMB directives that are used to monitor and control the FAA's use of budgetary resources. The statements are subjected to audit, as required by OMB Bulletin No. 19-01, *Audit Requirements for Federal Financial Statements*.

Unless specified otherwise, all dollar amounts are presented in thousands.

C. Basis of Accounting

Transactions are recorded on both an accrual accounting basis and a budgetary accounting basis. Under the accrual

method, revenues are recognized when earned, and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. Budgetary accounting facilitates compliance with legal requirements on the use of federal funds. All material intra-agency transactions and balances have been eliminated for presentation on a consolidated basis. Intra-agency activity reported in funds from dedicated collections is often offset with activity in other funds. Funds from dedicated collections and all other funds, presented separately in the Balance Sheets and Statements of Changes in Net Position, are presented on a combined basis. The Statement of Budgetary Resources is presented on a combined basis, in accordance with OMB Circular No. A-136.

D. Revenues and Other Financing Sources

Congress enacts annual, multi-year, and no-year appropriations to be used, within statutory limits, for operating, capital, and grant expenditures. Additional amounts are obtained from service fees (e.g., landing, registry, and aviation user fees), and through reimbursements for products and services provided to domestic and foreign governmental entities.

The AATF is sustained by excise taxes that the IRS collects from airway system users. Excise taxes collected are initially deposited to the General Fund of the U.S. Treasury. The IRS does not receive sufficient information at the time the excise taxes are collected to determine how they should be distributed to specific funds from dedicated collections. Therefore, the U.S. Treasury makes initial semi-monthly distributions to the AATF based on allocations prepared by its Office of Tax Analysis (OTA). These allocations are based on historical excise tax data applied to current excise tax receipts and later adjusted to agree to actual collections when certified by the IRS.

The FAA's September 30, 2018 financial statements reflect excise taxes certified by the IRS through June 30, 2018, and excise taxes allocated by the OTA for the period July 1 through September 30, 2018, as specified by Statement of Federal Financial Accounting Standards Number 7, *Accounting for Revenue and Other Financing Sources*. Actual excise tax collections data for the quarter ended September 30, 2018, will not be available from the IRS until February 2019. When actual amounts are certified by the IRS, generally four to five months after the end of each quarter, adjustments are made to the AATF to account for the difference. Additional information on this subject is disclosed in Note 12.

The AATF also earns interest from investments in U.S. Government securities. Interest income on investments is recognized as revenue on an accrual basis.

Appropriations are recognized as a financing source when expended. Revenues from services provided by the FAA associated with reimbursable agreements are recognized concurrently with the recognition of accrued expenditures for performing the services. Aviation overflight user fees are recognized as revenue in the period in which the flights take place.

The FAA recognizes, as an imputed financing source, the amount of accrued pension and post-retirement benefit expenses for current employees paid on the FAA's behalf by the Office of Personnel Management (OPM), as well as amounts paid from the U.S. Treasury Judgment Fund in settlement of claims or court assessments against the FAA. The FAA also recognizes, as an imputed financing source, security services provided by the Department of Homeland Security on FAA's behalf through their Continuous Diagnostic and Mitigation program. The program is in support of the government-wide focus on heightened cyber security.

E. Taxes

The FAA, as a federal entity, is not subject to federal, state, or local income taxes and, accordingly, does not record a provision for income taxes in the accompanying financial statements.

F. Fund Balance with the U.S. Treasury

The U.S. Treasury processes cash receipts and disbursements. Funds held at the Treasury are available to pay agency liabilities. The FAA does not maintain cash in commercial bank accounts or foreign currency balances. Foreign currency payments are made either by the U.S. Treasury or the U.S. Department of State and are reported by the FAA in the U.S. dollar equivalent.

G. Investment in U.S. Government Securities

Unexpended funds in the AATF and Aviation Insurance Revolving Fund are invested in U.S. Government securities and reported at cost. A portion of the AATF investments is liquidated monthly in amounts needed to provide cash for the FAA appropriation accounts, to the extent authorized. Aviation Insurance Revolving Fund investments are intended to be held to maturity, but may be liquidated to pay insurance claims when necessary. Investments, redemptions, and reinvestments are held and managed under the direction of the FAA by the U.S. Treasury.

H. Accounts Receivable

Accounts receivable consists of amounts owed to the FAA by other federal agencies and the public. Amounts due from

federal agencies are considered fully collectible. Accounts receivable from the public include, for example, aviation user fees, fines and penalties, reimbursements from employees, and services performed for foreign governments. An allowance for loss on uncollectible amounts due from the public is established based on historical collection experience or an analysis of the individual receivables.

I. Inventory

Within the FAA's Franchise Fund, inventory is held for sale to the FAA field locations and other domestic entities and foreign governments. Inventory consists of materials and supplies that the FAA uses to support our nation's airspace system and is predominantly located at the FAA Mike Monroney Aeronautical Center in Oklahoma City. Inventory costs include material, labor, and applicable manufacturing overhead.

Inventory held for sale includes both purchased inventory and refurbished inventory. Inventory held for sale is valued using historical cost, applying the weighted moving average cost flow method.

The FAA has an exchange and repair program where the FAA field locations exchange non-operational components with the Franchise Fund for operational components. The non-operational repairable components are classified as "held for repair" and valued using the direct method. Under the direct method, inventory held for repair is valued at the same value as a serviceable item less the estimated repair costs.

Raw materials and work in progress is comprised of repairable inventory components, the materials used to bring the components to a re-useable or serviceable condition along with the labor and overhead incurred during the refurbishing process. When the refurbishing process is complete, the inventory components are reclassified to "held for sale." Raw materials are valued using historical cost, applying the weighted moving average cost flow method. The repairable components, reported as work in progress, are valued at the same value as a serviceable item less the estimated repair costs at the time of transfer from the "held for repair" account to the work in progress account.

Inventory may be deemed to be "excess, obsolete, and unserviceable" if, for example, the quantity exceeds projected demand for the foreseeable future or if the item has been technologically surpassed. The "excess, obsolete, and unserviceable" inventory is determined to have no residual net realizable value, therefore, a loss is recognized to write off the inventory in the current period.

J. Operating Materials and Supplies

Operating materials and supplies primarily consist of unissued materials and supplies that will be used in the repair and maintenance of FAA owned aircraft. They are valued based on the weighted moving average cost method or on the basis of actual prices paid. Operating materials and supplies are expensed using the consumption method of accounting.

Operating materials and supplies "held for use" are those items that are consumed on a regular and ongoing basis. Operating materials and supplies "held for repair" are awaiting service to restore their condition to "held for use." An allowance of 50 percent has been established for operating materials and supplies "held for repair" based on historical experience.

Operating materials and supplies may be classified as "excess, obsolete, and unserviceable" if, for example, the quantity exceeds projected demand for the foreseeable future or if the item has been technologically surpassed. An allowance is established for "excess, obsolete, and unserviceable" operating materials and supplies based on the condition of various asset categories as well as the FAA's historical experience with disposing of such assets.

K. Property, Plant and Equipment

The FAA capitalizes acquisitions of Property, Plant & Equipment (PP&E) when the cost equals or exceeds $100 thousand (except for internal use software, for which the threshold is $200 thousand) and the useful life equals or exceeds two years. The FAA records PP&E at original acquisition cost. However, where applicable, the FAA allocates an average cost of like assets within a program, commonly referred to as "unit costing." The FAA purchases some capital assets in large quantities, which are known as "bulk purchases." If the cost per unit is below the capitalization threshold of the FAA, then these items are expensed.

Depreciation expense is calculated using the straight-line method. Depreciation commences the first month after the asset is placed in service. The FAA does not recognize residual value of its PP&E.

Real property assets, such as buildings, air traffic control towers, en route air traffic control centers, mobile buildings, roads, sidewalks, parking lots, and other structures, are depreciated over a useful life of up to 40 years.

Personal property assets, such as aircraft, decision support systems, navigation-, surveillance-, communications- and weather-related equipment, office furniture, vehicles, and office equipment, are depreciated over a useful life of up to 20 years.

Internal use software, such as software used to operate programmatic and administrative information systems, is generally amortized over a useful life of five years. However, it may be adjusted if a determination is made by specific program office and/or subject matter experts to have a longer or shorter useful life (not less than two years).

Construction in progress and internal use software in development are valued at actual direct costs plus applied overhead and other indirect costs.

The FAA researches and develops new technologies to support the nation's airspace system. Until such time as a research and development project reaches "technological feasibility," the costs associated with the project are expensed in the year incurred.

L. Leases

The FAA occupies certain real property that is leased by the DOT from the General Services Administration (GSA). The FAA also has non-GSA leases. Payments made by the FAA are based on contractual agreements. Future payments are disclosed for both cancellable and non-cancellable operating leases, but not disclosed separately since most lease agreements are either cancellable or contain termination rights.

Capital leases for buildings and equipment are amortized over the lease term. If the lease agreement contains a bargain purchase option or otherwise provides for transferring title of the asset to the FAA, the buildings are depreciated over a 40-year service life and the equipment is depreciated over its estimated useful life.

M. Prepaid Charges

The FAA generally does not pay for goods and services in advance, except for certain reimbursable agreements, subscriptions, and payments to contractors and employees. Payments made in advance of the receipt of goods and services are recorded as prepaid charges at the time of prepayment and recognized as expenses when the related goods and services are received.

N. Liabilities

Liabilities covered by budgetary or other resources are those liabilities for which Congress has appropriated funds, and which are otherwise available to pay amounts due. Liabilities not covered by budgetary or other resources represent amounts owed in excess of available, congressionally appropriated funds or other amounts. The liquidation of liabilities not covered by budgetary or other resources is dependent on future congressional appropriations or other funding, including the AATF. Intragovernmental liabilities are claims against the FAA by other federal agencies.

O. Accounts Payable

Accounts payable are amounts that the FAA owes to other federal agencies and the public. Accounts payable to federal agencies generally consist of amounts due under interagency reimbursable agreements. Accounts payable to the public primarily consist of unpaid goods and services received by the FAA in support of our nation's airspace system.

P. Annual, Sick, and Other Leave

Annual leave is accrued as it is earned and the accrual is reduced as leave is taken. For each biweekly pay period, the balance in the accrued annual leave account is adjusted to reflect the latest pay rates and unused hours of leave. Liabilities associated with other types of vested leave, including compensatory, credit hours, restored leave, and sick leave in certain circumstances, are accrued based on latest pay rates and unused hours of leave. Sick leave is generally non-vested, except for sick leave balances at retirement under the terms of certain union agreements. Funding will be obtained from future financing sources to the extent that current or prior year appropriations are not available to fund annual and other types of vested leave earned but not taken. Non-vested leave is expensed when used.

Q. Workers' Compensation

The Federal Employees Compensation Act (FECA) (Public Law 103-3) provides income and medical cost protection to covered federal civilian employees injured on the job, to employees who have incurred work-related occupational diseases, and to beneficiaries of employees whose deaths are attributable to job-related injuries or occupational diseases. The FECA program is administered by the Department of Labor (DOL), which pays valid claims and subsequently seeks reimbursement from the FAA for these paid claims.

The FECA liability consists of two elements. The first element, accrued FECA liability, is based on workers' compensation claims paid by DOL but not yet reimbursed by the FAA. The FAA reimburses DOL for claims as funds are appropriated for this purpose. In general, there is a two-year period between payment by DOL and reimbursement to DOL by the FAA. As a result, the FAA recognizes an intragovernmental liability for the claims paid by DOL and not yet reimbursed by the FAA.

The second element, actuarial FECA liability, is the estimated liability for future benefit payments and is recorded as federal employee benefits payable. The actuarial FECA liability

includes the expected liability for death, disability, medical, and miscellaneous costs for approved compensation cases. DOL determines the actuarial FECA liability annually, as of September 30, using an actuarial method that considers historical benefit payment patterns, wage inflation factors, medical inflation factors, and other variables. The projected annual benefit payments are discounted to present value using the OMB economic assumptions for 10-year Treasury notes and bonds. The actuarial FECA liability is not covered by budgetary resources and will require future funding.

For additional information regarding accrued FECA liability, see Note 8, Employee Related and Other Liabilities and Note 10, Federal Employee Benefits Payable.

R. Retirement Plan

FAA employees participate in either the Civil Service Retirement System (CSRS) or the Federal Employees Retirement System (FERS). The employees who participate in the CSRS contribute 7 percent of their pay and are beneficiaries of the FAA's matching contribution program, equal to 7 percent of pay, distributed to their annuity account in the Civil Service Retirement and Disability Fund.

FERS went into effect on January 1, 1987. FERS and Social Security automatically cover most employees hired after December 31, 1983. Employees hired prior to January 1, 1984 could elect either to join FERS and Social Security or to remain in CSRS. FERS offers a savings plan to which the FAA automatically contributes 1 percent of pay and matches any employee contribution up to an additional 4 percent of pay. For FERS participants, the FAA also contributes the employer's matching share for Social Security. The FAA's matching contributions are recognized as operating expenses.

The FAA recognizes the full cost of pensions and other retirement benefits during an employee's active years of service. The costs are covered through a combination of FAA appropriations and imputed costs. The imputed amount is calculated using the OPM's cost factors and is the difference between FAA/employee contributions during the year and the total cost of the benefit. OPM actuaries determine pension cost factors by calculating the value of pension benefits expected to be paid in the future and communicate these factors to the FAA. The OPM also provides information regarding the full cost of health and life insurance benefits. The imputed costs are completely offset with other financing sources, which are reported as an imputed financing source on the Consolidated Statements of Changes in Net Position to the extent that these costs will be paid by the OPM. Reporting of the assets and liabilities associated with the retirement plans is the responsibility of the administering agency, OPM. Therefore, the FAA does not report CSRS or FERS assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to employees.

S. Grants

The FAA records an obligation at the time a grant is awarded. As grant recipients conduct eligible activities under the terms of their grant agreement, they request payment by the FAA, typically made via an electronic payment process. Expenses are recorded at the time of payment approval during the year. The FAA also recognizes an accrued liability and expense for estimated eligible grant payments not yet requested by grant recipients. Grant expenses, including associated administrative costs, are classified on the Consolidated Statements of Net Cost under the Airports line of business.

T. Use of Estimates

Management has made certain estimates and assumptions when reporting assets, liabilities, revenues, and expenses, and in the note disclosures. Actual results could differ from these estimates. Significant estimates underlying the accompanying financial statements include (a) legal, environmental, and contingent liabilities; (b) accruals of accounts and grants payable; (c) accrued workers' compensation; (d) allowance for doubtful accounts receivable; (e) allowances for operating materials and supplies; (f) allocations of common costs to construction in progress, (g) the allocation of an average cost of like property, plant, and equipment within a program, commonly referred to as unit costing; and (h) accrued benefits and benefits payable.

U. Environmental Liabilities

In compliance with applicable laws and regulations including the Clean Air Act of 1963, the Resource Conservation and Recovery Act of 1976, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986 and the Community Environmental Response Facilitation Act of 1992, the FAA recognizes two types of environmental liabilities: environmental remediation, and cleanup and decommissioning. The liability for environmental remediation is an estimate of costs necessary to bring a known contaminated site into compliance with applicable environmental standards. The increase or decrease in the annual liability is charged to current year expense.

Environmental cleanup and decommissioning is the estimated cost that will be incurred to remove, contain, and/or dispose of hazardous materials when an asset presently in service is shutdown. The FAA estimates the environmental cleanup and

decommissioning costs at the time that an FAA-owned asset is placed in service. For assets placed in service through FY 1998, the increase or decrease in the estimated environmental cleanup liability is charged to expense. Assets placed in service in FY 1999 and after do not contain any known hazardous materials, and therefore do not have associated environmental liabilities.

There are no known possible changes to these estimates based on inflation, deflation, technology or applicable laws and regulations.

V. Contingencies

A contingent liability represents a potential cost to the FAA depending on the outcome of future events. Three categories of contingent liabilities — probable, reasonably possible, and remote — determine the appropriate accounting treatment. The FAA recognizes contingent liabilities, in the accompanying balance sheet and statement of net cost, when they are both probable and can be reasonably estimated. The FAA discloses contingent liabilities in the notes to the financial statements (see Note 16) when the conditions for liability recognition are not met but are reasonably possible. Contingent liabilities that are considered remote are not disclosed.

In some cases, once losses are certain, payments may be made from the Judgment Fund maintained by the U.S. Treasury rather than from the amounts appropriated to the FAA for agency operations. Payments from the Judgment Fund are recorded as "Other Financing Sources" when made.

W. Funds from Dedicated Collections

The FAA's financial statements include the following funds, considered to be "funds from dedicated collections":

- AATF
- Operations-AATF
- Operations-General Fund
- Grants-in-Aid for Airports-AATF
- Facilities and Equipment
- Research, Engineering, and Development
- Aviation Insurance Fund
- Aviation User Fees

Funds from dedicated collections are those that are financed by specifically identified revenues and financing sources which remain available over time. They are required by statute to be used for designated activities, benefits, or purposes and must be accounted for separately from the government's general revenues.

The AATF is funded by excise taxes that the IRS collects from airway system users. These receipts are unavailable until appropriated by the U.S. Congress. Once appropriated for use, the FAA transfers the AATF receipts necessary to meet cash disbursement needs to several other funds, from which expenditures are made. Those funds that receive transfers from the AATF are the Operations-AATF, Grants-in-Aid for Airports, Facilities and Equipment, and Research, Engineering and Development. These funds represent the majority of the FAA annual expenditures.

In addition, while the Operations-General Fund is primarily funded through transfers from Operations-AATF, it is also supplemented by funding from the General Fund of the U.S. Treasury through annual appropriations. Because the Operations-General Fund is primarily funded from the AATF, and because it is not reasonably possible to differentiate cash balances between those originally flowing from the AATF versus those that come from general fund appropriations, the Operations-General Fund is presented as funds from dedicated collections. The funds from dedicated collections in the Facilities and Equipment fund are used to purchase or construct PP&E. When PP&E has been placed in service, the funds from dedicated collections are no longer available for future expenditure, have been used for their intended purpose, and are therefore classified as "other funds" on the balance sheet and the statement of changes in net position. Construction in progress is classified as "funds from dedicated collections" because although the funds have been expended, they have not yet fully achieved their intended purpose. The intended result of this presentation is to differentiate between funds from dedicated collections that remain available for future expenditure, or have not yet fully achieved their designated purpose, and funds from dedicated collections previously expended that have achieved their intended purpose.

Additional disclosures concerning funds from dedicated collections can be found in Note 12.

X. Reclassifications

Certain prior year amounts have been reclassified for consistency with the current year presentation.

Specifically, due to significant revisions in OMB Circular A-136 *Financial Reporting Requirements* in FY 2018, the Statement of Budgetary Resources and certain notes to the consolidated financial statements have been reclassified to conform to changes in reporting requirements.

NOTE 2. Fund Balance with Treasury

Status of fund balance with Treasury (FBWT) balances as of September 30, 2018 and 2017 were:

Status of fund balance with Treasury	**2018**	**2017**
Unobligated balance		
Available	$ 3,379,391	$ 1,943,301
Not available	2,386,940	2,326,222
Obligated balance not yet disbursed	9,847,021	9,266,377
Investments and Contract Authority supporting obligated and unobligated balances	(10,719,261)	(10,076,667)
Non-budgetary FBWT	11,685	10,381
Total	$ 4,905,776	$ 3,469,614

Unobligated budgetary account balances are also reflected on the Statement of Budgetary Resources. Certain unobligated balances may be restricted to future use and are not available for current use. For additional information see Legal Arrangements Affecting the Use of Unobligated Balances in Note 14.

Obligated balances not yet disbursed include unpaid obligations offset by uncollected customer payments from other U.S. federal government entities.

The FAA is funded with appropriations from the AATF and the General Fund of the Treasury. While amounts appropriated from the General Fund of the Treasury are included in fund balance with Treasury, AATF investments are not. AATF investments are redeemed, as needed, to meet FAA's cash disbursement needs, at which time the funds are transferred into fund balance with Treasury. The FAA also receives contract authority which allows obligations to be incurred in advance of an appropriation. The contract authority is subsequently funded, as authorized, from the AATF allowing for the liquidation of the related obligations. Thus, investments and contract authority are not part of fund balance with Treasury; however, their balances will be transferred from the AATF to fund balance with Treasury over time to liquidate obligated balances and unobligated balances as they become obligated, and thus are necessarily included in the Status of fund balance with Treasury.

NOTE 3. Investments

As of September 30, 2018 and 2017, the FAA's investment balances were as follows:

	2018			
Intragovernmental Securities	Cost	Unamortized Premium/ (Amortized Discount)	Investments (Net)	Market Value Disclosure
Nonmarketable par value	$ 14,212,218	$ –	$ 14,212,218	$ 14,212,218
Nonmarketable market-based	2,249,669	(11,678)	2,237,991	2,211,995
Subtotal	16,461,887	(11,678)	16,450,209	16,424,213
Accrued interest	74,994	–	74,994	–
Total intragovernmental securities	$ 16,536,881	$ (11,678)	$ 16,525,203	$ 16,424,213

	2017			
Intragovernmental Securities	Cost	Unamortized Premium/ (Amortized Discount)	Investments (Net)	Market Value Disclosure
Nonmarketable par value	$ 13,404,154	$ –	$ 13,404,154	$ 13,404,154
Nonmarketable market-based	2,209,819	(6,154)	2,203,665	2,198,284
Subtotal	15,613,973	(6,154)	15,607,819	15,602,438
Accrued interest	64,021	–	64,021	–
Total intragovernmental securities	$ 15,677,994	$ (6,154)	$ 15,671,840	$ 15,602,438

The Secretary of the Treasury invests AATF funds on behalf of the FAA. The FAA investments are considered investment authority and are available to offset the cost of operations to the extent authorized by Congress. As of September 30, 2018 and 2017, $14.2 billion and $13.4 billion were invested respectively in U.S. Treasury Certificates of Indebtedness. Nonmarketable par value Treasury Certificates of Indebtedness are special series debt securities issued by the U.S. Treasury's Bureau of the Fiscal Service to federal accounts, and are purchased and redeemed at par (face value) exclusively through the Federal Investment Branch of the U.S. Treasury's Bureau of the Fiscal Service. The securities are held to maturity and redeemed at face value on demand; thus, investing entities recover the full amount invested plus interest. Investments as of September 30, 2018, mature on various dates through June 30, 2019, and investments as of September 30, 2017, matured on various dates through June 30, 2018. The annual rate of return on Certificates of Indebtedness is established in the month of issuance. The average rate of return for certificates issued during FY 2018 and FY 2017 was 2.25 percent and 2.0 percent, respectively.

Nonmarketable, market-based Treasury securities are debt securities that the Treasury issues to federal entities without statutorily fixed interest rates. Although the securities are not marketable, their terms (prices and interest rates) mirror the terms of marketable Treasury securities. The FAA invests Aviation Insurance Fund collections in nonmarketable market-based securities and amortizes premiums and discounts over the life of the security using the interest method. As of September 30, 2018, these nonmarketable, market-based securities have maturity dates ranging from November 15, 2018 to January 31, 2023 and have an average rate of return of approximately 1.2 percent. As of September 30, 2017, these nonmarketable, market-based securities had maturity dates ranging from November 15, 2017 to January 31, 2023 and had an average rate of return of approximately 1.5 percent.

The U.S. Treasury does not set aside assets to pay the future expenditures of the AATF and the Aviation Insurance Fund (i.e., dedicated collections). Instead, the cash collected from the public for the AATF and the Aviation Insurance Fund is deposited in the U.S. Treasury, and used for general government purposes. Treasury securities are issued to the FAA as evidence of the collections by the AATF and the Aviation Insurance Fund. Treasury securities are an asset to the FAA and a liability to the U.S. Treasury. Because the FAA and the U.S. Treasury are both parts of the federal government, these assets and liabilities offset each other from the standpoint of the federal government as a whole. For this reason, they do not represent an asset or a liability in the government-wide financial statements.

To the extent authorized by law, the FAA has the ability to redeem its Treasury securities to make expenditures. When the FAA redeems these securities, the federal government finances those expenditures from accumulated cash balances by raising tax or other receipts, borrowing from the public, repaying less debt, or curtailing other expenditures. This is the same manner in which the federal government finances all other expenditures.

NOTE 4. Accounts Receivable, Prepayments, and Other Assets

Intragovernmental prepayments represent advance payments to other federal government entities for agency expenses not yet incurred or for goods or services not yet received. Accounts receivable from the public is shown net of an allowance for uncollectible accounts, which is based on historical collection experience or an analysis of the individual receivables. As of September 30, 2018 and 2017, accounts receivable, prepayments, and other assets were:

Intragovernmental		**2018**		**2017**
Accounts receivable	$	45,567	$	26,367
Prepayments and other		139,432		191,350
Intragovernmental total		184,999		217,717
With the public				
Accounts receivable, gross		52,387		60,689
Allowance for uncollectible amounts		(5,811)		(9,299)
Accounts receivable, net		46,576		51,390
Prepayments		1,580		608
Other assets		28		71
With the public total		48,184		52,069
Total accounts receivable, prepayments, and other	$	233,183	$	269,786

NOTE 5. Inventory, Operating Materials, and Supplies

Inventory is classified as either held for sale, held for repair, or raw materials and work in progress. Collectively, the FAA's inventory is used to support our nation's airspace system and is predominantly located at the FAA Mike Monroney Aeronautical Center in Oklahoma City. Inventory that is deemed to be excess, obsolete and unserviceable is expected to have no net realizable value and a loss is recognized for the carrying amount. The carrying amount before identification as excess, obsolete and unserviceable inventory was $6.9 million in fiscal year 2018 and $27.2 million in fiscal year 2017.

Operating materials and supplies primarily consists of materials and supplies that will be used in the repair and maintenance of FAA-owned aircraft. As of September 30, 2018 and 2017, inventory, operating materials, and supplies were:

	2018		
	Cost	Allowance	Net
Inventory			
Held for sale	$ 249,399	$ –	$ 249,399
Held for repair	366,620	–	366,620
Raw materials and work in progress	47,189	–	47,189
Inventory total	663,208	–	663,208
Operating materials and supplies			
Held for use	48,085	–	48,085
Held for repair	36,389	(18,194)	18,195
Excess, obsolete, and unserviceable	3,094	(2,058)	1,036
Operating materials and supplies total	87,568	(20,252)	67,316
Total inventory, operating materials, and supplies	$ 750,776	$ (20,252)	$ 730,524

	2017		
	Cost	Allowance	Net
Inventory			
Held for sale	$ 241,215	$ –	$ 241,215
Held for repair	359,421	–	359,421
Raw materials and work in progress	48,427	–	48,427
Inventory total	649,063	–	649,063
Operating materials and supplies			
Held for use	44,235	–	44,235
Held for repair	33,397	(16,699)	16,698
Excess, obsolete, and unserviceable	2,513	(1,670)	843
Operating materials and supplies total	80,145	(18,369)	61,776
Total inventory, operating materials, and supplies	$ 729,208	$ (18,369)	$ 710,839

NOTE 6. Property, Plant, and Equipment, Net

Property, plant, and equipment balances as of September 30, 2018 and 2017 were:

	2018		
Class of fixed asset	Acquisition value	Accumulated depreciation	Net book value
Real property, including land	$ 6,372,533	$ (3,575,091)	$ 2,797,442
Personal property	18,439,581	(12,464,201)	5,975,380
Internal use software	3,130,685	(1,861,242)	1,269,443
Internal use software in development	729,066	–	729,066
Assets under capital lease (Note 9)	107,699	(51,311)	56,388
Construction in progress	1,426,849	–	1,426,849
Total property, plant and equipment	$ 30,206,413	$ (17,951,845)	$ 12,254,568

	2017		
Class of fixed asset	Acquisition value	Accumulated depreciation	Net book value
Real property, including land	$ 6,421,628	$ (3,546,710)	$ 2,874,918
Personal property	18,370,089	(11,556,792)	6,813,297
Internal use software	2,737,365	(1,553,669)	1,183,696
Internal use software in development	709,395	–	709,395
Assets under capital lease (Note 9)	106,063	(51,289)	54,774
Construction in progress	1,005,701	–	1,005,701
Total property, plant and equipment	$ 29,350,241	$ (16,708,460)	$ 12,641,781

The FAA's construction in progress relates primarily to national airspace assets, which are derived from centrally funded national systems development contracts, site preparation and testing, raw materials, and internal labor charges. The accumulation of costs to be capitalized for assets in the FAA's PP&E typically flow into and remain in the construction in progress account until the asset is ready for deployment and placed in service. Once placed in service, the asset balance is transferred from the construction in progress category to its respective asset category.

NOTE 7. Environmental Liabilities

The FAA's environmental liabilities as of September 30, 2018 and 2017 were:

	2018	2017
Environmental remediation	$ 434,397	$ 492,436
Environmental cleanup and decommissioning	511,571	555,504
Total environmental liabilities	$ 945,968	$ 1,047,940

Remediation is performed at contaminated sites where the FAA has liability due to past operations or waste disposal activities. To help manage the cleanup of the contaminated sites, the FAA established an Environmental Cleanup Program that includes three service areas, which are responsible for oversight of the contaminated sites. The service area personnel use both actual costs and an automated, parametric cost-estimating tool that provides estimates for all phases of investigation and remediation to estimate the environmental remediation liability.

The Environmental cleanup and decommissioning liability is estimated using a combination of actual costs and project specific cost proposals for certain targeted facilities. The FAA uses the average decommissioning and cleanup costs of the targeted facilities as the cost basis for the other like facilities to arrive at the estimated environmental liability for decommissioning and cleanup.

A description of the two categories of environmental liabilities can be found in Note 1U. Information on contingencies related to environmental liabilities can be found in Note 16.

Environmental liabilities are not covered by budgetary or other resources and thus will require future appropriated funding.

NOTE 8. Employee Related and Other Liabilities

As of September 30, 2018 and 2017, the FAA's employee-related and other liabilities were:

	2018		
Intragovernmental	Non-current liabilities	Current liabilities	Total
Advances received	$ –	$ 197,216	$ 197,216
Accrued payroll & benefits payable to other agencies	–	71,477	71,477
Liabilities covered by budgetary resources	–	268,693	268,693
Federal Employees' Compensation Act payable	89,536	74,845	164,381
Other accrued liabilities	–	26,514	26,514
Liabilities not covered by budgetary resources	89,536	101,359	190,895
Custodial liabilities	–	17,204	17,204
Liabilities not requiring budgetary resources	–	17,204	17,204
Intragovernmental total	89,536	387,256	476,792
With the public			
Advances received and other	–	183,023	183,023
Accrued payroll & benefits payable to employees	–	237,472	237,472
Liabilities covered by budgetary resources	–	420,495	420,495
Accrued unfunded annual & other leave & assoc. benefits	–	400,639	400,639
Accrued sick leave buy back option for eligible employees	41,038	6,854	47,892
Capital leases (Notes 9 and 15)	54,866	8,993	63,859
Legal claims	–	24,460	24,460
Other accrued liabilities	–	7,761	7,761
Liabilities not covered by budgetary resources	95,904	448,707	544,611
With the public total	95,904	869,202	965,106
Total employee related and other liabilities	$ 185,440	$ 1,256,458	$ 1,441,898

	2017		
Intragovernmental	Non-current liabilities	Current liabilities	Total
Advances received	$ –	$ 212,491	$ 212,491
Accrued payroll & benefits payable to other agencies	–	70,789	70,789
Liabilities covered by budgetary resources	–	283,280	283,280
Federal Employees' Compensation Act payable	91,641	79,377	171,018
Other accrued liabilities	–	2,489	2,489
Liabilities not covered by budgetary resources	91,641	81,866	173,507
Custodial liabilities	–	11,482	11,482
Liabilities not requiring budgetary resources	–	11,482	11,482
Intragovernmental total	91,641	376,628	468,269
With the public			
Advances received and other	–	144,544	144,544
Accrued payroll & benefits payable to employees	–	234,344	234,344
Liabilities covered by budgetary resources	–	378,888	378,888
Accrued unfunded annual & other leave & assoc. benefits	–	424,486	424,486
Accrued sick leave buy back option for eligible employees	41,751	6,338	48,089
Capital leases (Notes 9 and 15)	51,236	8,458	59,694
Legal claims	–	30,405	30,405
Other accrued liabilities	–	15,011	15,011
Liabilities not covered by budgetary resources	92,987	484,698	577,685
With the public total	92,987	863,586	956,573
Total employee related and other liabilities	$ 184,628	$ 1,240,214	$ 1,424,842

"Accrued payroll and benefits payable to other agencies" consists of FAA contributions payable to other federal agencies for employee benefits. These include FAA contributions payable toward life, health, retirement benefits, Social Security, and matching contributions to the Thrift Savings Plan.

An unfunded liability is recorded for the actual cost of workers' compensation benefits to be reimbursed to the DOL, pursuant to the FECA. Reimbursement to the DOL occurs approximately two years subsequent to the actual disbursement. Budgetary resources for this intragovernmental liability are made available to the FAA as part of its annual appropriation from Congress in the year in which the reimbursement takes place. The FAA's accrued liability as of September 30, 2018, includes workers' compensation benefits paid by DOL during the periods July 1, 2016, through June 30, 2018, and accrued liabilities for the quarter July 1, 2018, through September 30, 2018. The FAA's accrued liability as of September 30, 2017, included workers' compensation benefits paid by the DOL during the period July 1, 2015, through June 30, 2017, and accrued liabilities for the quarter July 1, 2017, through September 30, 2017.

The estimated liability for accrued unfunded leave and associated benefits includes annual and other types of vested leave. Additionally, under the terms of various bargaining unit agreements, employees who are in FERS have the option to receive a lump sum payment for 40 percent of their accumulated sick leave as of their effective retirement date. Based on sick leave balances, this estimated liability was $47.9 million and $48.1 million as of September 30, 2018 and 2017, respectively.

The FAA estimated that 100 percent of its $24.5 million and $30.4 million legal claims liabilities as of September 30, 2018 and 2017, respectively, would be paid from the permanent appropriation for judgments, awards, and compromise settlements (Judgment Fund) administered by the Department of Treasury.

Other accrued liabilities with the public are composed primarily of accruals for utilities, leases, and travel. Total liabilities not covered by budgetary resources are presented in Note 15.

NOTE 9. Leases

The FAA has both capital and operating leases.

Capital Leases

Following is a summary of FAA's assets under capital lease as of September 30, 2018 and 2017:

	2018	2017
Non-Federal		
Land, buildings, and machinery	$ 107,699	$ 106,063
Accumulated depreciation	(51,311)	(51,289)
Non-Federal assets under capital lease, net	56,388	54,774
Total assets under capital lease, net	$ 56,388	$ 54,774

As of September 30, 2018, the FAA's future payments due on assets under capital lease were:

Future payments due by fiscal year (Liabilities not covered by budgetary or other resources)	
Year 1 (FY 2019)	$ 8,993
Year 2 (FY 2020)	8,453
Year 3 (FY 2021)	8,043
Year 4 (FY 2022)	8,059
Year 5 (FY 2023)	8,038
After 5 Years	36,724
Less: Imputed interest	(14,451)
Total capital lease liability	$ 63,859

As of September 30, 2018, all future payments due on assets under capital lease were non-federal.

The FAA's capital lease payments are authorized to be funded annually as codified in the United States Code–Title 49–Section 40110(c)(1) which addresses general procurement authority. The remaining principal payments are recorded as unfunded lease liabilities. The imputed interest is funded and expensed annually.

Operating Leases

The FAA has operating leases for real property, aircraft, and telecommunications equipment. Future operating lease payments due as of September 30, 2018, were:

Fiscal year	Federal	Non-Federal	Total
Year 1 (FY 2019)	$ 126,721	$ 67,261	$ 193,982
Year 2 (FY 2020)	111,281	57,324	168,605
Year 3 (FY 2021)	100,586	50,448	151,034
Year 4 (FY 2022)	95,417	42,156	137,573
Year 5 (FY 2023)	94,027	36,754	130,781
After 5 Years	639,356	141,031	780,387
Total future operating lease payments	$ 1,167,388	$ 394,974	$ 1,562,362

Operating lease expense incurred during the year ended September 30, 2018 was $191.8 million, of which $104.2 million was federal and $87.6 million was non-federal. Operating lease expense incurred during the year ended September 30, 2017 was $200.1 million. Federal operating leases include General Services Administration (GSA) leases that have a short termination privilege. However, the FAA intends to remain in the lease. The operating lease amounts due after five years do not include estimated payments for leases with annual renewal options. Estimates of the lease termination dates are subjective, and any projection of future lease payments would be arbitrary.

NOTE 10. Federal Employee Benefits Payable

As of September 30, 2018 and 2017, FECA actuarial liabilities were $806.7 million and $818.7 million, respectively. The DOL calculates the FECA liability for the DOT, and the DOT allocates the liability amount to the FAA, based on actual workers' compensation payments to FAA employees over the preceding four years. FECA liabilities include the expected liability for death, disability, medical, and miscellaneous costs for approved compensation cases, plus a component for incurred but unreported claims. The estimated liability is not covered by budgetary or other resources and thus will require future appropriated funding.

NOTE 11. Net Cost by Program and Other Statement of Net Cost Disclosures

The FAA's five lines of business represent the programs reported in the Consolidated Statements of Net Cost. Cost centers assigned to each line of business permit the direct accumulation of costs. Other costs that are not directly traced to each line of business, such as agency overhead, are allocated. The net cost for non-line of business programs includes services provided by the Aeronautical Center, aviation overflight user fees, and other programs.

The following is the net cost of operations by strategic priority for the years ended September 30, 2018 and 2017:

	For the Year Ended September 30, 2018				
	Strategic Priorities				
	Make Aviation Safer and Smarter	Deliver Benefits Through Technology and Infrastructure	Enhance Global Leadership	Empower and Innovate with FAA's People	Total
Line of Business programs					
Air Traffic Organization	$ 9,652,132	$ 1,517,183	$ 3,098	$ 169,586	$ 11,341,999
Airports	1,661,906	1,503,477	95	1,299	3,166,777
Aviation Safety	1,452,685	2,739	27,213	17,565	1,500,202
Security and Hazardous Materials Safety	132,131	555	299	876	133,861
Commercial Space Transportation	2,826	13	16,166	4,137	23,142
Non-Line of Business programs	252,496	142,717	(3,404)	37,429	429,238
Net cost	$ 13,154,176	$ 3,166,684	$ 43,467	$ 230,892	$ 16,595,219

	For the Year Ended September 30, 2017				
	Strategic Priorities				
	Make Aviation Safer and Smarter	Deliver Benefits Through Technology and Infrastructure	Enhance Global Leadership	Empower and Innovate with FAA's People	Total
Line of Business programs					
Air Traffic Organization	$ 9,491,134	$ 1,727,606	$ 4,544	$ 164,475	$ 11,387,759
Airports	1,724,257	1,559,850	102	1,234	3,285,443
Aviation Safety	1,450,041	2,718	26,039	17,031	1,495,829
Security and Hazardous Materials Safety	97,689	925	96	874	99,584
Commercial Space Transportation	2,911	27	15,014	5,348	23,300
Non-Line of Business programs	369,234	51,737	(1,742)	15,559	434,788
Net cost	$ 13,135,266	$ 3,342,863	$ 44,053	$ 204,521	$ 16,726,703

NOTE 12. Funds from Dedicated Collections

Funds from dedicated collections are those that are financed by specifically identified revenues and financing sources which remain available over time. They are required by statute to be used for designated activities, benefits, or purposes and must be accounted for separately from the government's general revenues.

The FAA's funds from dedicated collections are reported in the Consolidated Statements of Changes in Net Position and on pages 103–104 among two classifications. The first classification is comprised of the financial statement balances in AATF as of the end of each fiscal year. The second classification of "All other funds from dedicated collections" is comprised of the financial statement balances of all the related funds that receive funding from the AATF and includes Operations-AATF, Grants-in-Aid for Airports-AATF, Facilities and Equipment, and Research, Engineering and Development. The "All other funds from dedicated collections" classification also includes the Operations-General Fund, which is primarily funded through transfers from Operations-AATF, but is additionally supplemented by the General Fund of the U.S. Treasury through annual appropriations. However, since the Operations account is primarily funded from the AATF, it is properly presented as a "fund from dedicated collections." The category of "All other funds from dedicated collections" also includes the Aviation Insurance Revolving Fund and aviation user fees.

In addition, this note presents only the funds from dedicated collections that are financing sources available for future expenses, and funds that have been expended but have not yet fully achieved their designated purpose, such as construction in progress. As such, PP&E that has been placed in service, though funded from Facilities and Equipment, are excluded from this note; these funds are no longer available for future expenditure and have been used for their intended purpose.

Airport and Airway Trust Fund

The FAA's consolidated financial statements include the results of operations and the financial position of the AATF. Congress created the AATF with the passage of the Airport and Airway Revenue Act of 1970.

The Act provides a dedicated source of funding for the nation's aviation system through the collection of several aviation-related excise taxes. The IRS collects these taxes on behalf of the FAA's AATF. These taxes can be withdrawn only as appropriated by the U.S. Congress. Twice a month, Treasury allocates the amount collected and subsequently adjusts the allocation to reflect actual collections quarterly.

As discussed in Note 1D, FY 2018 excise tax revenue includes amounts certified as actual by the IRS for the first three quarters of the year and amounts allocated by OTA for the fourth quarter of the year.

All Other Funds from Dedicated Collections

- The Aviation Insurance Program had investments of $2.2 billion and revenues of $32.5 million for the period ended September 30, 2018 compared to $2.2 billion and $41.8 million for the period September 30, 2017. The Aviation Insurance Program is also discussed in Notes 1G and 16.
- Aviation user fees are charged to commercial airlines that fly in U.S. controlled air space, but neither take off nor land in the U.S. The FAA reported aviation user fees of $140.7 million and $123.1 million for the periods ended September 30, 2018 and 2017, respectively.

Fiscal data as of and for the years ended September 30, 2018 and 2017 are summarized in the following charts. Intra-agency transactions have not been eliminated in the amounts presented.

	2018		
	AATF	All other funds from dedicated collections	Total funds from dedicated collections
BALANCE SHEET			
Assets			
Fund balance with Treasury	$ 1,135,600	$ 2,332,684	$ 3,468,284
Investments, net	14,280,515	2,244,688	16,525,203
Accounts receivable, net	–	6,302,089	6,302,089
Other assets	–	2,337,040	2,337,040
Total assets	$ 15,416,115	$ 13,216,501	$ 28,632,616
Liabilities and net position			
AATF amounts due to the FAA	$ 6,192,534	$ –	$ 6,192,534
Other liabilities	–	3,149,634	3,149,634
Unexpended appropriations	–	1,085,256	1,085,256
Cumulative results of operations	9,223,581	8,981,611	18,205,192
Total liabilities and net position	$ 15,416,115	$ 13,216,501	$ 28,632,616
STATEMENT OF NET COST			
Program costs	$ 1	$ 15,227,219	$ 15,227,220
Less earned revenue:			
Aviation insurance	–	(151)	(151)
Overflight user fees	–	(140,718)	(140,718)
Other revenue	(5)	(236,840)	(236,845)
Net cost of operations	$ (4)	$ 14,849,510	$ 14,849,506
STATEMENT OF CHANGES IN NET POSITION			
Cumulative results beginning of period	$ 8,665,627	$ 8,036,745	$ 16,702,372
Non-exchange revenue:			
Passenger ticket tax	10,484,955	–	10,484,955
International departure tax	4,093,269	–	4,093,269
Investment income	299,257	–	299,257
Fuel taxes	689,249	–	689,249
Waybill tax	540,403	–	540,403
Tax refunds and credits	(15,353)	–	(15,353)
Other revenue	–	37,624	37,624
Budgetary financing sources	(15,533,830)	16,453,450	919,620
Other financing sources	–	(696,698)	(696,698)
Net cost of operations	4	(14,849,510)	(14,849,506)
Cumulative results end of period	9,223,581	8,981,611	18,205,192
Unexpended appropriations	–	1,085,256	1,085,256
Net position end of period	$ 9,223,581	$ 10,066,867	$ 19,290,448

	2017		
	AATF	All other funds from dedicated collections	Total funds from dedicated collections
BALANCE SHEET			
Assets			
Fund balance with Treasury	$ 1,011,443	$ 1,986,300	$ 2,997,743
Investments, net	13,460,739	2,211,101	15,671,840
Accounts receivable, net	–	6,144,803	6,144,803
Other assets	–	2,068,711	2,068,711
Total assets	$ 14,472,182	$ 12,410,915	$ 26,883,097
Liabilities and net position			
AATF amounts due to the FAA	$ 5,806,555	$ –	$ 5,806,555
Other liabilities	–	3,409,021	3,409,021
Unexpended appropriations	–	965,149	965,149
Cumulative results of operations	8,665,627	8,036,745	16,702,372
Total liabilities and net position	$ 14,472,182	$ 12,410,915	$ 26,883,097
STATEMENT OF NET COST			
Program costs	$ –	$ 15,314,996	$ 15,314,996
Less earned revenue:			
Aviation insurance	–	(20,101)	(20,101)
Overflight user fees	–	(123,144)	(123,144)
Other revenue	–	(207,335)	(207,335)
Net cost of operations	$ –	$ 14,964,416	$ 14,964,416
STATEMENT OF CHANGES IN NET POSITION			
Cumulative results beginning of period	$ 9,394,840	$ 6,983,142	$ 16,377,982
Non-exchange revenue:			
Passenger ticket tax	10,069,332	–	10,069,332
International departure tax	3,844,342	–	3,844,342
Investment income	281,797	–	281,797
Fuel taxes	651,116	–	651,116
Waybill tax	504,809	–	504,809
Tax refunds and credits	(14,801)	–	(14,801)
Other revenue	–	26,063	26,063
Budgetary financing sources	(16,065,808)	16,838,475	772,667
Other financing sources	–	(846,519)	(846,519)
Net cost of operations	–	(14,964,416)	(14,964,416)
Cumulative results end of period	8,665,627	8,036,745	16,702,372
Unexpended appropriations	–	965,149	965,149
Net position end of period	$ 8,665,627	$ 9,001,894	$ 17,667,521

NOTE 13. Imputed Financing Sources

The FAA recognizes, as imputed financing, the amount of accrued pension and post-retirement benefit expenses for current employees. The assets and liabilities associated with such benefits are the responsibility of the administering agency, the OPM. Amounts paid from the U.S. Treasury's Judgment Fund in settlement of claims or court assessments against the FAA are also recognized as imputed financing. The FAA also recognizes imputed financing from the Department of Homeland Security's Continuous Diagnostic and Mitigation program in support of government-wide focus on heightened cyber security. For the fiscal years ended September 30, 2018 and 2017, imputed financing was as follows:

	2018	2017
Office of Personnel Management	$ 387,477	$ 303,957
Treasury Judgment Fund	9,896	10,858
Department of Homeland Security	3,049	2,729
Total imputed financing sources	$ 400,422	$ 317,544

NOTE 14. Statement of Budgetary Resources Disclosures

Unobligated Balance from Prior Year Budget Authority, Net

The unobligated balance from prior year budget authority is presented net of transfers, recoveries from prior year obligations, and balances withdrawn for cancelled authority. As a result, the amount will not equal the prior year unobligated balance, end of year total.

The net adjustments to unobligated balance brought forward presented as a memorandum entry does not include non-expenditure transfers of prior year balances and may not include all adjustments made to beginning balances.

Appropriations

Appropriations, as reported in the Combined Statements of Budgetary Resources, includes amounts made available to the FAA from general, revolving, and special funds, as well as funds from dedicated collections. In contrast, appropriations received as reported in the Consolidated Statements of Changes in Net Position pertain only to amounts made available to the FAA from general funds. The following is a reconciliation of these amounts as of September 30:

	2018	2017
Combined Statement of Budgetary Resources–appropriations	$ 15,775,415	$ 13,064,322
Less amounts made available to the FAA from AATF dedicated collections	(12,404,515)	(12,204,500)
Less other appropriated receipts and budgetary adjustments	(1,010,146)	(6,970)
Consolidated Statement of Changes in Net Position–appropriations received	$ 2,360,754	$ 852,852

Available Contract Authority

Contract authority, as reported on the Combined Statement of Budgetary Resources, is the amount permitted by law to enter into contracts or incur obligations. Throughout the fiscal year, the contract authority is liquidated by appropriation. As of September 30, 2018 and 2017, the remaining contract authority available was $264 thousand and $2.1 million, respectively.

Apportionment Categories of New Obligations and Upward Adjustments

During FY 2018 and FY 2017, direct and reimbursable new obligations and upward adjustments against amounts apportioned under categories A and B, and amounts exempt from apportionment, as defined in OMB Circular No. A-11, Part 4, *Instructions on Budget Execution*, were as follows:

	2018			2017		
	Direct	Reimbursable	Total	Direct	Reimbursable	Total
Category A	$ 816	$ 528,720	$ 529,536	$ 109,098	$ 512,972	$ 622,070
Category B	26,777,456	279,036	27,056,492	25,574,399	230,898	25,805,297
Exempt from apportionment	1	–	1	15	–	15
Total	$ 26,778,273	$ 807,756	$ 27,586,029	$ 25,683,512	$ 743,870	$ 26,427,382

Undelivered Orders

As of September 30, 2018, the amount of budgetary resources obligated for undelivered orders were:

	2018		
	Federal	Non-Federal	Total
Obligations, unpaid	$ 222,035	$ 8,324,494	$ 8,546,529
Obligations, prepaid/advanced	236,109	1,655	237,764
Total	$ 458,144	$ 8,326,149	$ 8,784,293

As of September 30, 2017, the total amount of budgetary resources obligated for undelivered orders was $8,227,303.

Legal Arrangements Affecting the Use of Unobligated Balances

Unobligated balances remain legally available for obligation when the funds are apportioned by the OMB and the period of availability is unexpired. Unobligated balances are not available when the funds are not yet apportioned or the period of availability is expired. Unobligated balances of expired accounts are not available to fund new obligations, but they can be used for upward adjustments of obligations that were incurred during the period of availability or for paying claims attributable to that time period.

Aviation insurance investments are not available for obligation until authorized, for example, in the event of a major air carrier loss caused by a war risk occurrence.

Statement of Budgetary Resources vs. the Budget of the U.S. Government

The following is a reconciliation of the Combined Statement of Budgetary Resources with the Budget of the U.S. Government:

	For the Year Ended September 30, 2017		
	Budgetary Authority	New Obligations and Upward Adjustments	Net Outlays
FAA Combined Statement of Budgetary Resources	$ 16,414	$ 26,427	$ 15,853
Reconciliation to Budget of the U.S. Government:			
Items included in the Combined Statement of Budgetary Resources, but excluded from the President's budget:			
Obligation from Trust Funds	–	(9,173)	–
Distributed Offsetting Receipts	–	–	13
Obligations of non-reimbursable expired funds	–	(42)	–
Reimbursable obligations including Franchise fund	–	(744)	–
Other	1	(3)	1
Budget of the United States Government	$ 16,415	$ 16,465	$ 15,867

(For consistency with the presentation of the Budget of the U.S. Government, dollars are presented in millions in this table only.)

There is no difference between Budgetary Authority as reported in the FAA's FY 2017 Combined Statement of Budgetary Resources and the Budget of the United States Government, except for rounding differences.

The FAA's Combined Statement of Budgetary Resources includes obligations resulting from transfers between the AATF and FAA Operations-General Fund, which are excluded from the Budget of the U.S. Government. In addition, new obligations and upward adjustments on the FY 2017 Combined Statement of Budgetary Resources include $42 million of expired funds and $744 million of certain reimbursable and revolving fund obligations that are not presented in the Budget of the U.S. Government. As a result, the FAA's FY 2017 Combined Statement of Budgetary Resources differs from the FY 2017 "actuals" reported in the appendix of the FY 2019 Budget of the U.S. Government. (The Budget of the U.S. Government is available on the OMB's web site.) As of the date of issuance of the FAA's FY 2018 Combined Statement of Budgetary Resources, the Budget of the U.S. Government for FY 2020, which will contain "actual" FY 2018 amounts, was not yet published. The OMB is expected to publish this information early in calendar year 2019.

NOTE 15. Liabilities not Covered by Budgetary Resources

Liabilities not covered by budgetary resources are liabilities for which congressional action is needed before budgetary resources can be provided. The following table shows liabilities not covered by budgetary resources as of September 30, 2018 and 2017.

	2018	2017
Intragovernmental		
Federal Employees' Compensation Act payable (Note 8)	$ 164,381	$ 171,018
Other accrued liabilities	26,514	2,489
Total intragovernmental	190,895	173,507
FECA actuarial (Note 10)	806,679	818,732
Unfunded annual & other leave & assoc. benefits (Note 8)	400,639	424,486
Sick leave compensation benefits for eligible employees (Note 8)	47,892	48,089
Legal claims (Note 8 and 16)	24,460	30,405
Environmental liabilities (Note 7 and 16)	945,968	1,047,940
Capital leases (Note 8 and 9)	63,859	59,694
Other accrued liabilities (Note 8)	7,761	15,011
Total liabilities not covered by budgetary resources	$ 2,488,153	$ 2,617,864
Total liabilities not covered by budgetary resources	2,488,153	2,617,864
Total liabilities covered by budgetary resources	1,894,664	1,900,882
Total liabilities not requiring budgetary resources	17,204	11,482
Total liabilities	$ 4,400,021	$ 4,530,228

NOTE 16. Commitments, Contingencies, and Other Disclosures

Continuing Resolution and Reauthorization. Effective October 1, 2018, the FAA is operating under a continuing resolution, Public Law 115-245, for its FY 2019 appropriation and many of its programmatic and financing authorities. The continuing resolution will be in effect through December 7, 2018, unless superseded by enactment of specified appropriations legislation and includes a provision that allows the FAA to continue spending at FY 2018 rates.

In addition, the passage of the FAA Reauthorization Act of 2018, Public Law 115-254 authorizes the FAA's programmatic and financing authorities, the Airport Improvement Program contract authority, and the authority to collect and deposit excise taxes into and make expenditures from the AATF. The new authority expires on September 30, 2023.

Airport Improvement Program. The Airport Improvement Program provides grants for the planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems. Eligible projects generally include improvements that address airport safety, capacity, security, and environmental concerns. The FAA's share of eligible costs for large and medium primary hub airports is 75 percent, with the exception of noise program implementation, for which the FAA's share is 80 percent. For remaining airports (small primary, reliever, and general aviation), the FAA's share of eligible costs is 90 percent.

The FAA has authority under 49 U.S.C. 47110(e) to issue letters of intent to enter into a series of annual Airport Improvement Program grant agreements. The FAA records an obligation when a grant is awarded. As of September 30, 2018, the FAA had letters of intent extending through FY 2026 totaling $7.3 billion. As of September 30, 2018, the FAA had obligated $6.7 billion of this total amount, leaving $548 million unobligated.

As of September 30, 2017, the FAA had letters of intent extending through FY 2026 totaling $7.1 billion. As of September 30, 2017, the FAA had obligated $6.6 billion of this total amount, leaving $488 million unobligated.

Aviation Insurance Program. The FAA provides non-premium war risk insurance for certain U.S. Government contracted operations as permitted by 49 USC 44305. Coverage is provided without premium to air carriers at the written request of other U.S. Government agencies. The scope of coverage under the Non-Premium War Risk Insurance program includes hull, bodily injury, personal injury, and property damage. The FAA is currently providing coverage for certain U.S. Department of Defense (DOD) contracted air carrier operations.

Because insurance policies are issued only at the request of other federal departments and agencies, total coverage-in-force fluctuates throughout the fiscal year. The coverage-in-force at any given point in time does not represent a potential liability against the Aviation Insurance Revolving Fund because the Secretary of Defense has entered into an indemnity agreement with the Secretary of Transportation and will fully reimburse the Fund for all losses paid by the FAA on behalf of DOD.

Legal Claims. As of September 30, 2018 and 2017, the FAA's contingent liabilities for asserted and pending legal claims probable were estimated at $24.5 million and $30.4 million respectively. Pending legal claims reasonably possible as of September 30, 2018 and 2017 were estimated at $284.3 million and $233.8 million, respectively. There are other claims that could result in significant pay-outs; however, it is not possible at this time to determine the probability of an unfavorable outcome, or to estimate the amount of potential loss in the event of such an outcome.

Environmental Liabilities. As of September 30, 2018, the FAA estimated contingent liabilities, categorized as reasonably possible at $157.5 million, related to environmental remediation. Contingency costs are defined for environmental remediation liabilities as those costs that may result from incomplete design, unforeseen and unpredictable conditions or uncertainties within a defined project scope. Note 7 discloses the environmental remediation liability accrual.

FAA is a party to environmental remediation sites in Alaska, the Pacific Islands, and New Jersey in which the extent of liability is not both probable and reasonably estimable. As a result, a liability is not recognized for these sites without further studies and negotiations with other federal agencies.

Disclosure Entities. The Center for Advanced Aviation System Development (CAASD) is a Federally Funded Research and Development Center (FFRDC) sponsored by the FAA. FFRDCs are nonprofit entities that are sponsored and funded by the U.S. Government to meet special long-term research or development needs. CAASD serves the public interest by providing essential research to advance the safety, security, effectiveness, and efficiency of aerospace and transportation in the United States and around the world.

The administrator of CAASD is The MITRE Corporation (MITRE). MITRE is a not-for-profit organization that operates multiple FFRDCs including CAASD. MITRE is a "public interest company" having no commercial interests. The absence of commercial conflicts of interest is essential to maintaining independence and objectivity.

As the sponsor of CAASD, the FAA has a long-term relationship with MITRE. The nature of this relationship is for the FAA to provide sufficient physical and financial resources in support of CAASD's innovative research and development that in turn supports the accomplishment of FAA's mission. FAA's relationship with MITRE and CAASD presents no financial or non-financial risk, and there is no expectation of benefits based on this relationship, other than the results of the independent research and development.

For the periods ended September 30, 2018 and 2017, the FAA had new obligations of $147 million and $155 million, respectively, in support of its sponsorship agreement with MITRE for CAASD.

NOTE 17. Incidental Custodial Collections

Cash collections that are "custodial" are not revenue to the FAA, but are collected on behalf of other federal entities or funds. Custodial collections are considered to be incidental to the FAA's primary mission. The following table presents custodial collections and the disposition of those collections for the years ended September 30, 2018 and 2017:

	2018	2017
Custodial revenue:		
Sources of cash collections		
Fines, penalties, and forfeitures	$ 5,254	$ 11,273
General fund proprietary interest	39	44
Miscellaneous recoveries and refunds	1,733	6,442
Total cash collections	7,026	17,759
Accrual adjustment	71	1,741
Total custodial revenue	7,097	19,500
Disposition of collections:		
Transferred to others (by recipient):		
Treasury (general fund)	7,026	17,759
Amounts yet to be transferred	71	1,741
Total disposition of collections	7,097	19,500
Net custodial activity	$ –	$ –

NOTE 18. Reconciliation of the Net Cost of Operations to Budget

The FAA records transactions on both an accrual accounting basis (also called financial or proprietary accounting) and a budgetary accounting basis. The following schedule presents a reconciliation of the resources available to the FAA to finance operations (budgetary accounting basis) and the net cost of operating the FAA programs (financial or proprietary accounting basis).

	2018	2017
Resources used to finance activities		
Budgetary resources obligated		
New obligations and upward adjustments	$ 27,586,029	$ 26,427,382
Less: Spending authority from offsetting collections and receipts and recoveries of prior year obligations	10,986,338	10,397,216
Obligations, net of offsetting collections	16,599,691	16,030,166
Other resources		
Donations and forfeitures of property	36,568	15,691
Transfers in/(out) without reimbursement	1,524	9,011
Imputed financing from costs absorbed by others	400,422	317,544
Other	3,175	214
Net other resources used to finance activities	441,689	342,460
Total resources used to finance activities	17,041,380	16,372,626
Resources used to finance items not part of the net cost of operations		
Change in budgetary resources obligated for goods, services and benefits ordered but not yet received	556,964	(30,259)
Resources that fund expenses recognized in prior periods (decreases in unfunded liabilities)	130,595	36,757
Resources that finance the acquisition of assets	1,326,366	1,169,484
Other resources or adjustments to net obligated resources that do not affect net cost of operations	87,272	101,519
Total resources used to finance items not part of net cost of operations	2,101,197	1,277,501
Total resources used to finance net cost of operations	14,940,183	15,095,125
Components of net cost of operations that will not require or generate resources in the current period		
Components requiring or generating resources in future periods		
Increases in annual leave liability and other unfunded liabilities	4,517	114,517
Components not requiring or generating resources in future periods		
Depreciation and amortization	1,701,846	1,359,659
Revaluation of Assets or Liabilities	5,037	8,563
Other	(56,364)	148,839
Total components of net cost of operations that will not require or generate resources	1,650,519	1,517,061
Total components of net cost of operations that will not require or generate resources in the current period	1,655,036	1,631,578
Net cost of operations	$ 16,595,219	$ 16,726,703

Required Supplementary Stewardship Information

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STEWARDSHIP INVESTMENT
NON-FEDERAL PHYSICAL PROPERTY
AIRPORT IMPROVEMENT PROGRAM

For the Fiscal Years Ended September 30

(Dollars in Thousands)

Unaudited

State/Territory	2018	2017	2016	2015	2014
Alabama	$ 45,007	$ 48,682	$ 58,137	$ 58,003	$ 68,873
Alaska	229,373	249,894	148,217	150,992	196,013
Arizona	79,582	72,091	51,218	55,673	70,454
Arkansas	29,248	34,796	38,207	28,517	37,698
California	239,296	283,464	247,038	294,193	247,861
Colorado	55,033	71,764	69,575	70,830	88,470
Connecticut	14,877	10,996	20,240	25,031	12,527
Delaware	12,272	26,436	9,513	3,772	8,645
District of Columbia	15,692	16,969	28,174	14,549	32,924
Florida	214,779	141,151	143,872	185,794	132,904
Georgia	60,549	52,729	62,839	59,366	61,635
Hawaii	20,572	21,831	25,999	30,589	59,741
Idaho	27,024	16,888	22,198	35,386	32,652
Illinois	80,002	159,250	150,114	143,517	177,562
Indiana	52,962	49,488	72,409	59,537	70,292
Iowa	37,280	26,757	44,770	33,382	42,889
Kansas	40,923	47,430	33,421	31,642	34,803
Kentucky	38,588	27,895	45,422	46,917	33,301
Louisiana	83,550	75,542	53,763	37,298	34,447
Maine	23,743	21,598	26,115	24,057	19,712
Maryland	20,347	36,904	31,917	38,188	25,256
Massachusetts	43,932	42,646	44,120	37,243	60,985
Michigan	75,671	84,331	44,703	76,793	69,114
Minnesota	55,865	42,502	52,477	38,233	34,448
Mississippi	30,121	38,671	30,011	37,642	38,658
Missouri	59,464	74,503	68,774	41,382	46,280
Montana	37,672	49,120	38,501	29,158	27,503
Nebraska	32,458	24,925	45,490	48,299	30,446
Nevada	39,147	25,277	48,322	42,394	31,310
New Hampshire	9,527	13,103	12,686	10,756	10,940
New Jersey	44,014	30,115	61,577	39,491	59,786
New Mexico	28,110	37,733	34,611	28,783	22,869

(continued on next page)

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STEWARDSHIP INVESTMENT
NON-FEDERAL PHYSICAL PROPERTY
AIRPORT IMPROVEMENT PROGRAM

For the Fiscal Years Ended September 30

(Dollars in Thousands)

Unaudited

State/Territory	2018	2017	2016	2015	2014
New York	$ 69,208	$ 76,184	$ 80,016	$ 83,194	$ 72,170
North Carolina	77,065	87,561	61,926	75,198	75,162
North Dakota	36,471	39,935	38,683	45,644	37,970
Ohio	70,602	77,012	68,870	63,469	57,037
Oklahoma	31,867	31,164	40,598	34,523	30,764
Oregon	52,163	56,965	50,357	33,364	51,353
Pennsylvania	84,030	59,800	59,892	71,483	69,832
Rhode Island	19,773	30,400	28,859	42,722	16,190
South Carolina	63,829	68,717	50,956	49,729	37,411
South Dakota	25,078	36,031	19,471	27,702	25,208
Tennessee	57,453	84,038	66,648	73,043	70,404
Texas	205,622	235,373	222,141	217,574	239,187
Utah	53,280	35,970	32,597	49,761	57,880
Vermont	20,369	21,627	19,161	18,028	11,964
Virginia	54,642	50,099	45,271	40,712	50,364
Washington	92,142	75,317	94,812	67,474	61,151
West Virginia	21,926	13,048	17,394	26,942	19,037
Wisconsin	26,352	36,591	41,113	58,612	56,064
Wyoming	34,267	25,665	31,038	35,191	26,084
American Samoa	12,257	5,263	4,954	5,839	1,743
Guam	10,869	5,797	4,823	–	13,550
Northern Mariana Island	6,162	4,694	4,717	9,662	9,657
Puerto Rico	5,356	7,221	8,102	7,720	11,820
Virgin Islands	6,267	9,437	5,694	9,327	10,640
Marshall Island	–	–	–	5,132	7,157
Administration	153,047	156,053	165,235	150,165	148,652
Totals	**$ 3,166,777**	**$ 3,285,443**	**$ 3,127,758**	**$ 3,159,617**	**$ 3,189,449**

The FAA makes project grants for airport planning and development under the Airport Improvement Program, in order to maintain a safe and efficient nationwide system of public-use airports that meets both the present and future needs of civil aeronautics.

The FAA works to improve the infrastructure of the nation's airports, in cooperation with airport authorities, local and state governments, and metropolitan planning authorities.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STEWARDSHIP INVESTMENT RESEARCH AND DEVELOPMENT

For the Fiscal Years Ended September 30

(Dollars in Thousands)

Unaudited

Expenses	2018	2017	2016	2015	2014
Applied Research	$ 103,265	$ 117,736	$ 110,363	$ 106,363	$ 155,883
Development	141,540	169,961	138,483	93,972	40
Administration	40,046	40,016	39,959	34,321	32,572
R&D Plant	25,887	21,314	19,766	17,711	12,479
Total	**$ 310,738**	**$ 349,027**	**$ 308,571**	**$ 252,367**	**$ 200,974**

The FAA conducts ongoing research as part of its mission to provide the safest, most efficient aerospace system in the world.

Research priorities include improved aircraft structures and materials; enhanced fire and cabin safety; greater crash injury protection; more sensitive explosive detection systems; ground de-icing operations and less in-flight ice buildup; better tools to predict and warn of weather hazards, turbulence, and wake vortices; advanced aerospace medicine; and optimized human factors. 'Aerospace medicine' includes, for example, the medical aspects of pilot certification, drug and alcohol testing, and ensuring that employees in safety critical duties meet medical standards. 'Human factors' refers to research about how people (e.g., air traffic controllers, pilots, and others) perform when interacting with, for example, aviation technology and equipment, under various stressful conditions. Optimizing this interaction contributes to safer air travel. Presented below are a few examples of how the FAA's research and development promotes safe and efficient air travel.

Research & Development (R&D) Wake Data Collection and Analysis is Enabling Airports to Handle More Flights without Building More Runways

Today, airports are experiencing fewer flight delays during less than optimal weather conditions due to the advances in aircraft generated wake turbulence data collection and analyses. FAA R&D advances have enabled a series of safe reductions to the wake separations that air traffic control (ATC) applies between arrival and departure traffic. The reduced flight delay has been achieved without requiring airports to build additional runways or airlines to equip with additional avionics.

Since 2001, the FAA has conducted significant research across multiple airports to accurately characterize wake turbulence created by various types of aircraft under varying environmental conditions. These analyses have supported safety approval for several reduced separation standards and procedures including dependent staggered approaches and wake recategorization. The new wake turbulence recategorization standards permit aircraft to safely take-off and land closer to each other, resulting in increased capacity and flight efficiency at many airports across the country. In 2018, wake data collection and analysis led directly to reduced wake separation standards for dependent staggered approaches to parallel runways spaced less than 2500' between centerlines. San Francisco International Airport, one of eight airports approved for the 30 percent reduction in required separation afforded by this procedure, has already begun demonstrating the capacity benefits.

FAA R&D continues to collect and analyze aircraft wake track data for airport arrival and departures. The resulting data are used to develop further reductions in wake separation standards for individual types of aircraft in the terminal area; and, when qualifying wind conditions occur along aircraft arrival and departure paths.

Remote Oceanic Meteorological Information Operational (ROMIO)

The Federal Aviation Administration (FAA) Weather Technology in the Cockpit (WTIC) program sponsored an operational demonstration to evaluate the feasibility to uplink convective storm data products to commercial aircraft flying routes over remote, oceanic regions for display on an electronic device pilots use in the cockpit. The effort was called the Remote Oceanic Meteorology Information Operational (ROMIO) demonstration and was a collaborative effort between the FAA, the weather research community, airlines and ground-to-air communications providers. The ROMIO was developed to demonstrate operational strategies for the use of rapidly updated Cloud Top Height (CTH) and Convective Diagnosis Oceanic (CDO) products on the flight deck, in the Oceanic Air Route Traffic Control Centers, and as part of Airline Operations Center flight dispatch operations. Participating airlines included Delta Air Lines, United Airlines and American Airlines.

In July 2018, a Delta Airlines pilot involved in the demonstration flew two transcontinental flights midweek with a fair amount of convective activity. The pilot used the CTH and CDO products evaluated by the FAA and reported that the CTH product was "spot on" and the CDO product was "accurate as well." He found that the playback feature was a "great tool showing whether the convective activity is maturing or declining." Overall, the pilot's assessment was that the demonstration gave him "a real time, accurate planning tool for deviation." The demonstration successfully helped to identify and validate the ability and usefulness in providing convective meteorological information services to aircraft for safe and efficient flight in oceanic and remote airspace.

Engineered Material Arresting Systems (EMAS)

The FAA has actively worked to improve runway safety areas (RSAs) at commercial service airports. The RSA is typically 500 feet wide and extends 1,000 feet beyond each end of the runway. It provides a graded area in the event that an aircraft overruns, undershoots, or veers off the side of the runway. Many airports were built before the current 1,000-foot RSA standard was adopted approximately 20 years ago. In some cases, it is not practicable to achieve the full standard RSA because there may be a lack of available land. There also may be obstacles such as bodies of water, highways, railroads, and populated areas or severe drop-off of terrain.

The FAA conducted research to determine how to improve safety at airports where the full RSA cannot be obtained. Working in concert with the University of Dayton, the Port Authority of New York and New Jersey, and the Engineered Arresting Systems Corporation of Logan Township, NJ, a new technology emerged to safely arrest overrunning aircraft. EMAS uses crushable material placed at the end of a runway to stop an aircraft that overruns the runway. The tires of the aircraft sink into the lightweight material and the aircraft is decelerated as it rolls through the material.

As a result of the extensive research and development performed by the FAA, the EMAS technology has safely stopped 13 overrunning aircraft, and saved 288 lives. The most recent event took place on February 4, 2018 at Burke Lakefront Airport in Cleveland, Ohio. The aircraft came to rest approximately 2/3rd the way into the EMAS along the extended centerline of the runway. There were no injuries to any of the 4 occupants on board the aircraft. This recent save shows the efficacy of the long standing FAA's research program on stopping overruns at airports.

The EMAS technology provides safety benefits in cases where land is not available, where it would be very expensive for the airport sponsor to buy the land off the end of the runway, or where it is otherwise not possible to have the standard 1,000-foot overrun. A standard EMAS installation extends 600 feet from the end of the runway. An EMAS arrestor bed can still be installed to help slow or stop an aircraft that overruns the runway, even if less than 600 feet of land is available.

Aeromedical Research

A critical component of aviation safety relies on the airworthiness of the pilots that are at the controls of the world's aircraft. The FAA is responsible for insuring that all pilots operating under a U.S. issued pilot certificate meet the medical certification standards established by International Civil Aviation Organization (ICAO), as well as the FAAs own medical criteria.

The FAA has relied on the process of evaluating the medical competency of a pilot to operate aircraft through regular medical examinations that ensure the pilots meet certain certification guidelines for their intended mode of operation. These medical evaluations lead to the issuance of valid medical certificates, or provide information to the FAA for pilots that have not been able to demonstrate medical competency. An important component of this program is the capability to issue waivers for pilots who do not meet prescribed medical standards. ICAO endorses this practice, and the FAA has established its own guidelines for how they are issued and monitored.

The Medical Research team of the Aerospace Medical Research Division of FAA's Civil Aerospace Medical Institute examined the U.S. experience with special issuance waivers granted to airmen applicants over the 10-year period from 2002 through 2011. During this period, the FAA issued over 4 million valid medical certificates to more than 1 million pilots. Of these certificates, approximately 250,000 (6.1 percent of issued exams) were issued with a special issuance waiver. This included nearly 70,000 unique pilots (6.6 percent) who were approved for one or more special issuance waivers.

To evaluate the safety and effectiveness of issuing these waivers, the National Transportation Safety Board examined the database of U.S. aviation accidents to determine the medical certification status of pilots involved in incidents. The results indicated that the overall effect of the FAA program of special issuance waivers shows no detrimental effect on aviation accidents, and enables a large number of pilots to safely continue their aviation pursuits in spite of failure to meet specific regulatory medical standards.[1]

1 *Mills WD, Davis JT. The U.S. Experience with Special Issuance Medical Waivers. J Aerospace Medicine & Human Performance, 2018:89(10):905-911.*

Required Supplementary Information

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SUPPLEMENTARY INFORMATION
DEFERRED MAINTENANCE AND REPAIRS

As of September 30, 2018
(Dollars in Thousands)

Unaudited

			Cost to return to acceptable condition	
Category	**Description**	**Facility condition is <**	**Beginning balance**	**Ending balance**
Staffed Facilities				
Tier 1	ARTCCs, ATCT/TRACONs at major airports	95%	$ 165,827	$ 209,617
Tier 2	WJHTC and MMAC	95%	56,250	57,078
Tier 3	ATCT/TRACONs at all non-major airports	90%	14,807	14,605
Unstaffed Facilities				
Tier 1	Long range radars	95%	68,537	70,966
Other	Unstaffed infrastructure and fuel storage tanks	N/A	671,759	737,287
	Total		$ 977,180	$ 1,089,553

Deferred maintenance and repair is maintenance or repair that was not performed when it should have been, or was scheduled to be performed, but was delayed until a future period, due to a lack of resources or funding.

FAA reports deferred maintenance for facilities critical to the operation of our nation's airspace with a Facilities Condition Index score less than 90-95 percent — meaning that they must be maintained at 90-95 percent of prescribed levels or better to be considered in fair condition or better. These facilities include Air Route Traffic Control Centers (ARTCCs), Air Traffic Control Towers (ATCTs), Terminal Radar Approach Control (TRACON) facilities, the William J. Hughes Technical Center (WJHTC), the Mike Monroney Aeronautical Center (MMAC), and long range radar facilities. Deferred maintenance for fuel storage tanks, and unstaffed infrastructure facilities are reported if they have exceeded the expected lifecycle for those assets and the Facilities Condition Index score is not considered for those assets. All of these facilities are capitalized general property, plant, and equipment; and most of these facilities are fully depreciated given that they were constructed more than 50 years ago.

FAA prioritizes the maintenance of facilities by their operational significance within the national airspace system. Tier 1 and Tier 2 facilities are those staffed with FAA employees and contractors that support the busiest airports in the United States. Maintenance and repair activities are prioritized to elevate and sustain the greatest number of those facilities in fair to good condition within available funding appropriated to FAA. Ancillary facilities such as long range radars, unstaffed infrastructure, and fuel storage tanks that support Tier 1 and Tier 2 facilities are given higher priority than those that support Tier 3 facilities. Tier 3 facilities support airports with low operational air traffic volume.

Staffed facilities are assessed for deferred maintenance and lifecycle costs on a rotating basis by a qualified engineering firm. Deferred maintenance for unstaffed facilities is determined based on facility surveys or estimated based on the age of the structure. FAA facilities that are administrative in nature have been excluded from these estimates since the state of those facilities does not have a direct impact on the control of air traffic operations. Personal property housed within these facilities has also been excluded from these

estimates because it is likely to become obsolete as technology continues to advance. The FAA recognizes maintenance and repair expenses as incurred.

The increase in Tier 1 staffed facilities is due to the net addition of four Air Traffic Control Towers and Terminal Approach Control, and seven Air Route Traffic Control Centers facilities whose facility condition scores fell below the acceptable range. The increase in unstaffed infrastructure and fuel storage tanks is attributed to assets rapidly exceeding their lifecycles at a rate greater than the number of assets that were repaired, replaced, or dispositioned during the fiscal year. Airport surveillance radars and navigation and landing systems account for the majority of the increase in unstaffed facilities exceeding their lifecycles.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

SCHEDULE OF BUDGETARY RESOURCES BY MAJOR FUND TYPE

For the year ended September 30, 2018

(Dollars in Thousands)

Unaudited

	Grants-in-Aid for Airports (Trust Fund)	Facilities & Equipment (Trust Fund)	Research, Eng. & Development (Trust Fund)	Aviation Insurance Revolving	Franchise Fund	Operations	Grants-in-Aid for Airports (General Fund)	Other Funds	Combined Total
Budgetary Resources									
Unobligated balance from prior year budget authority, net	$ 143,744	$ 1,564,256	$ 82,524	$ 2,202,903	$ 295,372	$ 242,916	$ –	$ 13,919	$ 4,545,634
Appropriations	–	3,329,589	188,942	–	–	1,360,754	1,000,000	9,896,130	15,775,415
Contract authority	3,350,000	–	–	–	–	–	–	–	3,350,000
Spending authority from offsetting collections	946	142,169	9,226	29,173	453,574	9,046,223	–	–	9,681,311
Total Budgetary Resources	$ 3,494,690	$ 5,036,014	$ 280,692	$ 2,232,076	$ 748,946	$ 10,649,893	$ 1,000,000	$ 9,910,049	$ 33,352,360
Memorandum entries:									
Net adjustments to unobligated balance brought forward, October 1	125,757	44,534	1,358	–	34,685	69,765	–	12	276,111
Status of Budgetary Resources									
New obligations and upward adjustments	$ 3,475,040	$ 2,970,300	$ 155,669	$ 714	$ 528,719	$ 10,363,028	$ 205,198	$ 9,887,361	$ 27,586,029
Unobligated balance, end of year									
Apportioned, unexpired accounts	2,846	2,016,970	120,933	20,678	220,227	187,075	794,802	15,860	3,379,391
Unapportioned, unexpired accounts	16,804	579	–	2,210,684	–	2,384	–	6,828	2,237,279
Unexpired unobligated balance, end of year	19,650	2,017,549	120,933	2,231,362	220,227	189,459	794,802	22,688	5,616,670
Expired unobligated balance, end of year	–	48,165	4,090	–	–	97,406	–	–	149,661
Unobligated balance, end of year (total)	19,650	2,065,714	125,023	2,231,362	220,227	286,865	794,802	22,688	5,766,331
Total Budgetary Resources	$ 3,494,690	$ 5,036,014	$ 280,692	$ 2,232,076	$ 748,946	$ 10,649,893	$ 1,000,000	$ 9,910,049	$ 33,352,360
Outlays, net									
Outlays, net (total)	$ 3,188,615	$ 2,563,764	$ 150,908	$ (28,452)	$ 45,388	$ 948,141	$ 42	$ 10,130,602	$ 16,999,008
Distributed offsetting receipts	–	–	–	–	–	–	–	(1,009,081)	(1,009,081)
Agency outlays, net	$ 3,188,615	$ 2,563,764	$ 150,908	$ (28,452)	$ 45,388	$ 948,141	$ 42	$ 9,121,521	$ 15,989,927

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

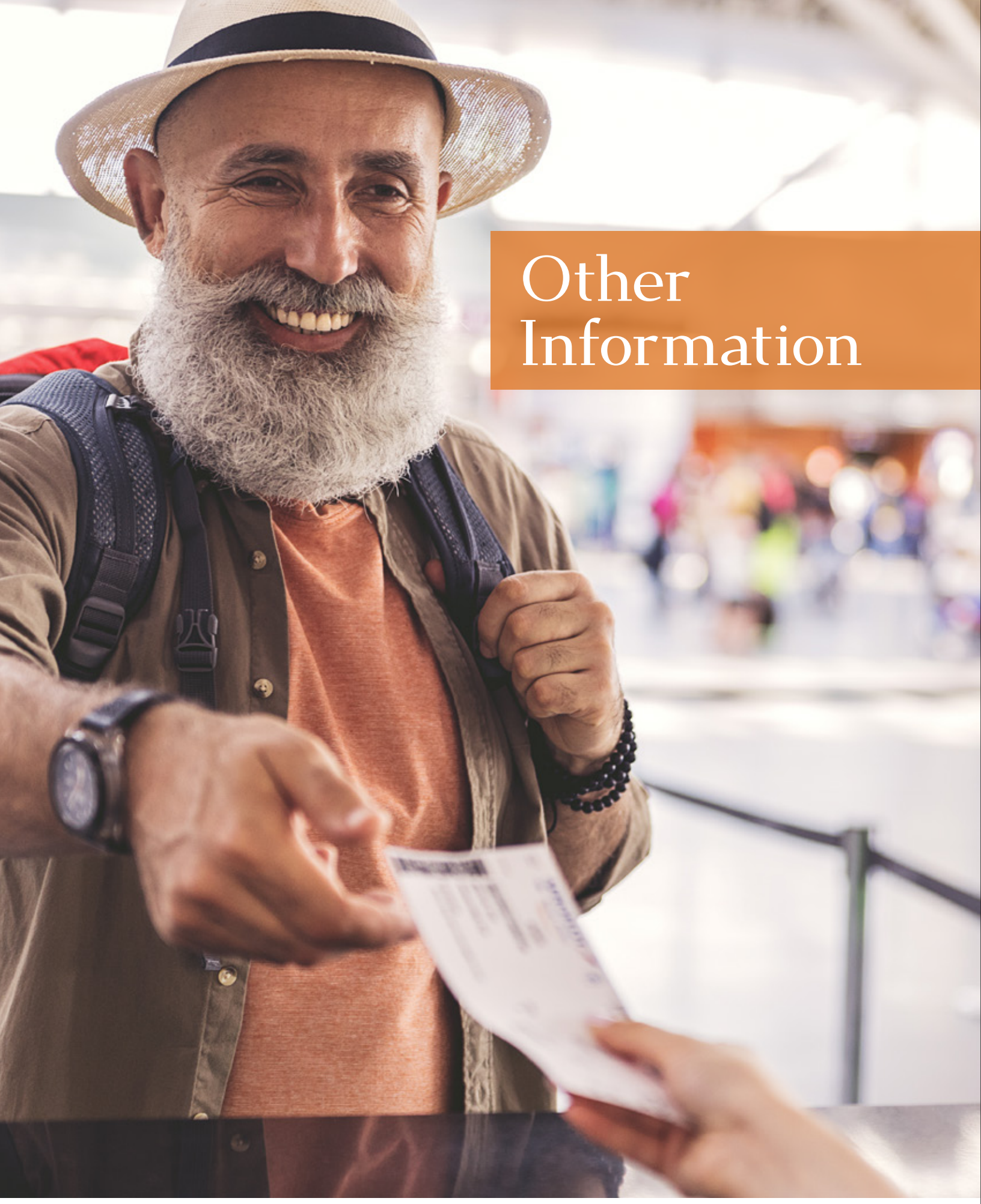
SCHEDULE OF BUDGETARY RESOURCES BY MAJOR FUND TYPE

For the year ended September 30, 2017

(Dollars in Thousands)

Unaudited

	Grants-in-Aid for Airports (Trust Fund)	Facilities & Equipment (Trust Fund)	Research, Eng. & Development (Trust Fund)	Aviation Insurance Revolving	Franchise Fund	Operations	Grants-in-Aid for Airports (General Fund)	Other Funds	Combined Total
Budgetary Resources									
Unobligated balance from prior year budget authority, net	$ 216,173	$ 1,357,423	$ 71,034	$ 2,146,924	$ 287,136	$ 193,418	$ –	$ 8,565	$ 4,280,673
Appropriations	–	2,855,000	176,506	–	–	852,852	–	9,179,964	13,064,322
Contract authority	3,350,000	–	–	–	–	–	–	–	3,350,000
Spending authority from offsetting collections	1,471	135,542	8,346	56,970	486,523	9,313,058	–	–	10,001,910
Total Budgetary Resources	$ 3,567,644	$ 4,347,965	$ 255,886	$ 2,203,894	$ 773,659	$ 10,359,328	$ –	$ 9,188,529	$ 30,696,905
Memorandum entries:									
Net adjustments to unobligated balance brought forward, October 1	200,563	74,724	497	–	26,760	39,799	–	–	342,343
Status of Budgetary Resources									
New obligations and upward adjustments	$ 3,549,657	$ 2,828,243	$ 174,720	$ 991	$ 512,972	$ 10,186,177	$ –	$ 9,174,622	$ 26,427,382
Unobligated balance, end of year									
Apportioned, unexpired accounts	2,067	1,473,642	76,998	35,220	260,687	84,518	–	10,169	1,943,301
Unapportioned, unexpired accounts	15,920	–	–	2,167,683	–	1,189	–	3,738	2,188,530
Unexpired unobligated balance, end of year	17,987	1,473,642	76,998	2,202,903	260,687	85,707	–	13,907	4,131,831
Expired unobligated balance, end of year	–	46,080	4,168	–	–	87,444	–	–	137,692
Unobligated balance, end of year (total)	17,987	1,519,722	81,166	2,202,903	260,687	173,151	–	13,907	4,269,523
Total Budgetary Resources	$ 3,567,644	$ 4,347,965	$ 255,886	$ 2,203,894	$ 773,659	$ 10,359,328	$ –	$ 9,188,529	$ 30,696,905
Outlays, net									
Outlays, net (total)	$ 3,282,446	$ 2,530,252	$ 161,245	$ (56,301)	$ (40,538)	$ 1,093,146	$ –	$ 8,896,023	$ 15,866,273
Distributed offsetting receipts	–	–	–	–	–	–	–	(13,286)	(13,286)
Agency outlays, net	$ 3,282,446	$ 2,530,252	$ 161,245	$ (56,301)	$ (40,538)	$ 1,093,146	$ –	$ 8,882,737	$ 15,852,987



Other Information

Summary of Financial Statement Audit and Management Assurances

Financial Statement Audit Summary

Table 1 is a summary of the results of the independent audit of the FAA's consolidated financial statements by the agency's auditors in connection with the FY 2018 audit.

TABLE 1: Summary of Financial Statement Audit

Audit Opinion	FY 2018-unmodified				
	FY 2017-unmodified				
Restatement	No				
Material Weakness	Beginning Balance	New	Resolved	Consolidated	Ending Balance
Environmental Liabilities	1	0	1	0	0
Total Material Weaknesses	**1**	**0**	**1**	**0**	**0**

Management Assurances Summary

Table 2 is a summary of management assurances related to the effectiveness of internal control over the FAA's financial reporting and operations, and its conformance with financial management system requirements under Sections 2 and 4, respectively, of the Federal Managers' Financial Integrity Act (FMFIA) of 1982. The last portion of Table 2 summarizes the FAA's compliance with the Federal Financial Management Improvement Act (FFMIA).

TABLE 2: Summary of Management Assurances

Effectiveness of Internal Control over Financial Reporting (FMFIA § 2)						
Statement of Assurance	Unmodified					
Material Weakness	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
Environmental Liabilities	1	0	1	0	0	0
Total Material Weaknesses	**1**	**0**	**1**	**0**	**0**	**0**
Effectiveness of Internal Control over Operations (FMFIA § 2)						
Statement of Assurance	Unmodified					
Material Weakness	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
	0	0	0	0	0	0
Total Material Weaknesses	**0**	**0**	**0**	**0**	**0**	**0**
Compliance with Federal Financial Management System Requirements (FMFIA § 4)						
Statement of Assurance	Federal Systems conform to financial management system requirements					
Non-Compliance	Beginning Balance	New	Resolved	Consolidated	Reassessed	Ending Balance
	0	0	0	0	0	0
Total non-compliances	**0**	**0**	**0**	**0**	**0**	**0**

Compliance with Section 803(a) of the Federal Financial Management Improvement Act (FFMIA)		
	Agency	Auditor
1. Federal Financial Management System Requirements	No lack of compliance noted	No lack of compliance noted
2. Applicable Federal Accounting Standards	No lack of compliance noted	No lack of compliance noted
3. U.S. Standard General Ledger at Transaction Level	No lack of compliance noted	No lack of compliance noted

Payment Integrity

The Improper Payments Information Act (IPIA) of 2002 (P.L. 107-300) requires agencies to review their programs and activities to identify those susceptible to significant improper payments. IPIA was amended on July 22, 2010 by the Improper Payments Elimination and Recovery Act (IPERA) of 2010 (P. L. 111-204). IPERA strengthens the requirements for government agencies to carry out cost-effective programs for identifying and recovering overpayments, also known as "recapture auditing." After IPERA, the FAA continued implementing the most recent amendment to IPIA, the Improper Payments Elimination and Recovery Improvement Act (IPERIA) of 2012 (Public Law 112-248). For purposes of this reporting, the acronym "IPIA" refers to "IPIA, as amended by IPERA and IPERIA."

Office of Management and Budget (OMB) Circular A-123, Appendix C, Requirements for Effective Measurement and Remediation of Improper Payments, provides guidance on the implementation of IPIA. OMB Circular A-123, Appendix C defines an improper payment as any payment that should not have been made or that was made in an incorrect amount under statutory, contractual, administrative, or other legally applicable requirements. Incorrect amounts are overpayments or underpayments that are made to eligible recipients including inappropriate denials of payment or service, any payment that does not account for credit for applicable discounts, payments for the incorrect amount, and duplicate payments. An improper payment also includes any payment that was made to an ineligible recipient or for an ineligible good or service, or payments for goods or services not received (except for such payments authorized by law). In addition, when an agency's review is unable to discern whether a payment was proper because of insufficient or lack of documentation, this payment must also be considered an improper payment.

OMB issued memorandum M-13-07, Accountability for Funds Provided by the Disaster Relief Appropriations Act, dated March 12, 2013 (M-13-07) that requires agencies to manage disaster relief funds with the same discipline and rigor as programs that are traditionally designated as susceptible to significant improper payments under IPIA. As required by M-13-07, FAA sampled and tested these funds but received a waiver from further testing due to immaterial funding levels remaining.

For more detailed information on improper payments as well as information reported in past FAA Performance and Accountability Reports (PAR) but not included in the FY 2018 PAR, see ***https://paymentaccuracy.gov/***.

Federal Aviation Administration Process

The FAA's process for complying with IPIA and OMB Circular A-123, Appendix C, consists of the following steps:

1) Review program and activities to identify those susceptible to significant improper payments
2) Obtain a statistically valid estimate of the annual amount of improper payments in programs and activities for those programs identified as susceptible to significant improper payments
3) Implement a plan to reduce erroneous payments
4) Report estimates of the annual amounts of improper payments in programs and activities, and progress in reducing occurrence of future improper payments

For FY 2018 reporting, the FAA did not conduct detailed improper payment testing. OMB granted our previous risk areas waivers from further testing. In addition, our last risk assessment conducted in FY 2017 did not identify any high risk areas deemed susceptible to improper payments under IPIA.

According to IPIA, and OMB A-123, Appendix C, if a program has been reporting improper payment estimates, but has documented a minimum of two consecutive years of improper payments that are below the thresholds set by IPIA, the agency may request relief from the annual reporting requirements for this program. This request must include an assertion from the agency's Office of Inspector General (OIG) that it concurs with the agency's request for relief. In FY 2016, DOT requested that OMB relieve the FAA's Airport Improvement Program (AIP) from improper payment reporting. In its written request, AIP adequately demonstrated that the program had at least two consecutive years of improper payments reporting below the IPIA thresholds. In addition, the request included the requisite assertion from the agency's OIG that it concurs with the agency's request for relief. OMB approved this request on July 19, 2016. Therefore, the FAA's FY 2018 PAR does not include any AIP improper payment reporting.

I. Recapture of Improper Payments Reporting

DOT's Office of Financial Management (OFM) performed a department-wide payment recapture audit, which included FAA's programs and activities. OFM worked with the FAA's Enterprise Services Center (ESC) to initiate recovery of any FAA overpayments and identify payment process weaknesses. Since the overpayments identified in FY 2018 were immaterial amounts, DOT determined that it was not cost-effective to report them by DOT agency (i.e., FAA) and will therefore report results at the department-wide level in the DOT's FY 2018 Agency Financial Report.

II. Agency Reduction of Improper Payments with the Do Not Pay Initiative

FAA and payment recipients are aware of the Do Not Pay–Improper Payments Initiative (support including a business center and a free analytics tool developed by the U.S. Department of the Treasury to help federal agencies detect and prevent improper payments). At the DOT level, commitment to prioritizing the Do Not Pay Initiative can be seen through the increased integration of the Do Not Pay Business Center capabilities into our existing internal controls. The Do Not Pay initiative is managed at the departmental level. More information can be found in the DOT's Agency Financial Report.

Fraud Reduction Report

The Fraud Reduction and Data Analytics Act of 2015 (FRDA) requires the Office of Management and Budget (OMB) to issue guidelines that federal agencies must use to establish financial and administrative controls to address fraud. Specifically, federal agencies must have controls to identify and assess fraud risks and controls to prevent, detect, and respond to fraud, including improper payments.

The FRDA specifies that OMB's guidelines incorporate the leading practices identified in a report published by the Government Accountability Office on July 28, 2015, entitled "Framework for Managing Fraud Risks in Federal Programs."

DOT will report department-wide progress toward these leading practices in its FY 2018 Agency Financial Report, which will be published on November 15, 2018. The FAA's FRDA activities are incorporated as part of the DOT's 2018 Agency Financial Report.

DOT is employing a phased approach to establish a formal risk management program in accordance with FRDA requirements. The approach enables it to utilize a maturity model to build out and adapt the program over time. DOT will implement FRDA requirements in three phases:

- **Phase 1**: Develop DOT's Fraud Risk Management Implementation Plan
- **Phase 2**: Establish DOT's Fraud Risk Management Program
- **Phase 3**: Implement DOT's Fraud Risk Management Framework

In FY 2018, DOT updated the Fraud Risk Management Implementation Plan and continued efforts to gather information on fraud, waste, and abuse involving DOT programs or activities. The plan provides a schedule and milestones for identifying risks and vulnerabilities to fraud. The plan also incorporates the GAO's Fraud Risk Management Framework.

Reduce the Footprint

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Unaudited

In FY 2013, the Office of Management and Budget (OMB) enacted a "Freeze the Footprint" policy to control utilization and spending associated with real property. Under subsequent "Reduce the Footprint" guidance, agencies must reduce the total square footage of their domestic office and warehouse space compared to a baseline of FY 2015 reported levels. The goal is to control taxpayer expense by reducing real property costs through reduction of square footage and leasing costs while using space more efficiently.

Over the past five years, the DOT has enhanced its real property stewardship by moving toward an approach of managing its entire portfolio of real estate collectively — across all component operating administrations of DOT rather than lease-by-lease, building-by-building, or by operating administration (such as the FAA). We have supported the "Freeze the Footprint" and now "Reduce the Footprint" initiatives as described in the DOT-wide Real Property Efficiency Plan, by actively pursuing activities which increase real property efficiencies. We have completed space reduction projects in each fiscal year since the implementation of Freeze the Footprint and anticipate further space reductions in the future. Some of the significant efforts are as follows:

- FAA is participating in DOT-wide, cross-organizational reviews of administrative space, to identify space consolidation opportunities. We are doing this through administrative space portfolio reviews at the FAA level, and business case analysis of office space requirements. These efforts have produced completed projects such as the FAA's regional office consolidations/reductions of space in Anchorage, Fort Worth and Atlanta; in FY 2018, the completion of a regional office consolidation in Seattle, downsizing moves in Los Angeles and Orlando, and a downsizing in Washington, DC; and, continued planning toward consolidation of FAA's headquarters leases in Chicago, Kansas City and Jamaica-Queens, NY.
- To control lease costs, new and renewing leases have been placed under increased scrutiny to ensure assets are being efficiently utilized, assets support a broader portfolio strategic plan, and negotiated lease terms are competitive with market rates.
- The FAA has continued disposing of certain legacy unmanned navigation and communication sites, thereby reducing the inventory of real property assets and associated operating costs.

In its latest Real Property Efficiency Plan, DOT has established annual office space reduction targets for FY 2019-2023. These targets are fully attributable to FAA planned projects:

Fiscal Year	Targeted Office Space *(Thousand Square Feet)*	FAA Office-inventory *(Thousand Square Feet)*
2019	45	6,241
2020	17	6,224
2021	56	6,168
2022	15	6,153
2023	15	6,138

Table 1 is a summary of the total square footage of Reduce the Footprint General Services Administration (GSA), FAA direct leased, and FAA owned office and warehouse assets in FY 2017 as compared to the FY 2015 baseline, and shows that the FAA's space has decreased by 669 thousand square feet over that time period. This substantial decrease was driven largely by the following projects: termination of the leases at the FAA Printing Facility in Lanham, MD (considered office by GSA), lease termination at Atlanta, and a space consolidation project at Fort Worth including the Southwest Regional Office and several nearby leases. Table 2 presents the annual operating costs results, which includes rent for direct leased buildings and annual operations and maintenance costs at owned and leased buildings. Approximately $7 million of the increase from FY 2016 to 2017 is due to data adjustments in the operations and maintenance costs at owned office and warehouse buildings determined from facility surveys and not reflective of an actual increase in these costs.

TABLE 1: Reduce the Footprint Progress (Square Footage)
FY 2015 Baseline to FY 2017
GSA, FAA Owned and Direct Lease Real Property
(Square Footage in Thousands)

	FY 2015	FY 2016	FY 2017	FY 2015–17 Change
Square Footage	9,272*	8,561	8,637	(635)**

* *FY 2015 included both old and new Southwest Regional Office buildings as move was currently in progress. Also note that FY 2015 Reduce the Footprint baseline amount differs from the FY 2015 Freeze the Footprint ending result.*

** *While there was a 76k square foot increase from FY 2016 to FY 2017, 73k square feet is attributable to data correction of 2 assets. Data cannot be corrected without also affecting the Reduce the Footprint results.*

TABLE 2: Reduce the Footprint Progress (Annual Operations & Maintenance)
FY 2015 Baseline to FY 2017
Annual Operating Costs of Owned and Direct Leased Real Property of Reduce the Footprint Classified Assets
(Dollars in Thousands)

	FY 2015	FY 2016	FY 2017	FY 2015–17 Change
Operation and Maintenance Costs*	$ 86,436*	$ 84,818	$ 94,853	$ 8,417

* *Operating and Maintenance costs of individual owned assets are modelled for Federal Real Property Reporting. The FY 2017 increase is primarily a result of adjustments to reported values based on updated facility survey information.*

Grants Oversight and New Efficiency

The Grants Oversight and New Efficiency Act requires agencies to provide a summary of the total number of federal grant and cooperative agreement awards and balances not closed out, but for which the period of performance ended more than two years prior. Following are grant recipient categories and balances which meet the current reporting criteria as of September 30, 2018.

Category	2–3 Years	>3–5 Years	>5 Years
Number of Grants/ Cooperative Agreements with Zero Dollar Balances		4	5
Number of Grants/ Cooperative Agreements with Undisbursed Balances		5	
Total Amount of Undisbursed Balances *(Dollars in Thousands)*	$ 0	$ 3,205	$ 0

In FY 2018, the FAA continued to review expired grants and made significant progress closing out grants. In the past year, the FAA reduced the amount of expired open grants from $14.8 million to $3.2 million, resulting in a 78% overall reduction. There are three key management challenges that lead to delays in grant closeouts. These challenges include:

- Grant recipient has an audit or pending legal action.
- Grant recipients' untimely submission of closeout documentation to the FAA.
- Grants officer training for new FAA personnel.

FAA continues to monitor grants to ensure that recipients are providing closeout documentation in a timely manner. The monitoring includes review of progress, financial, audit, and other periodic reports. FAA also continues to emphasize closing out older grants.

Right: View of Mt. Rainier, Wash., from a Southwest Airlines flight.

Civil Monetary Penalty Inflation Adjustments

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Unaudited

The Federal Civil Penalties Inflation Adjustment Act of 2015 (2015 Act), Public Law 114-74, requires agencies to make regular and consistent inflationary adjustments of civil monetary penalties to maintain their deterrent effect. Following are the civil penalties that the FAA may impose, the authority for imposing the penalty, the dates of inflation adjustments, and the current penalty level.

Statutory Authority	Penalty	Year Enacted	Latest year of adjustment (via statute or regulation)	Current Penalty	Location for Penalty Update Details
49 U.S.C. 5123(a), subparagraph (1)	Violation of hazardous materials transportation law	1975	2017	$78,376	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 5123(a), subparagraph (2)	Violation of hazardous materials transportation law resulting in death, serious illness, severe injury, or substantial property destruction	2005	2017	$182,877	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 5123(a), subparagraph (3)	Violation of hazardous materials transportation law relating to training	2005	2017	$471–$78,376	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(1)	Violation by a person other than an individual or small business concern under 49 U.S.C. 46301(a)(1)(A) or (B)	1958	2017	$32,666	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(1)	Violation by an airman serving as an airman under 49 U.S.C. 46301(a)(1)(A) or (B) (but not covered by 46301(a)(5)(A) or (B))	1958	2017	$1,437	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(1)	Violation by an individual or small business concern under 49 U.S.C. 46301(a)(1)(A) or (B) (but not covered in 49 U.S.C. 46301(a)(5))	1958	2017	$1,437	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(3)	Violation of 49 U.S.C. 47107(b) (or any assurance made under such section) or 49 U.S.C. 47133	1958	N/A	Penalty is increased to a dollar amount more than the otherwise applicable maximum (shown on the line above), not to exceed 3 times the amount of revenues that are used in violation of such section.	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(5)(A)	Violation by an individual or small business concern (except an airman serving as an airman) under 49 U.S.C. 46301(a)(5)(A)(i) or (ii)	2003	2017	$13,066	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)

Statutory Authority	Penalty	Year Enacted	Latest year of adjustment (via statute or regulation)	Current Penalty	Location for Penalty Update Details
49 U.S.C. 46301(a)(5)(B)(i)	Violation by an individual or small business concern related to the transportation of hazardous materials	2003	2017	$13,066	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(5)(B)(ii)	Violation by an individual or small business concern related to the registration or recordation under 49 U.S.C. chapter 441, of an aircraft not used to provide air transportation	2003	2017	$13,066	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(5)(B)(iii)	Violation by an individual or small business concern of 49 U.S.C. 44718(d), relating to limitation on construction or establishment of landfills	2003	2017	$13,066	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(a)(5)(B)(iv)	Violation by an individual or small business concern of 49 U.S.C. 44725, relating to the safe disposal of life-limited aircraft parts	2003	2017	$13,066	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46301(b)	Tampering with a smoke alarm device	1987	2017	$4,194	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46302	Knowingly providing false information about alleged violation involving the special aircraft jurisdiction of the United States	1984	2017	$22,957	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 17,097 (Apr. 10, 2017)
49 U.S.C. 46318	Interference with cabin or flight crew	2000	2017	$34,731	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 46319	Permanent closure of an airport without providing sufficient notice	2003	2017	$13,066	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
49 U.S.C. 47531	Violation of 49 U.S.C. 47528-47530, relating to the prohibition of operating certain aircraft not complying with stage 3 noise levels	1990	N/A	See 49 U.S.C. 46301(a)(1)(A) and (a)(5), above	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)
51 U.S.C. 50917	Violation of a requirement of the Commercial Space Launch Act, as amended, a regulation issued under the Act, or any term or condition of a license or permit issued or transferred under the Act	1984	2017	$229,562	Federal Register: 82 Fed. Reg. 17,097 (Apr. 10, 2017) 82 Fed. Reg. 31,440 (July 7, 2017) (correction of effective date)

Administrative Services Franchise Fund

Background

The Department of Transportation and Related Agencies Appropriation Act of 1997 authorized the FAA to establish an Administrative Services Franchise Fund (Franchise Fund). Through the Franchise Fund, the FAA is able to competitively provide a wide variety of support services to various government entities. This results in the consolidation and shared use of like functions and promotes economies of scale. All of these measures help the government use its resources more efficiently.

The FAA's Franchise Fund is composed of several programs, through which it offers many different services. These services include administrative services such as accounting, travel, duplication, multimedia, and information technology. The Franchise Fund also provides logistics and material management. Other services include acquisition, aircraft maintenance, international training, and management training. The Franchise Fund's major customers are programs in the FAA's lines of business, other Department of Transportation (DOT) entities, non-DOT government agencies, and international government entities.

Description of Programs and Services

The Enterprise Services Center (ESC) is based at the Mike Monroney Aeronautical Center (Aeronautical Center) in Oklahoma City, OK. The ESC is a full service financial management provider. The efficiencies and economies of scale created by this integration make it an attractive option to government customers seeking a provider of financial management services. There are three components of the ESC:

- Enterprise System—configuration and support of application software and databases
- Financial Operations—transaction processing, financial reporting, and analysis services
- Information Technology—hosting, telecommunications, information system security, and end-user support services.

The ESC currently provides financial management services to all DOT agencies, and a number of other non-DOT Executive Branch agencies.

During FY 2005, the Office of Management and Budget (OMB) selected ESC as a Financial Management Center of Excellence (COE). As a COE, the ESC has the ability to compete to provide financial management services for other government agencies.

In January 2009, the OMB named the ESC one of only four government-wide information systems security shared-service providers. In May 2014, the OMB designated the ESC one of four government-wide financial management shared service providers to provide core accounting and other services to federal agencies. Using a financial management shared service provider helps customer agencies reduce the risks inherent in new system implementation, allows for faster and less expensive technological innovation, and provides long-term cost savings. A shared service provider allows customer agencies to focus resources directly on mission-related efforts.

The FAA Logistics Center is also located at the Aeronautical Center in Oklahoma City and provides comprehensive logistics support and a highly sophisticated level of maintenance and repair services to ensure the safety of the flying public, to satisfy the critical needs of the nation's airspace system, and to meet related requirements. Services include materiel management (e.g., provisioning, cataloging, acquisition, inventory management, inventory supply), reliable and cost-effective depot-level repair of line replaceable units, life cycle and performance cost analysis, logistics automation, distribution services, disposal of items no longer required, and technical support to repair and maintain the nation's airspace and related equipment. The Logistics Center also maintains the Department of Homeland Security's (DHS) U.S. Customs and Border Protection border surveillance systems, including more than 80 mobile surveillance systems and fixed towers. It provides supply chain support, depot maintenance support, engineering, and other systems support to the DHS.

Flight Program Operations are also based at the Aeronautical Center. This group provides total aircraft support, including maintenance, quality assurance, and overall program management, for the FAA's uniquely equipped flight inspection aircraft fleet, as well as other customer aircraft, including the U.S. Marshals Service and the U.S. Army. Flight Program Operations offers preventative services, aircraft repair,

overhaul, and modification services, as well as reliability and maintainability studies. This service provider has the flexibility to provide either full or partial support, depending upon customer requirements, ranging from short-term preventative maintenance or one-time engineering tasks to more involved activities, such as a full complement of maintenance services, complete with quality assurance and engineering support.

The FAA Leadership and Learning Institute (FLLI) provides non-technical training in support of the FAA mission. This institute designs and delivers face-to-face centralized training both onsite and at field locations, as well as web based training. The federal, professional, and local communities also recognize the FLLI as a premier resource for leadership and teambuilding training.

The International Training Division (ITD), an element of the FAA Academy, is located at the Aeronautical Center in Oklahoma City, OK, and delivers technical assistance and training to enhance international aviation safety and security while promoting U.S. aviation system technologies, products, and services overseas. The products and services of the ITD include training program management, instructional services, training design, development, and revision, technical training evaluations, and consulting services tailored to meet the specifically defined needs of the FAA and its international customers.

The Franchise Fund also houses a branch of acquisition services that supports the acquisition activities of the Franchise Fund organizations.

Below: Passenger check flight info on October 5, 2011 in Newark, New Jersey. Newark airport near New York City is 10th busiest in U.S.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

FRANCHISE FUND

Condensed Information

ASSETS, LIABILITIES, AND NET POSITION

(Dollars in Thousands)

Unaudited

	As of September 30	
	2018	2017
ASSETS		
Fund balance with Treasury	$ 411,496	$ 456,885
Accounts receivable, net	28	10
Inventory and related property, net	655,981	640,739
General property, plant, and equipment, net	40,712	44,007
Other	860	2,080
Total assets	$ 1,109,077	$ 1,143,721
LIABILITIES		
Accounts payable	$ 21,938	$ 21,793
Advances from others	313,445	341,131
Employee related	18,740	19,015
Other	515	515
Total liabilities	354,638	382,454
NET POSITION		
Cumulative results of operations	754,439	761,267
Total net position	754,439	761,267
Total liabilities and net position	$ 1,109,077	$ 1,143,721

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

FRANCHISE FUND

Condensed Information

REVENUES AND EXPENSES

(Dollars in Thousands)

Unaudited

	For the years ended September 30	
	2018	2017
Enterprise Services Center		
Revenues	$ 158,618	$ 156,205
Expenses	186,955	184,205
Profit (loss)	(28,337)	(28,000)
Corp Services		
Revenues	6	197
Expenses	(638)	(1,910)
Profit (loss)	644	2,107
Aircraft Maintenance and Engineering Group		
Revenues	53,890	55,993
Expenses	64,282	63,090
Profit (loss)	(10,392)	(7,097)
FLLI		
Revenues	8,962	9,038
Expenses	10,253	10,658
Profit (loss)	(1,291)	(1,620)
International		
Revenues	2,906	3,080
Expenses	4,159	4,282
Profit (loss)	(1,253)	(1,202)
FAA Logistics Center		
Revenues	289,428	284,938
Expenses	316,969	315,916
Profit (loss)	(27,541)	(30,978)
Acquisitions		
Revenues	3,087	3,102
Expenses	5,645	5,473
Profit (loss)	(2,558)	(2,371)
Total Consolidated		
Revenues	516,897	512,553
Expenses	587,625	581,714
Profit (loss)	$ (70,728)	$ (69,161)

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

FRANCHISE FUND

Condensed Information

FINANCING SOURCES AND NET POSITION

(Dollars in Thousands)

Unaudited

	Cumulative results of operations As of September 30	
	2018	2017
Beginning balance, net position	$ 761,267	$ 771,528
Financing sources		
Transfers-in/out without reimbursement	1,038	(841)
Imputed financing from costs absorbed by others	62,862	59,741
Total financing sources	63,900	58,900
Profit (loss)	(70,728)	(69,161)
Ending balance, net position	$ 754,439	$ 761,267

Summary of Inspector General's Top Management and Performance Challenges

The Reports Consolidation Act of 2000 requires the Inspector General (IG) to identify and report annually on the most serious management and performance challenges that federal agencies face. The Department of Transportation (DOT) IG's report highlights urgent issues facing DOT. The IG's report that summarizes the challenges DOT will face in FY 2019 is expected to be issued within two weeks after publication of this report, and will be available on the IG's website at ***https://www.oig.dot.gov/*** and on the FAA's website at ***http://www.faa.gov/about/plans_reports***.

Approximately a year ago, on November 15, 2017, the IG issued its memorandum identifying the top management and performance challenges that DOT would be facing in FY 2018. The IG's memorandum is provided below, and while it is titled "DOT's Fiscal Year 2018 Top Management Challenges," the report addresses both management and performance challenges for the department. The pages immediately following contain a summary prepared by the FAA of the challenges specifically applicable to the agency and the actions it took during FY 2018 to address those challenges. The FAA provides this summary in order to present a comprehensive perspective on the FAA's FY 2018 performance activities.

U.S. DEPARTMENT OF TRANSPORTATION
OFFICE OF INSPECTOR GENERAL

Memorandum

Date: November 15, 2017

Subject: INFORMATION: DOT's Fiscal Year 2018 Top Management Challenges
Report No. PT2018005

From: Calvin L. Scovel III
Inspector General

To: The Secretary
Deputy Secretary

Our Nation's businesses, public services, communities, and citizens depend on a safe and efficient transportation system. The Department of Transportation (DOT) invests nearly $80 billion each year to build, maintain, and enhance this system to support both domestic and global interests and improve our quality of life. Our office helps support the Department's mission through audits and investigations that identify improvements to the management and execution of its diverse transportation programs. As required by law, we report annually on the Department's most significant challenges to meeting its mission. Our report aims to provide a forward-looking assessment for the coming fiscal year to aid DOT's agencies in focusing attention on the most serious management and performance issues. This year, in addition to focusing on DOT-wide management issues, the Department faces the unique challenge of planning multiple recovery efforts to restore vital transportation services in communities devastated by major hurricanes.

As Secretary Elaine L. Chao has affirmed, safety remains the Department's top priority. Although DOT continues to demonstrate a strong commitment to improving the safety of our airspace, roads, pipelines, railways, and transit, key challenges remain. For example, while overseeing the safe operation of about 45,000 commercial flights a day, DOT must enhance its collaboration with industry and other stakeholders to address safety vulnerabilities such as cockpit security, the reliability of aircraft parts, and the movement of aircraft and other vehicles on airport runways. The growing use of Unmanned Aircraft Systems (UAS) and their integration into the National Airspace System (NAS) also present some of the most significant safety challenges faced by DOT and the Federal Aviation Administration (FAA) in decades.

2018 Top Management Challenges, Department of Transportation

At the same time, the Department must continue to target oversight to the greatest safety risks to our transit systems, network of highway bridges and tunnels, and pipelines. In particular, the Department faces challenges in taking on an enhanced oversight role for State or regional transit agencies while working to address numerous pipeline and hazardous materials safety recommendations and mandates from Congress, our office, and others. Effectively using data to identify and mitigate risks is also a key challenge in DOT's efforts to improve highway and vehicle safety. Important focus areas include removing unsafe vehicles and high-risk drivers from roads and harnessing new technologies, such as Positive Train Control, to improve safety.

Meeting our Nation's transportation needs both now and in the future also requires adapting to evolving challenges and risks. A key watch area remains the Department's efforts to modernize the NAS to prepare for the anticipated growth in air travel. In particular, FAA will need to mitigate risks as it implements new, complex capabilities while also enhancing existing infrastructure that air traffic controllers rely on to manage traffic. In addition, rising demands on the surface transportation system and constraints on public resources have prompted DOT to identify new sources to fund needed improvements to surface infrastructure projects. The Department has sought greater private sector involvement through public-private partnerships and will be challenged to ensure private partners conform to Federal requirements and meet project delivery goals. As DOT works to address growing infrastructure needs, it must also develop plans to restore damaged transportation systems in Texas, Florida, and Puerto Rico in the wake of catastrophic hurricanes. It will be important for the Department to draw from lessons learned from prior disaster recovery efforts to carry out effective recovery projects, build in resiliency improvements, and protect taxpayer funds.

The Department also faces the challenge of reshaping the programs and policies that protect all its transportation systems in the face of increasing cyberattacks and security breaches. To minimize threats against DOT's more than 450 information systems and resolve existing vulnerabilities, DOT must ensure it can recruit and maintain a skilled workforce that can adapt to evolving threats and plan effective cybersecurity strategies.

Finally, the Department must work diligently to maximize and protect the billions of dollars it invests in reaching these and other transportation goals. DOT has multiple opportunities to better manage and oversee its major acquisitions and grants, especially those of FAA, its largest buyer, with over $5.5 billion in annual obligations for goods and services. Ensuring stewardship of taxpayer dollars also depends on strengthening its protections against fraud, waste, and abuse—including better leveraging the fraud defense mechanisms it has at hand.

We considered several criteria in identifying the Department's top management challenges for fiscal year 2018, including their impact on safety, documented

2018 Top Management Challenges, Department of Transportation

vulnerabilities, large dollar implications, and the ability of the Department to effect change. In the enclosed report, we identify and discuss the following challenges:

- Maintaining Safety and Oversight of a Diverse and Complex Aviation Industry
- Ensuring the Safety and Reliability of Surface Transportation Infrastructure
- Using Data-Driven Approaches and Technology To Reduce Highway and Rail Safety Risks
- Keeping Modernization on Track and Increasing User Benefits While Fostering Resiliency in the National Airspace System
- Integrating Unmanned Aircraft Systems and Other New Airspace Users Into the National Airspace System
- Maximizing Surface Infrastructure Investments Through Innovative Financing, Improved Project Delivery, and Effective Oversight
- Recalibrating DOT's Cybersecurity Posture To Mitigate Evolving Cybersecurity Threats and Uncertainties
- Enhancing the Department's Management and Oversight of Acquisitions To Achieve Results and Save Taxpayer Dollars
- Improving Mechanisms for Deterring Fraud, Waste, and Abuse
- Managing Response, Recovery, and Rebuilding Efforts for National Disasters and Emergencies

As always, we will continue to work closely with DOT officials to support the Department's efforts to improve safety, enhance efficiency, and protect its resources. We appreciate the Department's commitment to taking prompt actions in response to the challenges we have identified. The final report and the Department's response will be included in the Department's Annual Financial Report, as required by law.

If you have any questions regarding this report, please contact me at (202) 366-1959. You may also contact Joseph W. Comé, Principal Assistant Inspector General for Auditing and Evaluation, at (202) 366-0377.

#

cc: DOT Audit Liaison, M-1

2018 Top Management Challenges, Department of Transportation

Of the 31 management challenges identified by the Inspector General for FY 2018, DOT tasked the FAA with addressing the following 13 challenges:

- **Enhancing interagency communication and working with stakeholders to improve cockpit safety and security**
- **Keeping pace with a dynamic and evolving regional airline industry**
- **Strengthening the investigative process and proactively removing suspected unapproved parts from the aviation supply chain**
- **Addressing reports of increased runway safety incidents**
- **Mitigating risks with high-priority NextGen investments and delivering benefits to airspace users**
- **Keeping key air traffic infrastructure on track**
- **Strengthening the resiliency of the national airspace system**
- **Meeting the regulatory challenges of an evolving and diverse commercial UAS industry**
- **Developing strategies for overseeing operations and mitigating risks as UAS integration continues**
- **Managing commercial space launch activities as the industry grows and expands**
- **Increasing FAA's ability to withstand cyberattacks and enhancing DOT coordination with FAA**
- **Increasing management attention to FAA acquisitions—the Department's largest buyer**
- **Enhancing oversight of multiple-award contracts and other types of agreements to successfully manage risk**

After the Inspector General's report was issued, the FAA developed an Action Plan that listed actions and timelines for addressing each of the challenges. The FAA then submitted an "Actions Taken" report to DOT that describes the progress the FAA made throughout FY 2018 in addressing each of the challenges. These Actions Taken reports, initial Action Plans, and the Inspector General's comprehensive report identifying top management challenges for FY 2018 are posted on FAA's website at ***http://www.faa.gov/about/plans_reports/*** under the DOT IG Top Management Challenges section.

Enhancing Interagency Communication and Working with Stakeholders to Improve Cockpit Safety and Security

Why is this issue significant?

Incidents in 2012 and 2015 in the United States and abroad have drawn attention to flight deck safety and security, including securing cockpit doors. Enhanced communication with key industry stakeholders will be critical to FAA's efforts to ensure the safety of the traveling public.

Actions taken for FY 2018:

- The FAA published guidance requiring an annual meeting for all principal inspectors who have oversight of 14 CFR Parts 125, 121, and 135 operators. The guidance was published in Flight Standards Order 8900.1, Volume 9, Chapter 4, Section 1 on June 13, 2018. In addition, we published a Notice placing emphasis on the new guidance.
- On October 23, 2017, two aviation safety inspectors from FAA met with members of the Association of Flight Attendants -Communication Workers of America (AFA-CWA) attending a 3-day Intermediate Air Safety, Health and Security Department training event.
  - The inspectors were able to confirm the AFA-CWA was the union that provided the results of a "flight attendant union survey" on flight deck security to the DOT Inspector General (OIG).
  - The inspectors spoke with the AFA Air Safety, Health and Security Coordinator and provided an interactive briefing to AFA-CWA attendees on the Inspector General's report.
  - During the interactive briefing, the training attendees did not display concern with regard to complacency during the flight deck door transition. The group was more concerned about standardization within their own airlines on proper procedures.
- The FAA contacted the AFA-CWA Director of the Air Safety, Health and Security Department to ask if they would share the survey and discuss the results. On November 3, 2017, the AFA-CWA Director informed the FAA they would not share the survey and its results, and advised approaching the OIG with any further questions. The OIG subsequently informed the FAA the survey could not be shared without permission from the AFA-CWA.

- The responses from AFA-CWA membership during the interactive briefing and the unwillingness of their leadership to share their survey results led the FAA to conclude there is not any significant concern on flight deck door transitions from flight attendants. The FAA believes it exercised due diligence trying to validate and act on the OIG's concerns.
- After release of the OIG's audit, the FAA met with the Transportation Security Administration (TSA) to review the audit results and discuss a future meeting with industry. Based on the interaction with the AFA-CWA members and its leadership, the FAA believes there is no need to meet further with TSA on this issue, but we continue to meet regularly with TSA on all issues that arise.
- The OIG reported there was concern among air carriers on flight deck security. The FAA took this concern seriously and agreed with the OIG's recommendation to meet with the air carrier industry, along with the TSA, and discuss concerns.
  - In February 2018, the FAA sought to meet with two major air carrier industry associations and their operations councils: Airlines for America and the Regional Airlines Association. Despite our attempts, neither group made themselves available for such a meeting.
  - The FAA met separately with Delta Airlines, which is not a member of Airlines for America. Delta's representatives agreed with the assessment that industry was performing security measures well and had nothing substantial to add to the FAA's combined efforts.
  - The FAA concluded from these responses that there was no significant concern regarding flight deck security, much less any interest in addressing it. The FAA believes it exercised due diligence trying to validate and act on the OIG's concerns.

Actions remaining and expected completion date:

- The FAA did not concur with two of the OIG's recommendations (#2 and #4). These positions have not changed.

Results or expected results:

Meetings between FAA principal inspectors and TSA principal security inspectors have proven productive. All actions above are completed. The OIG accepted the FAA responses on four of the six recommendations and has closed them out.

Keeping Pace With a Dynamic and Evolving Regional Airline Industry

Why is this issue significant?

Regional air carriers have been a growing industry segment over the last several years and now operate over 10,000 flights a day and serve approximately 20 percent of all airline passengers. These carriers operate in a unique and competitive environment and present a multifaceted oversight challenge for FAA. While they must meet the same safety standards as mainline carriers, they operate under a business model that requires them to keep costs low, yet they do not benefit from upward trends in ticket prices, additional revenue from baggage fees, or passenger enplanements. Therefore, their operations are strongly impacted by changes such as service expansion, airline consolidations, or new pilot requirements—all of which have taken place in recent years.

Actions taken for FY 2018:

- The FAA acquired Tableau Desktop business intelligence software for approximately 50 identified safety analysts. This state of the art tool is being used to analyze and visualize safety data. It provides a tool for presenting critical data effectively for use in risk-based decision making. This was completed July 2017.
- Current FAA guidance contains detailed information on policy and procedures for implementing the risk management process for any newly identified hazard. The process requires extensive documentation in the Safety Assurance System (SAS) and assesses the overall air carrier (14 CFR parts 121/135) and air agency (14 CFR part 145) operation in a subjective manner.
- Principal Inspectors document all external inputs (such as complaints) in the SAS, using the appropriate risk indicators found in the Certificate Holder Assessment Tool (CHAT). CHAT is a tool used for all certificates to identify risk. The Inspectors determine follow-up actions and add those actions to the Action Item Tracking Tool (AITT) and, when appropriate, add assessments to their Comprehensive Action Plans (CAP). Both the AITT and the CAP track the date that items are created and completed and are available for management review.
- Inspectors are required to regularly review the AITT and the CHAT as part of the planning process. The AITT/CHAT is reviewed at least annually (for Part 135/145 operators), quarterly (for Part 121 operators), or as needed.

Actions remaining and expected completion date:

In FY 2019:

- Using Tableau software that allows for the visualization of data, Flight Standards safety analysts are creating and maintaining reports that support risk-based decision-making. A single SharePoint site is being developed where the products are kept for a single reference location for stakeholders. This SharePoint will be available to our stakeholders the first quarter of FY 2019.
- The FAA made significant changes/clarifications to the choices in the decision aid in FAA Order 8900.1 V6 C2 S18 to emphasize the importance of completing decision aids periodically for baseline comparisons and to implement a retention policy for completed decision aids so they will be available to inspectors for comparison and analysis during risk assessments. We are in the process of performing a beta test with several FAA Certificate Management Offices. The expected completion date for the beta test is December 2018.
- The FAA also made significant changes/clarifications to FAA Order 8900.1 V6 C2 S18 regarding training for inspectors and is in the process of performing a beta test with Certificate Management Offices to determine if training is required. The expected completion on this determination is December 2018.
- The FAA evaluated and revised FAA Order 8900.1 V6 C2 S18 and is going through the coordination process for approval of the revision. The revised FAA Order 8900.1 V6 C2 S18 will include a requirement for completion of decision aids as a baseline, periodic completion, and retention for trend monitoring. The expected completion date is February 28, 2019.
- The FAA made significant changes/clarifications to the choices in the decision aid in FAA Order 8900.1 V6 C2 S18. The revision also includes more detailed information on how to detect triggers that would require the completion of decision aids. The expected completion date for this guidance is February 28, 2019.

In FY 2020:

- The Safety Assurance System (SAS) Integrated Project Team (IPT), IPT2 – Risk Profile, is on target for release in 2020. In the meantime, the FAA has created in prototype an Interim Certificate Holder Priority Index to bridge the gap between the present day and the release of the formal SAS Risk Profile in FY 2020.
- In order to provide a quantified and integrated measure of the impact of the Risk Management Process, the FAA has incorporated inspector guidance on risk-management processes throughout the IPT's SAS risk profile development process. Enhancements to the assessment determination functionality in SAS include an Inspector interface based on the risk matrices contained within FAA Order 8040.4B - Safety Risk Management Policy and Risk Management Processes in FAA Order 8900.1 Volume 10. The SAS will utilize a model based on FAA risk management policy that incorporates multiple manual and automatic data input sources to provide risk scores to assist managers and inspectors in using risk-based decision making to prioritize inspections. This will be a change to 8900.1 Volume 10 and the FAA-owned SAS automation. The FAA will release the SAS Risk Profile in FY 2020.
- Following the implementation of SAS Phase 3, the FAA will generate a risk profile for all overseen entities using SAS. One component of the risk profile will be external inputs. These inputs, when documented and assessed in the CHAT, will contribute to priority indices. Also, surveillance actions associated with the external input will be automatically added to the Inspector's CAP and the AITT. If the surveillance is not completed in the specified timeframe, SAS will categorize the assessment as overdue. The risk profile will calculate a risk value for the assessment based on its overdue status if not completed, or based on the risk determined by the findings if completed. The FAA will release the SAS Risk Profile in FY 2020.

Results or expected results:

The above list of actions demonstrates that the FAA is continuing to upgrade its existing (and introduce new) capabilities, processes, procedures, and tools to meet the multifaceted challenges of overseeing the dynamic and evolving regional airline industry.

Strengthening the Investigative Process and Proactively Removing Suspected Unapproved Parts from the Aviation Supply Chain

Why is this issue significant?

The traveling public depends on the FAA and the aviation industry to ensure that U.S. aircraft are properly maintained and airworthy. Part of this responsibility is to detect and monitor for Suspected Unapproved Parts (SUP) - aircraft parts that may have been manufactured without FAA approval, including counterfeit parts. The FAA is taking corrective actions in response to the Inspector General's 2017 recommendations to strengthen its management controls and ensure consistent investigations of SUPs. However, ensuring that the hundreds of thousands of aircraft parts installed on airplanes are manufactured or repaired according to standards continues to be a challenge for FAA and the aviation industry.

Actions taken for FY 2018:

- The FAA created two management controls to evaluate if SUP cases reported to local FAA offices were also reported to the FAA Hotline, as is required by Order 8120.16A.
- The FAA created two management controls to evaluate if Unapproved Part Notices were issued in all cases where local inspection offices found unapproved part(s) that could not be contained. The Inspector General closed this recommendation as having been addressed by the FAA on April 17, 2018.
- The FAA developed an Internal Evaluation of the SUP Program (audit) based on FAA Order 8120.16, Suspected Unapproved Parts Program, to evaluate how inspectors at each Manufacturing Inspection District Office adhere to guidance when conducting SUP investigations.
- The FAA developed a process to document the forwarding of all SUP reports that were classified as Improper Maintenance cases to the Inspector General, who then considered this recommendation addressed on July 26, 2018.
- The FAA included a "best practice" in the SUPs Advisory Circular AC 21-29 to encourage industry to register to receive automated notifications about unapproved parts.

Actions remaining and expected completion date:

The FAA will review the results from the Internal Evaluation of the SUP Program and document any nonconformance issues within the quality management system. We will also ensure that corrective action steps (management controls) necessary to prevent recurrence will be implemented accordingly by March 2019.

The FAA will develop a management control by February 2019 to ensure that inspectors follow current guidance when SUP investigations discover unapproved parts in the possession of operators/airlines.

The FAA is working to review and clarify our policy on SUPs, and will:

- Standardize policy to ensure that investigations are conducted thoroughly and completely;
- Ensure management is aware of all investigations and potential outcomes, including the mitigation for any parts that are considered unapproved after the investigation is complete; and
- Initiate internal and public comment periods for the changes to Order 8120.16 by February 2019.

Results or expected results:

The FAA will enhance its margin of safety related to removing unapproved parts from the system by: a) taking appropriate steps to strengthen the effectiveness of the SUPs investigation process; b) being more proactive in locating unapproved parts; and c) ensuring that they are removed from the aviation supply chain.

Right: Terminal Doppler Weather Radar. Photo: FAA

Addressing Reports of Increased Runway Safety Incidents

Why is this issue significant?

Reducing the risks posed by surface accidents and other surface-safety events is a top priority for the FAA. To monitor this risk, multiple data sources are used and data are weighted. Fatalities and injuries to people are the most severe, followed by damage to property, and finally, precursor events where there was no damage or injury but the risk was detected. Data shows that:

- The number of accidents has remained relatively consistent.
- The number of reported runway and surface-safety events has increased considerably, which is consistent with FAA's policies establishing the value of precursor information instead of accident investigations. These policies allow more events to be reported to better inform safety mitigation activities.
- National airspace system runway safety risk has decreased as a result of more informed mitigation activities.

While the FAA has achieved significant reduction in risk to people in airplanes that are on runways and taxiways, the runway safety metrics have not been updated publically to reflect the current risk-based safety-performance. The existing Runway Safety Metric focuses only on runway incursions. As a result, any increase in the number of runway safety incidents is perceived as an increased indicator of risk.

Actions taken for FY 2018:

- The FAA developed a separate commercial and non-commercial metric for runway safety and corresponding performance targets.
  - These new metrics incorporate all types of relevant surface-safety events (accidents and incidents) in the runway and taxiway environment, including runway incursions, runway excursions, and surface incidents.
  - By incorporating every type of runway safety event, the new metrics reflect the overall safety of the entire runway environment.
  - These new metrics are effective in FY 2019 and are being included in the updated DOT Strategic Plan.
- During FY 2018, the FAA continued to advance runway safety technologies such as the Airport Surface Surveillance Capability (ASSC), Runway Status Lights (RWSL), and Airport Surface Detection Equipment (ASDE-X) Enhancements.
  - ASSC achieved Operational Readiness Decision at Cincinnati/Northern Kentucky International Airport on May 24, 2018, and Initial Operational Capability at Kansas City on September 18, 2018.
  - RWSL went operational at Dallas/Ft. Worth in March 2018 and Boston Logan in May 2018.
  - ASDE-X Taxiway Arrival Prediction Alert began functioning at Seattle/Tacoma in May 2018.
- The FAA's Runway Safety Council continued to meet quarterly to analyze surface event data collaboratively in order to develop and share focused outreach materials and efforts primarily for the pilot community. The Council last met on August 22, 2018.
- The FAA's runway safety education and outreach activities promoted new training and conducted summits to improve runway safety:
  - The Pilot Simulator Situational Awareness Video Clips rolled out in July 2018.
  - The Wrong Surface General Aviation Situational Awareness Video was displayed at the Experimental Aircraft Association's Air Venture event in July 2018.
  - The Wrong Surface Safety Summit was held August 21, 2018.

Actions remaining and expected completion date:

- The FAA will begin using and reporting on the new risk-based Runway Safety Metric in FY 2019.
- ASSC Operational Readiness Decision at Kansas City is targeted for October 2018; and Initial Operational Capability at Pittsburgh is targeted for December 2018.
- RWSL operational date at San Diego is targeted for October 2018.
- The Runway Safety Council meets for the last time in 2018 on November 28.
- ASDE-X Enhancements: Runway Arrival Prediction and Taxiway Arrival Prediction are targeting five additional airports by the end of December 2018 (Boston, Salt Lake City, Atlanta, Newark and Fort Lauderdale).

Results or expected results:

Monitoring the reported events and quantifying the risk to people enables the FAA to develop the most effective strategies for lowering overall risk and a more accurate approach to communicating runway risk to the public.

Mitigating Risks With High-Priority NextGen Investments and Delivering Benefits to Airspace Users

Why is this issue significant?

The FAA has successfully worked with industry to identify and launch key NextGen priorities. In 2013, FAA tasked the NextGen Advisory Committee (NAC) with reviewing FAA's NextGen plans and recommending priorities for investment. That same year, the NAC identified four top priorities critical to delivering near-term benefits and advancing NextGen: (1) advancing Performance Based Navigation; (2) improving access to closely spaced parallel runways (known as Multiple Runway Operations); (3) enhancing airport surface operations; and (4) developing data communications for controllers and pilots.

Actions taken for FY 2018:

- The FAA continues to manage risk at the program level, portfolio level, and the NextGen enterprise level through standard working groups with FAA leadership and industry forums. The near-term NextGen priorities established in collaboration with the FAA and industry stakeholders via the NAC are included in this overall risk management framework.
- The FAA held three NAC meetings as planned in FY 2018: March 14, 2018; June 27, 2018; and October 31, 2018.
- The FAA held NextGen Priorities Integration Working Group status meetings throughout FY 2018, with each group deciding their respective meeting cadence but most met at least once per month. During each status meeting, the leaders discussed the risks and mitigation strategies and assigned solutions.
- The FAA held monthly NAC subcommittee meetings; the subcommittee is co-chaired by two executives from industry and serves as the functional advisor to the NAC through the working groups.
- In addition to NAC subcommittee meetings, the FAA held calls with and met bi-monthly with industry leadership to understand industry risk. Following the FAA's risk management process, identified risks were assigned to the appropriate program or portfolio managers for mitigation, or they were elevated to the NextGen Management Board or another higher-level body for mitigation and resolution.
- The NextGen Management Board reviewed risks, mitigations and tracked the status at the direction of the FAA Deputy Administrator and Chief NextGen Officer.

Actions remaining and expected completion date:

The FAA will continue to update the NextGen Priorities Joint Implementation Plan in collaboration with its industry partners to oversee progress. As issues arise, risks will be identified and mitigated. The progress in modernizing the national airspace system will be tracked and reported by the Joint Analysis Team, a joint FAA-industry team charged with reporting on progress from a consensus approach.

Results or expected results:

With the actions taken throughout FY 2018, the FAA and industry have accomplished 97.8 percent of all milestones identified in the NextGen Priorities Joint Implementation Plan, including FAA-controlled milestones discussed in the Performance Results section on page 49 of this report as well as industry-controlled milestones.

Keeping Key Air Traffic Infrastructure on Track

Why is this issue significant?

As the FAA works to deliver NextGen capabilities, it also faces the challenge of maintaining and upgrading key air traffic control infrastructure, including the $2.7 billion En Route Automation Modernization (ERAM) system that air traffic controllers rely on to manage high-altitude traffic nationwide. FAA has embarked on a series of overlapping technical refresh and enhancement programs for ERAM that will impact all the system's hardware, including elements of the main operating system. Unanticipated problems with ERAM efforts will have a direct impact on FAA's ability to deliver NextGen benefits to airspace users between now and 2020.

Actions taken for FY 2018:

- The FAA continues to replace obsolete ERAM system equipment. In FY 2018, new processors were installed in the Radar Assistant Controller D Position consoles at the planned 15 of 20 locations. This upgrade enables the system to meet its operational availability and performance requirements by replacing obsolete hardware with modern, sustainable hardware platforms.
- The ERAM Enhancements Program is structured in segments to allow the introduction of new controller functionality in cost efficient intervals that do not overload current software/test capabilities or conflict with other airspace programs. In FY 2018, the FAA completed adaptation enhancements software for ERAM Enhancements 2 that is scheduled for deployment by April 2019.

- The FAA has established the New Program Integration (NPI) process that provides the foundation and structured approach for integrating new capabilities and external programs into the ERAM platform. The scope of the NPI process encompasses all activities from receipt of request for integration (e.g., a new program requesting a change in ERAM hardware, interface and/or software requirements) to establishing ERAM commitment for the schedule and lifecycle cost estimates of the requesting program. Additionally, NPI includes implementing new program requirements into the ERAM platform. In FY 2018, ERAM actively worked to onboard six programs into the NPI process, assigned an application lead, and held regular check-ins and updates on status to identify future commitments required of ERAM.
- In FY 2017-2018, the ERAM Strategic Release Planning team incorporated lessons learned from Data Communications Segment 1 Phase 1 Tower Services deployment, adjusting the planned ERAM software deployment schedule for 2018 and 2019. The change reduces risk by adding pre-planned software releases for Data Comm deployment and ensuring that both ERAM sustainment and Data Comm deployment schedules do not conflict. As a result, both program milestones will be achieved on schedule.
- In FY 2018, the Strategic Release Planning Team mapped out a release schedule for the 2020–2021 timeframe that accommodates multi-phase deployments of ERAM Sustainment 3, ERAM Enhancements 2 (NavCanada), and Data Comm Full Services. The plan reduces risk by balancing the competing resource requirements for software development and the test and deployment of the various programs.
- The FAA completed the program's internal FY 2018 Business Plan goals that justify the next phases of ERAM Sustainment and Enhancements investments. These goals included the completion of the ERAM Sustainment 3 Draft Investment Analysis Plan and Draft Shortfall Analysis Report, as well as the ERAM Enhancements 2 supporting documentation — the International Civil Aviation Organization North American Region Transmission Control Protocol/Internet Protocol Interface Requirements Document.

Actions remaining and expected completion date:

- New capabilities continue to be added to the ERAM baseline. ERAM's software is not being replaced; instead, new NextGen capabilities such as Data Communications are being added.
- The FAA is in the initial implementation of a planned phased approach for a technical refresh of ERAM hardware, known as ERAM Sustainment. This phased approach allows for cost efficient replacement of the hardware components that are approaching end of life/end of service, while permitting the flexibility of metering the effort to avoid conflicts with other program deployments. At the completion of ERAM Sustainment in 2025, the FAA will have provided all the necessary replacement hardware for the entire ERAM system.
- The United States is responsible for coordinating with the aviation organizations of countries with air traffic control automation systems that interface with ERAM (Canada, Cuba, and the Dominican Republic). As a result, the FAA has been working with NAV Canada to define and implement requirements that will facilitate the automation of radar handoffs between FAA's En Route Centers and the NAV Canada Border Centers. The supporting NAV Canada requirements and design finalization will be complete by February 2019.

Results or expected results:

Completing these ERAM-related efforts presents risks and challenges to FAA given the critical role the automation system plays in supporting new Performance Based Navigation routes and Data Communications - both high-priority NextGen investments for FAA and industry.

Strengthening the Resiliency of the National Airspace System (NAS)

Why is this issue significant?

Unexpected events and emergencies that disrupt air traffic control can have a long-lasting and significant impact on the nation's economy, airlines, and passengers. While FAA has taken steps to improve the effectiveness of its operational contingency plans since the 2014 fire at the Chicago Air Route Traffic Control Center that grounded 2,000 flights, work is still underway. For instance, many of the new technologies and capabilities that can improve the continuity of air traffic operations, such as the new NAS Voice System, are still under development with availability anticipated in the next several years. The agency is developing plans to meet newly established requirements for transferring airspace and managing air traffic control responsibilities to other facilities in the event of an incident.

In 2017, the update to this management challenge describes what the FAA's Air Traffic Organization has done to plan for and implement contingency measures, under the Director of Operational Readiness. Since 2017, the FAA has continued to staff that office and approved goals and resources to make progress on closing gaps related to contingency operations.

Actions taken for FY 2018:

The FAA has established goals and activities to address three major focus areas for contingency improvements – operational viability of the plans, facility familiarity with the plans, and a continuous improvement to contingency capabilities.

To improve the viability of existing Operational Contingency Plans (OCPs), the FAA is deploying better guidance and support for operational facilities to aid them in improving their plans.

- The FAA has completed the development of three versions of an OCP improvement guidebook: one for Air Route Traffic Control Centers (ARTCCs), one for Terminal Radar Approach Control Facilities (TRACONs) and one for Air Traffic Control Towers (ATCTs).
- The ARTCC guidebook was completed by December 2017 and the TRACON and ATCT guidebooks were completed in June 2018. The FAA solicited feedback from our field offices and piloted the guides with operational facilities.
- Three site visits were completed in May 2018, and we are on track for completing 10 OCP reviews before the end of the calendar year.

In order to assist in improving facility familiarity with the OCPs:

- The FAA kicked off development of an Operational Contingency Evaluation & Exercise Procedure (OCEEP) that will build upon the existing requirement for all sites to complete an annual comprehensive walk-through of procedures and an annual exercise that validates the facility contingency procedures.
- The OCEEP will provide guidance for how to conduct the exercises and provide realistic scenarios that are geographically and operationally relevant to specific facilities based on lessons learned from previous events nationwide.
- The FAA completed a draft OCEEP at the end of March 2018 and coordinated with the field offices and three sites to solicit facility feedback on the pilot program, which was completed in May 2018. The feedback from those site visits was used to further inform the OCEEP rollout strategy.
- An additional objective to improve facility familiarity is developing right-sized outreach and training for operational and support offices. In FY 2018, the FAA developed a draft contingency operations overview training video. The video describes what an Operational Contingency Plan (OCP) is, where it is stored, and how it is updated along with the process to implement an OCP and the roles for impacted and supporting facilities.

Improving the operational capabilities during contingency operations can be enhanced by integrating contingency improvements with new technology as it is deployed. It should be noted that improvements are possible, and are being explored, by leveraging technology already in place, including ERAM, ADS-B, FAA Telecommunications Infrastructure, and other technology.

- For example, it is possible to leverage the improvements in ERAM to provide better flight data capability, and to leverage the additional capability introduced in automation with ADS-B fusion radar processing to provide better surveillance from neighbors and build airspace plans for divestment.
- As the FAA works with facilities to improve their OCPs, the opportunities to leverage existing technology are being integrated. For example, with improvements in numbers of radars ERAM can process, the ARTCCs can be used to provide wider coverage for neighboring sites, as well as underlying TRACONs. This analysis and effort must be conducted site-by-site and is part of the new guidance material going to operational sites in order to improve OCPs.
- The FAA is improving existing OCPs that leverage current technology across the country in a priority order. Additionally, after deploying an improved standard operating procedure for OCEEP, the FAA continues to conduct nationally-led exercises at top tier facilities on an annual, rotational basis. Also in FY 2018 and continuing into FY 2019, we are developing outreach and training materials to address national, service area, and facility familiarity on operational contingency planning.

Actions remaining and expected completion date:

- The FAA development and deployment of long-term training requirements for OCPs is in process. Once baseline requirements are determined, draft goals will define a follow-on schedule for development and deployment of necessary training improvements.
- Existing technology is being leveraged to improve contingency operations. This work is ongoing into FY 2019 and beyond to ensure continuous analyses to best leverage existing and new NAS technology.

- The FAA will conduct more site visits and improve our guidebooks based on facility feedback. The FAA will continue to deploy to sites to assist them in building improved OCPs in FY 2019 and beyond. A goal of rebuilding 18 OCPs has been set for FY 2019.
- The FAA will consolidate facility feedback on the OCEEP pilot program to further inform the OCEEP rollout strategy. The FAA is working to baseline the OCEEP for field use by March FY 2019.
- The FAA's completed OCP video will be available to the field by December 2018.
- In addition to each site's requirements for annual exercises, starting in FY 2019 the FAA will be conducting exercises at approximately 10 sites per year on a rotational basis, implementing a national approach for capturing and sharing lessons learned, as well as continuously improving capabilities and standards.

Results or expected results:

The FAA has addressed three major focus areas for contingency improvements to prevent unexpected events and emergencies from disrupting air traffic control.

Meeting the Regulatory Challenges of an Evolving and Diverse Commercial Unmanned Aircraft Systems (UAS) Industry

Why is this issue significant?

The FAA recently forecast that the number of UAS in the United States is likely to be about 4 million by 2021, increasing from 1.1 million in 2016. The growing demand for commercial UAS presents new regulatory challenges for FAA, which must develop rules to govern UAS use while maintaining safety. To advance the safe integration of UAS in domestic airspace, FAA published a new rule in June 2016 for small UAS (i.e., systems weighing less than 55 pounds). However, the rule does not permit several potential uses for UAS that are highly valued by industry, such as operating beyond line of sight or at night.

Actions taken for FY 2018:

- The Notice of Proposed Rulemaking (NPRM) "Operations of Small Unmanned Aircraft Over People" was signed as planned in December 2017. The rule will standardize means to allow small UAS operations over people and at night. Additionally, the rule will allow for recurrent Part 107 pilot certification online.
- The FAA Administrator signed the Advanced NPRM "Safe and Secure Operations of Small Unmanned Aircraft Systems" on December 11, 2017 to seek public comment on the needs of the UAS security community.
- The FAA launched the Presidential UAS Integration Pilot Program with the selection of 10 lead participants in May 2018. The program works with state, local and tribal governments, who partner with industry leaders, to foster innovation and seek solutions to safely integrating UAS into U.S. airspace.
- The FAA collaborated with industry to deploy an automated system to process airspace authorizations for small UAS operators nationwide. The prototype of this system, known as Low Altitude Authorization and Notification Capability (LAANC), was deployed at several air traffic facilities in November 2017 to evaluate the feasibility of a fully automated system. After successful testing, LAANC was deployed at nearly 300 air traffic control facilities covering approximately 500 airports. As of October 1, 2018, over 35,000 authorizations have been granted in controlled airspace using this capability.

Actions remaining and expected completion date:

- The NPRM "Operations of Small Unmanned Aircraft Over People" remains in intergovernmental review. Due to security concerns from other agencies, the FAA will not finalize the proposed rule until a rule is in place to require remote identification of UAS operators. Initial publication of the NPRM is expected by the end of December 2018.
- The ANPRM "Safe and Secure Operations of Small Unmanned Aircraft Systems" is also in intergovernmental review. Initial publication is expected by the end of December 2018.
- The FAA started a rulemaking effort to create a NPRM on Remote ID that will answer public safety and security concerns tied to linking an unmanned aircraft to the remote pilot responsible for its operation. This is a critical rule that is needed prior to other rules that would enable additional UAS operations. It is also a fundamental first step in the creation of UAS Traffic Management systems. The FAA expects to publish the NPRM by summer of 2019.
- The proposed operations under the Presidential UAS Integration Pilot Program push the envelope of previously allowed UAS operations in cooperatively controlled environments. The results of these operations are captured in more than 50 data elements that will be used for future rulemaking and policy by the FAA. The pilot program will run through the end of FY 2020.

Results or expected results:

The FAA will continue to enable other current operations by waiving and exempting regulations to facilitate UAS operations. The FAA has been successful at enabling small UAS operations over people, limited operations beyond visual line of sight, multiple agricultural operations, infrastructure surveillance operations, and thousands of other commercial operations. Teams are currently working with industry leaders to create the first exemptions to Part 135, which will allow safe UAS package delivery starting in 2019.

Developing Strategies for Overseeing Operations and Mitigating Risks as UAS Integration Continues

Why is this issue significant?

The growing number of UAS operators presents significant oversight and risk mitigation challenges for FAA. UAS sightings by pilots and other sources have increased dramatically, from just 238 in 2014 to 1,100 in 2015 and more than 1,800 reported in 2016.

Actions taken for FY 2018:

- The FAA developed and implemented a consistent process to review and respond to applications for Certificates of Waiver or Authorization.
  - The new Certification for Authorization Processing System (CAPS) was deployed on October 14, 2017 and currently has approximately 1500 users. CAPS improves on previous processes by automating the workflow, which streamlines the application review process, allowing the applicant to receive notice in a shorter amount of time.
  - Specialists processing waivers or authorizations are fully trained and CAPS is updated monthly to improve performance and gain efficiencies.
  - The updates are collected during biweekly stakeholder meetings and the final decisions are made in the monthly Change Control Board meetings.
- The FAA developed the DroneZone Portal (***https://faadronezone.faa.gov/***), a "one-stop shop" for the public to register a drone, learn where to fly, apply for a part 107 waiver, request a waiver or authorization, check the status of a waiver/authorization request, or submit a UAS accident report. This resource launched on January 5, 2018.
- The FAA established metrics to track our progress in meeting UAS implementation milestones for reporting to Congress. These metrics were published in the FY 2018 UAS Implementation Plan on December 14, 2017.
- The FAA continued its ongoing weekly General Aviation Safety Assurance outreach (formerly Flight Standards District Offices outreach) for Aviation Safety Inspectors to remain current on UAS issues and guidance. This effort is ongoing.

Actions remaining and expected completion date:

- The FAA developed the Mission Logging System to capture data from the seven UAS test sites. FAA uses this information to help gather the information needed to facilitate safe UAS integration into the national airspace system. The Mission Logging System was developed and implemented in May 2015 and will remain operational until September 30, 2019.
- The FAA will submit a report to Congress with the Test Sites findings and conclusions by December 31, 2019.

Results or expected results:

The FAA is in the early stages of developing a risk-based oversight process for commercial UAS operators. Developing an effective oversight strategy is particularly important given the safety issues that arise as UAS increasingly operate in the same airspace as manned aircraft.

Managing Growth in the Commercial Space Launch Activities as the Industry Grows and Expands

Why is this issue significant?

The growing demand for commercial space launch capabilities presents a significant new oversight challenge for the FAA. Since the retirement of the space shuttle fleet in 2011, the United States has started to rely on private, commercial providers to transport satellites and other cargo into space. The growth in the industry has been tremendous in recent years.

Since 2010, the FAA has seen an increase of approximately 300 percent in the number of launch and reentry operations it oversees; a 150 percent increase in the number of licenses and permits it issues; and an 800 percent increase in the number of inspections FAA performs to ensure safety compliance. In addition, several U.S. companies are developing launch vehicles that will carry passengers into space. This "space tourism" industry will require licensed launch facilities as well as licensed launch operations.

Actions taken for FY 2018:

- The FAA engaged commercial space and aviation industry stakeholders for recommendations on developing a more performance-based regulatory approach. The FAA received recommendations on developing the performance-based regulatory approach in April 2018.
- The FAA reviewed the Office of Commercial Space Transportation's organizational structure to ensure resources are aligned to meet its goals.
- The FAA is developing a multi-year resource plan to enable more strategic focus on current and future needs in terms of technical and operational expertise to support increased licensing activities.
- The FAA ensured that the research activity undertaken by the Center of Excellence for Commercial Space Transportation prioritizes work on innovations that will facilitate safe and efficient integration of commercial space transportation into the national airspace system. This was completed on September 24, 2018.

Actions remaining and expected completion date:

- The FAA has progressed a comprehensive rulemaking effort that will transform the current launch and re-entry licensing regime to a single license for all types of launch and re-entry vehicle operations, and is on track to publish a Notice of Proposed Rulemaking by February 1, 2019. This transformation will be accomplished largely through moving from a prescriptive regulatory framework to a performance-based regime.
- The FAA has enlisted industry to ascertain if it is possible to "operationally categorize" current and planned launch and reentry sites. This effort will provide initial awareness of public safety, security, and environmental issues associated with commercial space operations. The FAA expects to receive industry's recommendation in December 2018.
- The FAA has continued to develop the Space Data Integrator — a new capability that will automate the FAA's ability to monitor the status of launch and reentry operations. The Space Data Integrator is expected to reach Initial Investment Decision in December 2018.

Results or expected results:

The FAA will continue to work with the Department of Transportation to address policy challenges. We will safely integrate commercial space launches with other aircraft operating in the national airspace system. We will align commercial space related procedures and technologies with NextGen modernization plans. We will coordinate the evolution of oversight and regulatory approaches with other federal agencies such as NASA, the Federal Communications Commission, and the Departments of Commerce and Defense.

Increasing FAA's Ability to Withstand Cyberattacks and Enhancing DOT Coordination with FAA

Why is this issue significant?

As the FAA has expanded its use of technology, its vulnerability to cyberattacks has expanded. For example, FAA's cyberattack surface (the set of ways in which an adversary can enter a system and cause damage) now includes:

- Global Positioning System (GPS) technology. The FAA is transitioning from radar to GPS technology to monitor and control aircraft. However, GPS can be jammed or "spoofed" to send incorrect information.
- Connections between air traffic control information systems and networks. Some air traffic control systems are legacy systems that lack required security controls, and may be particularly vulnerable to cyberattacks when connected to new networks.

The FAA has historically conducted its security-related efforts separately from the Department of Transportation by operating the National Airspace Systems Cyber Operations, which monitors the cybersecurity of the national airspace system, and tracks security weaknesses outside the Department's central system. In addition, the Department's recent enterprise-wide network assessment did not include FAA networks.

Actions taken for FY 2018:

- As part of the adoption of and alignment with the National Institute of Standards and Technology's Risk Management Framework, the FAA updated its cybersecurity roles and responsibilities. Since 2014, the Risk Executive function is carried out by the FAA Cybersecurity Steering Committee to oversee the execution of the FAA Cybersecurity Program and strengthen FAA's overall cybersecurity posture. The FAA Cybersecurity Steering Committee identifies and agrees upon the cybersecurity priorities, strategies, and operational guidelines needed in support of an integrated approach to protecting the FAA.
- The FAA established the National Airspace Systems Cyber Operations (NCO) to integrate with the national airspace system services, programs, and infrastructure. The NCO is the focal point for all coordination of national airspace system cyber security activities. When NCO validates that a reportable cybersecurity incident has occurred, NCO

notifies the FAA's Security Operations Center (SOC) in compliance with Federal Incident Notification Guidelines. Additionally, the FAA conducts an annual cyber exercise to assess and improve NCO and DOT SOC coordination.

- The NCO and FAA/DOT SOC incorporate lessons learned from ongoing incident handling activities into incident response procedures, training, and testing/exercises, and implement the resulting changes accordingly. The FAA/DOT SOC and NCO participated in an FAA-wide Incident Response Process exercise at the Cyber Test Facility at the William J Hughes Technical Center in June 2018.
- The DOT and FAA participate in the Department of Homeland Security (DHS) Continuous Diagnostics and Mitigation Program for the deployment of information-security-continuous-monitoring products. These products integrate and correlate the information from sensors into a dashboard-reporting-solution that summarizes and filters information at the FAA, DOT, and federal level. These products were implemented and expanded in the R&D and Mission Support domains. As of February 2018, FAA reported its required metrics through the DHS's Continuous Diagnostics and Mitigation Program capabilities.
- The FAA developed a Common Control Catalog and a Common Control Provider Agreement documenting the common controls available for inheritance by managed systems to address the Office of the Inspector General's (OIG) recommendation to develop and finalize policy, procedures, and other guidance regarding the inherited-controls-process and agreements with internal/external service providers for inherited controls. The FAA completed and provided a copy of the Common Control Catalog to DOT and OIG in August 2018 and briefed the Common Control Provider Agreement to the FAA Cybersecurity Steering Committee (the Steering Committee) on September 2018.
- The OIG audit reports also identified issues with tracking Government Accounting Office (GAO) technical recommendations outside of Cyber Security Assessment and Management; Air Traffic Organization's managing Plan of Action and Milestones in their SMART tool; and increased number of unresolved Plan of Action and Milestones. The FAA completed two initiatives to resolve longstanding cybersecurity issues:
  - The FAA completed migrating Plan of Action and Milestones into DOT's central system from the SMART tool for 136 systems and remains on target to complete the remaining systems by December 2018.
  - The FAA completed the analysis of open Plan of Action and Milestones within the DOT's central system to identify and evaluate potential enterprise solutions to address FAA information systems' security requirements. The Steering Committee was briefed on the results in September 2018.
- With regard to tracking the GAO audit recommendations, FAA and DOT reported that it is impractical to treat and manage each technical vulnerability as a Plan of Action and Milestone to be entered into DOT's central system due to the number of technical vulnerabilities identified. The platform is not designed for that, and the database and reporting capabilities would be quickly overwhelmed and become unusable. The FAA met with GAO regularly to discuss progress on addressing the GAO audit recommendations, and briefed status updates to the Steering Committee on a quarterly basis.

Actions remaining and expected completion date:

- Complete migration of Air Traffic Organization's Plan of Action and Milestones into CSAM for four remaining systems by the end of December 2018.
- Address remaining open GAO audit recommendations by the end of September 2019.
- Provide a copy of the Common Control Provider Agreement to DOT and OIG.

Results or expected results:

Promote cybersecurity through coordinated security-related efforts across the FAA and DOT. Reshape cybersecurity programs to ensure our workforce and strategies can keep pace with rapidly evolving developments as well as resolve longstanding and emerging cybersecurity vulnerabilities.

Increasing Management Attention to Federal Aviation Administration (FAA) Acquisitions — the Department's Largest Buyer

Why is this issue significant?

The FAA has the largest acquisition office within the Department of Transportation, obligating almost $5 billion annually for goods and services supporting the national airspace system. The Inspector General has identified contract management weaknesses that have increased costs and delays in implementing technology deliverables integral to Next Generation Air Transportation System (NextGen) programs.

Effective acquisition practices and transparent reporting are tenets of FAA's unique Acquisition Management System, resulting in FAA meeting mission need faster, continually

improving competition (80-90 percent) and one-bid rates (below 2 percent), and maintaining meaningful small business participation. Major FAA programs have experienced significant improvement in performance, reducing cost growth by 34 percent and schedule delays by 15 percent since 2004.

Actions taken for FY 2018:

- Initiated a Quarterly Federal Procurement Data System (FPDS) Quality Report, detailing results from the National Acquisition Evaluation Program reviews of FPDS records and a reconciliation of data between FAA's Procurement Request Information System (PRISM) and FPDS entries. This was completed in July 2018.
- The FAA continued governance and oversight processes over both the proposed and approved investment programs using its Joint Resources Council. This was achieved in September 2018.
- The FAA maintained oversight of proposed acquisition actions using its Chief Financial Officer Review and Acquisition Strategy Review Board, as applicable. This was completed in September 2018.
- Completed two lifecycle acquisition reviews of FAA programs in September 2018, as identified by the Joint Resources Council.

Results or expected results:

To maintain and promote further success within the FAA acquisition process, we must continue effective acquisition planning, have appropriate governance and oversight over the investment process, and promote transparency in spending-reporting to internal and external stakeholders.

Enhancing Oversight of Multiple–Award Contracts and Other Types of Agreements to Successfully Manage Risk

Why is this issue significant?

Multiple-award contracting programs present opportunities for FAA to streamline acquisition processes for services and supplies, reduce administrative costs, and satisfy requirements in a timely manner. Congress has granted Other Transaction Agreement authority to eleven federal agencies, including the FAA. This authority allows each agency broader authority and flexibility to establish legally binding instruments with industry and academia for research and prototyping activities.

Other Transaction Agreements can provide important flexibilities for agencies when the requirements of a particular project cannot be easily met through traditional procurement instruments. However, Other Transaction Agreements also pose performance and financial risks because they are not subject to the same controls as contracts or grants.

Actions taken for FY 2018:

- Established a best practices guide for the award and administration of multi-award contracts by September 30, 2018. This guide will be updated regularly.
- Revised current Acquisition Management System policy and guidance governing the award and administration of Other Transaction Agreements by September 30, 2018, enhancing provisions for when an Other Transaction Agreement should be used, how it should be documented, and who has authority to issue the agreement. This document will be updated regularly.
- Leveraged recording capabilities deployed through the FAA's PRISM 7.2 upgrade, and established a quarterly report of Other Transaction Agreements. This capability was deployed in June 2018.
- Incorporated Other Transaction Agreements into National Acquisition Evaluation Program acquisition reviews. This capability was deployed in April 2018.

Actions remaining and expected completion date:

- The FAA will establish a best practices guide for the award and administration of multi-award contracts, to be published in the FAA Acquisition System Toolset by January 31, 2019.
- The FAA will revise its policy and guidance governing the award and administration of Other Transaction Agreements by January 31, 2019, enhancing provisions for appropriate Other Transaction Agreement usage, to include documentation and authorities of issuer.

Results or expected results:

While Congress did not require agencies to enact policies for the use of Other Transaction Agreements, FAA established provisions in its unique Acquisition Management System to promote standardization towards their issuance and administration. While multi-awards programs and Other Transaction Agreements present multiple opportunities for meeting FAA's mission, like all acquisition tools they also present unique risks to the agency it must mitigate through effective policies and appropriate oversight.

View from aloft of Miami Beach.

Glossary

Acronym	Name
AATF	Airport and Airway Trust Fund
ACAT	Acquisition categories
ADS-B	Automatic Dependent Surveillance-Broadcast
Aeronautical Center	The Mike Monroney Aeronautical Center
AFA-CWA	Association of Flight Attendants
AFN	Finance and Management Staff Office (FAA staff office)
AGA	Association of Government Accounts
AIP	Airport Improvement Program
AITT	Action Item Tracking Tool
ANG	NextGen Office (FAA staff office)
ARP	Airports (FAA line of business)
ARTCC	Air Route Traffic Control Center
ASEAN	Association of Southeast Asian Nations
ASH	Security and Hazardous Materials Safety (FAA line of business)
ASDE-X	Airport Surface Detection Equipment Enhancements
ASIAS	Aviation Safety Information Analysis and Sharing
ASSC	Airport Surface Surveillance Capability
AST	Commercial Space Transportation (FAA line of business)
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
ATO	Air Traffic Organization (FAA line of business)
AVS	Aviation Safety (FAA line of business)
AvSTEM	Aviation Science, Technology, Engineering, and Math
CAA	Civil Aeronautics Administration
CAASD	Center for Advanced Aviation System Development
CAP	Comprehensive Action Plan
CAPS	Certification for Authorization Processing System
CAST	Commercial Aviation Safety Team
CATMT	Collaborative Air Traffic Management Technologies
CDM	Continuous Diagnostics and Mitigation Program
CDO	Convective Diagnosis Oceanic
CEAR	Certificate of Excellence in Accountability Reporting

Acronym	Name
CFO	Chief Financial Officer
CHAT	Certificate Holder Assessment Tool
CFRP	Carbon Fiber Reinforced Polymer
CO2	Carbon Dioxide
COE	Center of Excellence
CSRS	Civil Service Retirement System
CTH	Could Top Height
CY	Calendar year
Data Comm	Data Communications
DCA	Ronald Regan Washington National Airport code
Delphi	DOT's Financial Management System
DHS	Department of Homeland Security
DNL	Day-night average sound level
DOD	Department of Defense
DOL	Department of Labor
DOT	U.S. Department of Transportation
EEI	Employee Engagement Index
EMAS	Engineered Material Arresting System
ERAM	En Route Automation Modernization
ESC	Enterprise Services Center
EU	European Union
F&E	Facilities and Equipment
FAA	Federal Aviation Administration
FAAST	FAA Safety Team
FECA	Federal Employees Compensation Act
FERS	Federal Employees' Retirement System
FFMIA	Federal Financial Management Improvement Act
FFRDC	Federally Funded Research and Development Center
FLLI	FAA Leadership and Learning Institute
FMFIA	Federal Managers' Financial Integrity Act of 1982
FPDS	Federal Procurement Data System
Franchise Fund	Administrative Services Franchise Fund
FRDA	The Fraud Reduction and Data Analytics Act of 2015
FY	Fiscal Year
GA	General Aviation

Acronym	Name
GAJSC	General Aviation Joint Steering Committee
GAO	U.S. Government Accountability Office
GIM-S	Ground Interval Management-Spacing
GPS	Global Positioning System
GSA	General Services Administration
HAZMAT	Hazardous Materials
ICAO	International Civil Aviation Organization
IP	Internet Protocol
IPERA	Improper Payments Elimination and Recovery Act of 2010
IPERIA	Improper Payments Elimination and Recovery Improvement Act of 2012
IPIA	Improper Payments Information Act of 2002
IPP	Integration Pilot Program
IPT	Integrated Project Team
IRS	Internal Revenue Service
ISS	International Space Station
IT	Information Technology
ITD	The International Training Division
LED	Light Emitting Diode
LoSS	Losses of Standard Separation
MMAC	Mike Monroney Aeronautical Center
MITRE	The MITRE Corporation
NAC	NextGen Advisory Committee
NAS	National Airspace System
NAV Canada	Canada's Air Navigation Provider
NCO	National Airspace System Cyber Operations
NASA	National Aeronautics and Space Administration
NextGen	Next Generation Air Transportation System
NPI	New Program Integration
NPRM	Notice of Proposed Rulemaking
NTSB	National Transportation Safety Board
OCEEP	Operational Contingency Evaluation & Exercise Procedure
OCP	Operational Contingency Plans
OFM	DOT's Office of Financial Management
OIG	Office of the Inspector General
OMB	Office of Management and Budget

Acronym	Name
OPM	Office of Personnel Management
OTA	Office of Tax Analysis
PAR	Performance and Accountability Report
Part 107	Small Unmanned Aircraft Rule
PFC	Passenger Facility Charge
PP&E	Property, Plant, and Equipment
PRISM	Internet-based Acquisition System Integrated with Delphi
R&D	Research and Development
RAE	Risk Analysis Events
RE&D	Research, Engineering, and Development
RIM	Runway Incursions Mitigations Program
ROMIO	Remote Oceanic Meteorological Information Operational
RSA	Runway Safety Area
RSSI	Required Supplementary Stewardship Information
RWSL	Runway Status Lights
SAS	Safety Assurance System
SAVES	Strategic Sourcing for the Acquisition of Various Equipment and Supplies
SMS	Safety Management Systems
SOC	Security Operations Center
SRER	System Risk Event Rate
SUP	Suspected Unapproved Parts
SWIM	System Wide Information Management
T&E	Test and Evaluation Office within the William J. Hughes Technical Center
TALPA	Takeoff and Landing Performance Assessment
TBFM	Time Based Flow Management
Technical Center	William J. Hughes Technical Center
TFDM	Terminal Flight Data Manager
Tg	Tera grams
TRACON	Terminal Radar Approach Control
TSA	Transportation Security Administration
UAS	Unmanned Aircraft Systems
U.S.C.	United States Code
WJHTC	William J. Hughes Technical Center

We Welcome Your Comments

Thank you for your interest in the FAA's FY 2018 Performance and Accountability Report. We welcome your comments on how we can make this report more informative for our readers.

Please send your comments to:

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This FY 2018 Performance and Accountability Report and its companion: the FY 2018 Summary of Performance and Financial Information; and prior year documents are available on the FAA website at:

https:/www.faa.gov/about/plans_reports/#performance

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