# Aviation Safety Organization (AVS) (\$000)

	Dollars	FTP	OTFTP	FTE
FY 2016 Enacted	\$1,258,411	7,406	125	7,246
Adjustments to Base	\$29,593			83
Annualization of FY 2016 Pay Raises 1.3%	3,389			
Annualization of 2016 FTE	11,650			83
FY 2017 Pay Raises 1.6%	12,510			
Two Less Compensable Days	-7,871			
Transition from F&E to Ops	9,915			
Other Changes	-\$4,561			
Working Capital Fund	467			
Administrative Efficiencies	-5,028			(1
Discretionary Adjustments	\$3,350	14	2	9
Unmanned Aircraft Systems (UAS) Integration	2,850	14	2	9
Hazard Tracking Tool	\$500			
Base Transfers	\$189	1		1
Flight Standard Services Staffing	189	1		1
FY 2017 Request	\$1,286,982	7,421	127	7,339

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## Executive Summary: Aviation Safety (AVS)

### What is the request and what funds are currently spent on the program?

The request of \$1,286,982,000 and 7,339 full-time equivalents (FTEs) allows Aviation Safety (AVS) to provide core services of certification, production approval, and continued airworthiness of aircraft as well as certification of pilots, mechanics, and others in safety-related positions; expand Unmanned Aircraft System (UAS) Integration into the National Airspace System (NAS); and enhance safety data reporting capabilities through increased data sources.

### What is this program and why is it necessary?

AVS is responsible for setting the safety standards for every product, person, and organization that produces and operates aircraft in the NAS.

AVS provides the following services:

- Surveillance and oversight of existing certificate holders.
- Development and establishment of safety and certification standards for the civil aviation industry.
- Surveillance and oversight of air carriers, GA operators, repair stations, manufacturers and airman.
- Issuing or denying certifications.
- Ongoing and wide-ranging transformation of the NAS encompassed by NextGen.

These essential activities contribute to the Department of Transportation (DOT) safety goal, which is the FAA's highest priority.

## AVS has eight services and offices:

**Flight Standards (AFS):** Flight Standards Service promotes safety in air transportation by setting the standards for certification and oversight of airmen, air operators, air agencies, and designees as well as safety of flight of civil aircraft in air commerce; sets regulations and standards that consider the air carrier's duty to operate in the public interest at the highest possible degree of safety; sets regulations and standards for other air commerce, air agencies, and airmen at the appropriate level of safety in the public interest; accomplishes certification, inspections, surveillance, investigation, and enforcement activities; and manages the system for registry of civil aircraft and all official airmen records.

**Aircraft Certification (AIR):** The Aircraft Certification Service develops and administers safety standards governing the design, production and airworthiness of civil aeronautical products; oversees design, production, and airworthiness certification programs to ensure compliance with prescribed safety standards; establishes and maintains a Safety Performance Management (SPM) system for continued operational safety of aircraft; provides oversight of approval holders, designees, and delegated organizations; and works with aviation authorities, manufacturers, and other stakeholders to help them improve safety in the international air transportation system.

**Aerospace Medicine (AAM):** The Office of Aerospace Medicine oversees a broad range of medical programs and services for both the domestic and international aviation communities; performs medical certification of airmen; inspects and oversees aviation industry drug and alcohol testing programs; performs medical clearance of air traffic control specialists (ATCSs); oversees drug and alcohol testing of FAA employees with safety-sensitive jobs and jobs requiring security clearances; performs aerospace medicine and human factors research; manages employee occupational health and health awareness programs; and performs oversight of aviation medical examiners (AMEs).

**Rulemaking (ARM):** The Office of Rulemaking manages FAA's rulemaking program, processes, and timelines; develops proposed and final rules; manages responses to petitions for rulemaking and for exemption from regulatory requirements; and oversees rulemaking advisory committees that provide advice and recommendations on aviation-related issues.

Accident Investigation & Prevention (AVP): The Office of Accident Investigation and Prevention investigates aviation accidents and incidents to detect unsafe conditions and trends and to coordinate the

corrective action process; investigates major or significant accidents and incidents to identify safety deficiencies and unsafe conditions and recommend policy; coordinates with the responsible FAA office for evaluation and corrective action; analyzes accident and incident data and other safety data to identify safety issues and trends; addresses National Transportation Safety Board (NTSB) and internal FAA Safety Recommendations; and leads Safety Management System (SMS) implementation efforts for FAA and AVS.

**Air Traffic Safety Oversight (AOV):** Air Traffic Oversight Service establishes safety standards and provides independent oversight of the Air Traffic Organization (ATO) through auditing, surveillance, investigations, inspections, and cooperation with other FAA safety services; approves the ATO SMS and monitors the ATO for compliance with the approved SMS; reviews and approves the ATO's safety implementation actions and risk management strategies; and ensures consistency in the application of requirements through credentialing programs for ATO operation personnel and safety audits of ATO operations and system processes.

**Unmanned Aircraft Systems Integration (AUS)**: The UAS Integration Office is responsible for the safe, efficient, and timely integration of UAS into the NAS, which encompasses supporting the development, implementation, and maintenance of operating regulations, policies, guidance, requirements, criteria, and procedures related to UAS integration; determining and prioritizing UAS research needs and requirements; leading agency UAS standards development and international harmonization efforts; facilitating programs to advance UAS integration activities beyond the scope of the proposed small UAS rule; and developing and implementing communications and outreach/educational initiatives.

**Quality, Integration, & Executive Service (AQS)**: The Office of Quality, Integration, & Executive Services provides executive oversight and direction of consolidated management support services for all of AVS; manages all phases of planning, financial management, IT liaison services, and administrative activities for the immediate office of the associate administrator; approves, oversees, and facilitates integration initiatives among the AVS services and offices; oversees the AVS Quality Management System (QMS); provides budget and labor distribution reporting management; and provides AVS training, planning, and human resource management.

#### Why do we want/need to fund the program at the requested level?

Public expectation is that the FAA will continuously reduce the risk of flying while enabling new technologies to enter into the aviation system. This requested funding level will enable AVS to maintain existing staffing resource levels for continued operational safety, while increasing staffing for UAS certification and integration services. AVS projects the need for additional safety staffing to meet growing demands for UAS operations, while continuing to expand delegation responsibilities to designees for future NAS growth. FAA/AVS forecast changes in the demand for non-UAS type certification design approvals required by applicants, production certificates provided to manufacturers, and supplier control audits conducted at manufacturers to remain relatively flat from FY 2016 to FY 2017. Analysis of Labor Distribution Reporting hours using the AVS Staffing Tool and Reporting System (ASTARS) shows forecasted safety work activities remaining relatively unchanged with the exception of UAS within the NAS. The most recent data also indicates that the time to complete certifications for the design of new aviation products and airworthiness directives issued to correct aircraft safety deficiencies remained relatively constant. The number of aviation products requiring certification and approvals services is anticipated to expand within the systems, and complexity is anticipated to increase as new technologies are introduced. These factors are driving the need for additional inspectors, engineers and other safety critical positions.

AVS supports the DOT Strategic Plan Safety Goal – specifically contributing toward the outcome of reducing transportation related injuries and fatalities. AVS activities in support of the safety strategic plan safety goal include:

 Establishing regulations and standards, and conducting inspections, audits, surveillance, investigations, enforcement and certification activities related to operators, airmen and designees, aircraft manufacturers and suppliers. AFS, AIR, AAM, AOV, AVP and AUS partner with other AVS organizations, other FAA LOBs and other aviation agencies to assist with NextGen implementation. AVS also promotes safety of flight for civil aircraft and air commerce.

- Providing project management and analytical support to FAA teams on all agency rules as well as safety critical data analysis of the aviation industry. ARM and AQS work with other AVS organizations, FAA LOBs and other aviation agencies to help support system safety.
- Establishing, approving, and accepting safety standards in providing independent oversight of the ATO through safety surveillance, audits, and targeted inspections; monitoring ATC procedures and operations, technical operations and facilities, and personnel certification criteria; establishing standards and managing the credentialing of ATO safety personnel, including air traffic controllers and airway transportation specialists; executing approvals, acceptances, or updates of new ATO safety standards, waivers, or modifications; and monitoring the daily operations of the NAS.
- Providing accident and incident investigation services, as well as safety data analysis of the aviation industry. We work closely with the NTSB on appropriate aviation-related matters.
- Directing and managing the maintenance and improvement of the ISO-9001:2008-based QMS for all AVS services and offices and establishing integration policy and processes for safety systems.

AVS services and offices will partner with other FAA LOBs and other aviation agencies to implement NextGen. Additional specific skill sets are needed to develop standards, rulemaking, and policy for flight technologies and procedures supporting safe flight using Enhanced Flight Vision System, Synthetic Vision Systems, Area Navigation/Required Navigation Performance procedures, ADS-B and NextGen weather in the cockpit initiatives. ADS-B represents the foundation of the NextGen air traffic system. UAS are playing an increased role in daily operations in the NAS and must be safely integrated.

The implementation of Performance-Based Navigation within the NextGen framework requires changes in the character and manner by which instrument procedure standards and criteria are developed. Certification and Flight Standardization Boards of New Aircraft provide risk assessments and safety analyses and are required to prepare the NAS for the introduction of new aircraft. This includes international introduction of new aircraft as well. AVS is responsible for delivering new training on the certification, installation and operation of the new NextGen equipment to inspectors in multiple NextGen technologies.

The requested funding level will provide additional resources for surveillance and oversight of the existing aviation fleet and production manufacturers, as well as accommodate new operators and technologies into the NAS.

#### What benefits will be provided to the American Public through this request?

AVS will provide the American Public safety and economic benefits by maintaining oversight of the NAS through increased data analysis techniques used for audits, surveillance, and certification of aircraft operators and production manufacturers, pilots, mechanics, and other safety related positions.

AVS will expand certification and integration services for newly designed and manufactured aviation products associated with UAS. The additional engineer and inspector resources will provide manufacturing and operational approvals of UAS technologies while maintaining safety oversight services within the NAS. AVS will increase surveillance and certification services as well as integration activities for UAS. Our strategic goal for staffing is to have the right number of safety critical and support employees in the right locations, thereby providing the aviation community with surveillance and oversight of air carriers, GA operations, repair stations, manufacturers, and airmen. This request will enable oversight, audit activities, and certification activities for FAR Parts 121, 135, and 145 and manufacturers to be expanded beyond current levels.

AVS will provide increased levels of oversight and surveillance, rulemaking, and certification services for existing and new operators and manufacturers. As the number of aircraft flying in the NAS grows, and new aircraft models and technologies are introduced, they will be provided certification services based on available resources. This resource request will enable sequencing time for operator and production certification services to be reduced.

AVS will provide certification and operation services for operators, manufacturers, and air traffic controllers to assist in the introduction of new technologies that will identify precisely where an aircraft is at any given moment, and how long it will take to reach its destination. NextGen satellite technologies will make this information available to both pilots and controllers, with levels of accuracy and precision unattainable by radar. Even though planes will be flying closer together, the precise information provided by NextGen will

increase safety by allowing pilots to know exactly where their aircraft is located in relation to other aircraft throughout all phases of flight. AVS will expand current service levels to accommodate unmet industry demands for certification and surveillance requirements and will continue to balance certification resources against the need to maintain safe operations for the existing fleet and manufacturers.

Finally, AVS will effectively lead and manage the FAA's Risk-Based Decision Making (RBDM) Initiative. Through this initiative, the FAA will build on safety management principles to proactively address emerging safety risk by using consistent, data-informed approaches to make smarter, system-level, risk-based decisions. Enhanced data analysis capabilities within the Hazard Tracking System based on evolution of SMS principles, improved business processes, and optimized database information will enable the FAA to be more proactive about safety make smarter, risk-based decisions throughout the agency, with industry and global stakeholders. The request will build on the existing RBDM policies and processes within the FAA and expand activities currently underway to evolve toward the use of SMS throughout the agency.

The AVS organizational structure is depicted in Figure 1 below:



Figure 1 – AVS Organizational Chart

## **Budget Summary**

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## Aviation Safety Organization (AVS) (\$000)

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 - FY2017
Salaries and Expenses	1,012,242	1,042,424	1,062,224	19,900
Program Costs	206,216	215,987	224,758	8,771
Total	\$1,218,458	\$1,258,411	\$1,286,982	\$28,571
FTE	7,068	7,246	7,339	93

The request of \$1,286,982,000 and 7,339 FTE (FTEs) allows for AVS to provide core services of certification, production approval, and continued airworthiness of aircraft as well as the certification of pilots, mechanics, and others in safety-related positions; expand UAS integration into the NAS; and enhance safety data reporting capabilities through increased data sources. This request also includes \$467,000 in Working Capital Fund adjustments and a base transfer of \$189,000 and 1 FTE.

## Funding details for AVS's eight services and offices:

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Flight Standards Service	851,773	874,549	874,709	160
Aircraft Certification Service	215,291	222,336	226,700	4,364
Office of Aerospace Medicine	56,272	60,114	62,548	2,434
Office of Rulemaking	6,218	6,368	6,504	136
Accident Investigation & Prevention Service	21,587	25,713	26,442	729
Air Traffic Safety Oversight Service	23,492	23,967	24,105	138
Office of Unmanned Aircraft Systems	0	0	12,185	12,185
Office of Quality, Integration and Executive Service	43,825	45,364	53,789	8,425
Total	\$1,218,458	\$1,258,411	\$1,286,982	\$28,571

#### **Discretionary Adjustments:**

Program	Service Unit	Amount
Unmanned Aircraft Systems (AUS) Integration	AFS/AIR	2,850
Hazard Tracking Tool	AVP	500
Total Discretionary Adjustments		\$3,350

## **Transition to Operations and Maintenance:**

Program	Service Unit	Amount
A25.02-01/02, Safety Approach for Safety Oversight (SASO)	AFS, AQS	7,663
A26.01-01, Aviation Safety Knowledge Management Environment (ASKME)	AIR, AQS	444
A17.01-02, Regulation & Certification Infrastructure for Safety System (RCISS)	AVS, AQS	1,808
Total Transition to Operations and Maintenance		\$9,915

## Detailed Justification for - Flight Standards (AFS)

## What Is The Request And What Funds Are Currently Spent on the Program?

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Salaries and Expenses	717,679	737,585	746,305	8,720
Program Costs	134,094	136,964	128,404	-8,560
Total	\$851,773	\$874,549	\$874,709	\$160
FTE	5,133	5,247	5,273	26

## FY 2017 – Flight Standards Service (AFS) (\$000)

The FY 2017 request of \$874,709,000 and 5,273 FTEs allows AFS to provide certification and surveillance of U.S. air carriers and foreign air carriers operating in and over the U.S. through the establishment and oversight of safety requirements, standards, and regulations. Current funds cover 8 regional offices, 79 flight standards district offices, 18 certificate management offices, 4 international field offices, and 5 aircraft evaluation group offices.

## What is this program and why is it necessary?

AFS provides core services of certification, production approval, and continued airworthiness of aircraft as well as the certification of pilots, mechanics, and others in safety-related positions; expands UAS integration into the NAS; and enhances safety data reporting capabilities through increased data sources.

In FY 2017, AFS will develop policies, procedures, and approval processes to enable UAS operations; conduct and participate in Pilot Seminars and Flight Instructor Refresher Courses and Commercial Flight Instructor/Designated Pilot Examiner refresher courses at towered and non-towered airports; develop appropriate policy, procedural guidance, and certificate management programs for the emerging technologies needed to transition and operate in the NextGen environment; validate effectiveness of initiatives, interventions, and recommendations implemented by the General Aviation (GA) Loss of Control workgroup and the amateur-built flight standardization board to mitigate loss of control causes in GA; establish the infrastructure necessary to oversee the implementation of SMS by 14 CFR Part 121 Air Carriers; integrate Safety Assurance System (SAS) in all the field offices; formalize an AFS Internal Safety Assurance Program; and implement a secure FAA airman test delivery system that incorporates new technology and is supported by training and testing documents that embrace NextGen concepts.

AFS FY 2015-2017 programs, including UAS, SAS, Air Carrier Training Aviation Rulemaking Committee, Airman Certification System Improvement, Activities from FAA Modernization and Reform Act, and Certification & Oversight of New Entrants, are aligned with the following agency strategic goals:

- NAS of the Future: Deliver Benefit through Technology/Infrastructure
- RBDM: Make Aviation Safer and Smarter

#### Anticipated FY 2016 Accomplishments:

### Why do we want/need to fund the program at the requested level?

AFS plays a vital role in supporting Agency emerging technology initiatives by developing standards, policy, and guidance needed to transition and operate in the NextGen environment; establishing regulations and standards, conducting inspections, audits, surveillance, investigations, enforcement and certification activities related to operators, airmen and designees.

In FY 2017 AFS plans to expand UAS integration into the NAS and certification/integration services for newly designed and manufactured aviation products associated with UAS.

Function/Office	FY 2017 Anticipated Accomplishments		
Flight Standards Service	<ul> <li>Developing policies, procedures, and approval processes to enable UAS operations.</li> <li>Delivering Pilot Seminars and Flight Instructor Refresher Courses and Commercial Flight Instructor/Designated Pilot Examiner refresher courses at towered and non-towered airports.</li> <li>Continuing developing policy, procedural guidance, and certificate management programs for the emerging technologies needed to transition and operate in the NextGen environment.</li> <li>Evaluating effectiveness of initiatives, interventions, and recommendations, implemented by the GA Loss of Control workgroup and the amateur-built flight standardization board to mitigate loss of control causes in GA.</li> <li>Continuing to develop the infrastructure necessary to oversee the implementation of SMS by 14 CFR Part 121 Air Carriers.</li> <li>Integrating SAS in all the field offices.</li> <li>Formalizing an AFS Internal Safety Assurance Program.</li> <li>Implementing a secure FAA airman test delivery system that incorporates new technology and is supported by training and testing documents, which embraces NextGen concepts.</li> </ul>		

#### Anticipated FY 2017 Accomplishments:

#### Total Requested Discretionary Increase Requests:

Programs	Amount	FTP	FTE
Unmanned Aircraft Systems (AUS) Integration	2,125,000	9	5
Total	\$2,125,000	9	5

**Unmanned Aircraft Systems (AUS) Integration:** AFS is requesting \$2,125,000 including 9 FTP and 5 FTE to facilitate UAS access to the NAS through the implementation of three focus areas that expand the current exemption and Certificates (COAs) of Authorization processes into new areas. This growth supports the NAS Initiative to safely and efficiently incorporate new aviation products and users such as UAS. AVS will continue to support the aviation industry's growing demand for aircraft, operator, and airmen certification services as they continue to grow for UAS products. New designs and products have been developed and must be safely integrated into the NAS.

This program will allow for the following:

- Timelier UAS registrations and operator certificates.
- Greater access to data relating to UAS aircraft and operators entering the world of aviation.

## What Benefits will be provided to the American Public through this request?

The programmatic approach outlined in the NAS Initiative includes adapting services and regulatory approaches in order to integrate these new operations into the NAS in a timely fashion and with the same level of safety and efficiency as other legacy operations. This request will support the planning for and subsequent processing of exemptions and COAs associated with the expanded UAS access to the NAS. The Registry has and will continue to expand operations to include the processing of registration and recordation documents for aircraft in the UAS category. There are also maintenance and renewal activities associated with the issuance of certificates for the airmen/operator.

FY 2017 – Aircraft Certification Service (AIR)

## Detailed Justification for – Aircraft Certification Service (AIR)

#### What Is The Request And What Funds Are Currently Spent on the Program?

#### (\$000) Change FY 2016 FY 2017 FY 2015 FY2016 -**Program Activity** Actual Enacted FY2017 Request 206,389 4,068 Salaries and Expenses 197,218 202,321 20,311 296 Program Costs 18,073 20,015 Total \$215,291 \$222,336 \$226,700 \$4,364 FTE 1,294 1,328 1,344 16

The FY 2017 request of \$226,700,000 and 1,344 FTEs allows AIR to provide regulatory oversight for type, production, and airworthiness certification of civil aeronautical products and parts. Current funds cover 14 Aircraft Certification Offices, 19 Manufacturing Inspection District Offices, 3 Manufacturing Inspection Satellite Offices, 1 CMO, 2 Certificate Management Units, and 2 International Offices (Brussels, Shanghai).

#### What is this Program and Why is it Necessary?

AIR's functions, which are essential to ensure the safety of the NAS, are establishing safety standards and procedures governing the design, production, and continued airworthiness of aircraft and aircraft parts; approving aircraft design, aircraft engines, propellers, and parts; issuing approvals to manufacturing facilities upon showing compliance to the applicable safety standards; determining whether aircraft meet applicable standards and are safe to fly; providing oversight and surveillance of approval holders to ensure continued compliance to safety standards; collecting and reviewing safety data, performing trend analysis, and taking the appropriate actions to ensure continued operational safety of the existing fleet; managing designee qualifications, appointments and oversight; and investigating possible violations and initiating compliance and enforcement actions.

In FY 2017, AIR will support agency emerging technology initiatives by developing standards, policy, and guidance needed to transition and operate in the NextGen environment, conducting inspections, audits, surveillance, investigations, enforcement and certification activities related to aircraft manufacturers and suppliers.

AIR FY 2015-2017 programs, including FAA Modernization and Reform Activities under the Small Airplane Revitalization Act: Part 23 Rule & Part 21/SMS Rule; Organization Delegation Authorization (ODA) Improvements; Advancing our SMS; Globalization of the Aviation Manufacturing Industry; Developing Advisory Guidance for Certification of UAS, are aligned with the following agency strategic goals:

- RBDM: Make Aviation Safer and Smarter
- Global Leadership: Enhance Global Leadership
- NAS of the Future: Deliver Benefit through Technology/Infrastructure

Function/Office	FY 2016 Anticipated Accomplishments
Aircraft Certification Service	Advancing rulemaking efforts to update regulations to incorporate safety management principles into the design and manufacturing environments.
	<ul> <li>Continuing to update airworthiness standards, policies, and processes to reflect the safety continuum and enabling the proper introduction and oversight of safety enhancing technologies.</li> </ul>
	Guiding development of standards and issuing policy and guidance associated with UAS.
	<ul> <li>Encouraging the implementation of voluntary safety enhancements by U.S. industry and the global community.</li> </ul>
	<ul> <li>Continuing Part 23 rulemaking to improve the certification standards of small airplanes leading to improved safety and reduced cost.</li> </ul>
	<ul> <li>Continuing the transition of existing fleet of piston- engine aircraft to unleaded fuel and enabling newly manufactured aircraft to be certificated with unleaded fuel.</li> </ul>
	Continuing to evolve and optimize our delegation system to reinforce a systems approach to safety.

## Anticipated FY 2016 Accomplishments:

#### Why Do We Want/Need to Fund the Program at the Requested Level?

AIR operations vital to aviation safety include promoting FAA Modernization and Reform activities under the Small Airplane Revitalization Act, developing the Part 23 and Part 21/SMS Rule, organizing ODA Improvements, implementing the Safety Continuum for other product types, advancing our SMS, globalizing the aviation manufacturing industry, and developing advisory guidance for certification of UAS.

Function/Office	FY 2017 Anticipated Accomplishments
Aircraft Certification Service	<ul> <li>Continuing to advance rulemaking efforts to update regulations to incorporate safety management principles into the design and manufacturing environments.</li> <li>Updating airworthiness standards, policies, and processes to reflect the safety continuum and enabling the proper introduction and oversight of safety enhancing technologies.</li> <li>Guiding development of standards and issuing policy and guidance associated with UAS.</li> <li>Encouraging the implementation of voluntary safety enhancements by U.S. industry and the global community.</li> <li>Continuing Part 23 rulemaking to improve the certification standards of small airplanes leading to improved safety and reduced cost.</li> <li>Transitioning the existing fleet of piston-engine aircraft to unleaded fuel and enabling newly manufactured aircraft to be certificated with unleaded fuel.</li> <li>Evolving and optimizing our delegation system to reinforce a systems approach to safety.</li> </ul>

## Anticipated FY 2017 Accomplishments:

#### Total Requested Discretionary Increase Requests:

Programs	Amount	FTP	FTE
Unmanned Aircraft Systems (UAS) Integration	725,000	5	4
Total	\$725,000	5	4

**Unmanned Aircraft Systems (UAS) Integration:** AIR is requesting \$725,000 to guide development of standards and issuing policy and guidance associated with UAS. This request will support the planning for and subsequent processing of residual and incoming Section 333 exemptions, COA, type certifications, and experimental certificates associated with the expanded UAS access to the NAS. In addition, this request supports development and coordination of design, production, and airworthiness requirements, certification procedures, and international harmonization of FAA UAS certification activities.

This program will allow for the following:

- Visual Line of Sight operations in urban areas, planned Beyond Visual Line of Sight (BVLOS) operations in rural areas, and dynamic BVLOS operations in rural areas.
- Continued development of UAS design approval process under the existing 21.17(b) special class type design regulations with its pathfinder project.

#### What Benefits will be provided to the American Public through this request?

The request provides for the expansion of services for type, production and airworthiness certification of civil aeronautical products and parts. AIR is responsible for the establishment of safety standards and procedures governing the design, production and continued airworthiness of aircraft and aircraft parts. AIR provides the American public the engineering and manufacturing expertise to determine if an aircraft meets applicable standards and is safe to fly.

FY 2017 – Office of Aerospace Medicine (AAM) (\$000)

## Detailed Justification for - Office of Aerospace Medicine (AAM)

## What Is The Request And What Funds Are Currently Spent on the Program?

#### Change FY 2015 FY 2016 FY 2017 FY2016 -**Program Activity** Actual Enacted Request FY2017 Salaries and Expenses 43,974 47,194 49,543 2,349 **Program Costs** 12,298 12,920 13,005 85 Total \$56,272 \$60,114 \$62,548 \$2,434 FTE 355 383 397 14

The FY 2017 request of \$62,548,000 and 397 FTEs allows AAM to provide a broad range of external and internal aviation safety programs related to aerospace medicine. Current funds cover the AAM headquarters staff, medical specialties personnel, drug abatement division, 9 regional offices, 6 medical field offices, and the Civil Aerospace Medical Institute (CAMI).

#### What is this Program and Why is it Necessary?

AAM provides advice and technical support for medical policies and standards, medical rulemaking, airman medical certification appeals, psychiatry, agency employee medical clearance appeals. AAM manages the development, implementation, administration, and compliance monitoring of the aviation industry drug and alcohol testing programs; and supports a wide range of national programs and administrative activities within their geographical areas. At CAMI, AAM develops and manages a system for the medical examination and certification of U.S. civil airmen; conducts medical and related human factors research projects applicable to the FAA's mission; develops and administers aerospace medicine education programs; operates a medical clinic; provides occupational health programs for the Mike Monroney Aeronautical Center; and plans, develops, and administers basic and refresher AME training.

AAM FY 2015-2017 programs, including AME Assisted Special Issuance and Conditions AMEs Can Issue Program, Aerospace Medicine Safety Information System, AAM SMS, Medical Guidance for Effective Screening for Disqualifying Medical Conditions, and International Leadership in Aerospace Medicine, are aligned with the following agency strategic goals:

- RBDM: Make Aviation Safer and Smarter
- NAS of the Future: Deliver Benefit through Technology/Infrastructure
- Global Leadership: Enhance Global Leadership

Function/Office	FY 2016 Anticipated Accomplishments
Office of Aerospace Medicine	<ul> <li>Leading the world in development of medical standards for pilots and ATCS.</li> <li>Using risk based approaches to determine the eligibility of airmen and ATCS for medical certification and issuing medical certificates.</li> <li>Developing appropriate medical protocols and reviewing complex medical cases to medically certify all applicants who can be safely qualified to fly.</li> <li>Managing and supporting nearly 3,200 designees that perform critical aviation medical examiner duties for the FAA.</li> <li>Issuing medical clearances to Air Traffic Controllers.</li> <li>Improving our medically based approaches to managing aeromedical hazards.</li> <li>Conducting compliance and enforcement surveillance inspections of aviation industry employers that have required employee drug and alcohol testing programs.</li> <li>Managing the FAA internal substance abuse testing program.</li> <li>Overseeing the AME Training and Oversight program for designees.</li> <li>Providing critical physiological and survival training to thousands of GA and commercial pilots.</li> </ul>

### Anticipated FY 2016 Accomplishments:

## Why Do We Want/Need to Fund the Program at the Requested Level?

AAM is responsible for a broad range of external and internal aviation safety critical programs related to medicine. AAM leads the world in developing medical standards for pilots and ATCS; implements and manages systems to medically certify commercial and GA pilots; processes pilot medical certification and appeal cases, including special issuances for increasingly complex medical issues; manages medical clearance of ATCS; designates and overseeing AMEs; conducts compliance and enforcement inspections of aviation industry drug and alcohol testing programs; implements and oversees drug and alcohol testing of FAA employees in safety critical and security jobs; and provides critical physiological and survival training to thousands of GA and commercial airmen.

Function/Office	FY 2017 Anticipated Accomplishments
Office of Aerospace Medicine	<ul> <li>Leading the world in development of medical standards for pilots and Air Traffic Controllers.</li> <li>Expanding risk based approaches to determine the eligibility of airmen and Air Traffic Controllers for medical certification and issuing medical certificates.</li> <li>Developing appropriate medical protocols and reviewing complex medical cases to medically certify all applicants who can be safely qualified to fly.</li> <li>Managing and supporting nearly 3,200 designees that perform critical aviation medical clearances to Air Traffic Controllers.</li> <li>Improving our medically based approaches to managing aeromedical hazards.</li> <li>Conducting compliance and enforcement surveillance inspections of aviation industry employers that have required employee drug and alcohol testing programs.</li> <li>Managing the FAA internal substance abuse testing program.</li> <li>Overseeing the AME Training and Oversight program for designees.</li> <li>Providing critical physiological and survival training to thousands of GA and commercial pilots.</li> </ul>

# Anticipated FY 2017 Accomplishments:

## What Benefits will be provided to the American Public through this request?

This request will support on-going safety requirements for airman and air traffic controller medical certification, surveillance of industry drug and alcohol programs, surveillance of Aerospace Medical Examiners (AMEs), delivery of aerospace medical education courses for airman and occupational safety and health management services for agency employees.

## Detailed Justification for – Office of Rulemaking (ARM)

## What Is The Request And What Funds Are Currently Spent on the Program?

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Salaries and Expenses	4,984	5,090	5,143	53
Program Costs	1,234	1,278	1,361	83
Total	\$6,218	\$6,368	\$6,504	\$136
FTE	36	34	35	1

## FY 2017 – Office of Rulemaking (ARM) (\$000)

The FY 2017 request of \$6,504,000 and 35 FTEs allows ARM to ensure FAA regulations are developed to improve safety levels according to approved processes and are completed within mandated timelines. Current ARM funds cover two divisions and a program analysis staff.

#### What is this Program and Why is it Necessary?

ARM performs necessary rulemaking functions of developing, with the assistance of other internal stakeholders, FAA's rulemaking priorities for the current year and out-years; coordinates the development of rules with all internal and external stakeholders; processes petitions for rulemaking and petitions for exemption received from the aviation community; develops and implements improvements to critical FAA rulemaking and exemption processes and systems; and facilitates the ability of internal stakeholders to support such processes and systems.

ARM FY 2015-2017 programs, including **Private Pilot Privileges Rule, UAS Rulemaking Initiatives**, **Part 23 Rule, Communication, Navigation and Surveillance Rule, International Regulatory Cooperation, and the Rulemaking Prioritization Program**, are aligned with the following agency strategic goals:

- NAS of the Future: Deliver Benefit through Technology/Infrastructure
- RBDM: Make Aviation Safer and Smarter
- Global Leadership: Enhance Global Leadership

Function/Office	FY 2016 Anticipated Accomplishments
Office of Rulemaking	<ul> <li>Implement recommendations of recently-completed in-depth FAA Rulemaking process analysis to most effectively address increased rulemaking workload.</li> <li>Processing 85 percent of exemption requests within 120 days.</li> <li>Improving the FAA's rulemaking program.</li> </ul>

## Why Do We Want/Need to Fund the Program at the Requested Level?

ARM is responsible for ensuring FAA regulations are developed to improve safety levels according to approved processes and are completed within mandated timelines. ARM accomplishes its rulemaking functions by developing, with the assistance of other internal stakeholders, FAA's rulemaking priorities for the current year and out-years, coordinating the development of rules with all internal and external stakeholders, processing petitions for rulemaking and petitions for exemption received from the aviation community, developing and implementing improvements to critical FAA rulemaking and exemption processes and systems, and facilitating the ability of internal stakeholders to support such processes and systems.

## Anticipated FY 2017 Accomplishments:

Function/Office	FY 2017 Anticipated Accomplishments
Office of Rulemaking	<ul> <li>Leverage FY-16 process refinements to attain rulemaking schedule stability and provide completed FY17 documents within 90 days of date targets.</li> <li>Processing 85 percent of exemption requests within 120 days.</li> <li>Continuing to improve the FAA's rulemaking program.</li> </ul>

#### What Benefits will be provided to the American Public through this request?

ARM maintains an extensive base of knowledge from processing UAS 333 exemptions which provide authorization for companies to operate UAS. With RBDM petition analyses, ARM discerns patterns in the requested operations, the aircraft, and the models of UAS on the market and uses a standardized process along with the conditions and limitations for each UAS exemption. With this process evolution ARM has taken the lead in UAS exemption processing for most new exemptions requests, which now require only a summary grant document. As a result, some 90 percent of UAS 333 petitions have been granted successfully.

## Detailed Justification for - Office of Accident Investigation and Prevention (AVP)

## What Is The Request And What Funds Are Currently Spent on the Program?

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Salaries and Expenses	11,120	11,709	11,868	159
Program Costs	10,467	14,004	14,574	570
Total	\$21,587	\$25,713	\$26,442	\$729
FTE	64	65	67	2

## FY 2017 – Office of Accident Investigation and Prevention (AVP) (\$000)

The FY 2017 request of \$26,442,000 and 67 FTEs allows AVP to provide analytical capabilities to identify risk affecting the entire air transportation system and industry. Current funding supports headquarters staff and 4 divisions.

#### What is this Program and Why is it Necessary?

AVP is the principal organization within the FAA with respect to aircraft accident investigation and all activities related to the NTSB. Its mission is to make air travel safer through investigation, data collection, risk analysis, and information sharing. AVP identifies corrective measures based on accident data and FAA/NTSB safety recommendations; coordinates FAA-wide participation in accidents and incident investigations; collects aviation safety data, identifies trends; and measures effectiveness of interventions. AVP also leads agency efforts on RBDM and SMS.

AVP FY 2015-2017 programs, including **Commercial Aviation Safety Team, GA Joint Steering Committee, ASIAS, RBDM Strategic Initiative, and the Aviation Safety Research and Development Program**, are aligned with the following agency strategic goals:

- NAS of the Future: Deliver Benefit through Technology/Infrastructure
- RBDM: Make Aviation Safer and Smarter

Function/Office	FY 2016 Anticipated Accomplishments
Office of Accident Investigation and Prevention	<ul> <li>Running agency efforts to effectively address NTSB recommendations issued to the FAA.</li> <li>Leading agency efforts to effectively address FAA Safety recommendations.</li> <li>Collecting and analyzing aviation safety data at a national level and consolidate the data under ASIAS</li> <li>Heading the FAA's Initiative on RBDM and aligning the activities with the FAA SMS, AVS SMS, and the U.S. State Safety Program (SSP).</li> <li>Facilitating the continued maturation and evolution of the FAA's implementation of SMS and U.S. SSP focusing on the use of Safety Risk Management (SRM) and safety assurance processes.</li> <li>Promoting SMS implementation across the aviation system and working with International Civil Aviation Organization (ICAO) and other Civil Aviation Authorities (CAA) to ensure consistency internationally.</li> <li>Advancing accident investigation by using root cause analysis techniques in analyzing data in conjunction with activity surrounding major accident investigations.</li> <li>Directing government/industry efforts for the Commercial Aviation Safety Team and the GA Joint Steering Committee.</li> </ul>

## Why Do We Want/Need To Fund The Program At The Requested Level?

AVP leads agency efforts on RBDM and SMS. It is responsible for analytical capabilities to identify risk affecting the entire air transportation system and industry. AVP identifies corrective measures based on accident data and FAA/NTSB safety recommendations; coordinates FAA-wide participation in accidents and incident investigations; and collects aviation safety data, identifies trends, and measures the effectiveness of interventions.

AVP heads agency efforts to effectively address NTSB and FAA Safety recommendations; collects and analyzes aviation safety data at a national level; and consolidates the data under ASIAS. AVP directs the initiative on RBDM and aligns the activities with the FAA SMS, AVS SMS, and the U.S. SSP; facilitates the continued maturation and evolution of the FAA's implementation of SMS and the U.S. SSP; focuses on the effective use of SRM and safety assurance processes; promotes SMS implementation across the aviation system; and works with ICAO and other CAA to ensure consistency internationally. AVP advances accident investigation by using root cause analysis techniques in examining data from major accident investigations and oversees government/industry efforts for the Commercial Aviation Safety Team and the GA Joint Steering Committee.

Function/Office	FY 2017 Anticipated Accomplishments
Office of Accident Investigation and Prevention	<ul> <li>Leading agency efforts to effectively address NTSB recommendations issued to the FAA.</li> <li>Leading agency efforts to effectively address FAA Safety recommendations.</li> <li>Collecting and analyzing aviation safety data at a national level and consolidate the data under ASIAS.</li> <li>Leading and managing the FAA's Initiative on RBDM and aligning the activities with the FAA SMS, AVS SMS, and the U.S. SSP.</li> <li>Facilitating the continued maturation and evolution of the FAA's implementation of SMS and the U.S. SSP focusing on the effective use of SRM and safety assurance processes including the deployment of an initial FAA level hazard tracking system.</li> <li>Promoting safety management implementation across the aviation system and working with ICAO and other CAA to ensure consistency internationally.</li> <li>Advancing accident investigation by using root cause analysis techniques in analyzing data in conjunction with activity surrounding major accident.</li> </ul>

### Anticipated FY 2017 Accomplishments:

#### **Total Requested Discretionary Increase Requests:**

Programs	Amount	FTP	FTE
Hazard Tracking Tool	500,000	-	-
Total	\$500,000		174

**Hazard Tracking Tool:** AVP is requesting \$500,000 to support the development of the Hazard Tracking Tool. This request will enable AVS to effectively lead and manage the FAA's Initiative on RBDM through the collection of safety data within the Hazard Tracking System to improve standardization, data access, and modeling integration, enhance decision-making processes, and evolve the oversight model for industry. Hazard tracking is a critical component of RBDM, SMS, and SPM. This request supports the initiative on RBDM by building on the foundation of existing policies and processes in the FAA, as well as the activities currently underway to evolve toward the use of SMS and SSP principles throughout the agency.

This program will allow for the following:

- Enhance data consistency and reduce manual processes.
- Achieve a critical component of the responsibilities of its new SPM branch.

#### What Benefits will be provided to the American public through this request?

This request supports the FAA's RBDM Strategic Initiative to Make Aviation Safer and Smarter by delivering advanced methods for historical risk analysis and future risk forecasting and by developing and operating safety management functions. As a result, newly identified hazards and ineffective controls for the most significant system-wide safety issues are identified, analyzed, and mitigated and safety performance is measured and managed. The request also supports the agency's strategic objectives by enhancing hazard tracking tools to ensure data consistency and reduce manual processes. The requirements for these programs have Congressional mandate and support initiatives such as the Commercial Air Carrier Fatality Rate, the GA Joint Steering Committee and NextGen Safety Analysis.

## Detailed Justification for – Air Traffic Oversight Service (AOV)

#### What Is The Request And What Funds Are Currently Spent on the Program?

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Salaries and Expenses	21,529	21,837	21,956	119
Program Costs	1,963	2,130	2,149	19
Total	\$23,492	\$23,967	\$24,105	\$138
FTE	125	128	128	0

## FY 2017 – Air Traffic Oversight Service (AOV) (\$000)

The FY 2017 request of \$24,105,000 and 128 FTEs allows AOV to establish safety standards and provides independent oversight of the ATO – the provider of air traffic services in the United States. Current funds cover headquarters staff, 2 divisions, and 3 field offices.

#### What is this Program and Why is it Necessary?

AOV validates the ATO safety-related processes used for the introduction of new separation standards and modifications of existing separation standards; approves new standards, waivers, extension and modification of existing waivers; analyzes and authorizes controls used by the ATO to mitigate hazards; participates in operational review and analysis of information pertaining to the ATO employees, operations and programs; develops and amends regulations and guidance for regulatory oversight and credentialing functions; participates in the development and harmonization of air traffic control international standards; and provides regulatory oversight of the ATO SMS.

AOV FY 2015-2017 programs, including **Air Traffic and Technical Operation Safety Report Event Reviews and Surveillance and Audits of ATO Facilities and Locations** are aligned with the following agency strategic goals:

- NAS of the Future: Deliver Benefit through Technology/Infrastructure
- RBDM: Make Aviation Safer and Smarter
- Workforce of the Future: Empower and Innovate through FAA's People

Function/Office	FY 2016 Anticipated Accomplishments
Air Traffic Oversight Service	<ul> <li>Conducting risk-based audits of 60 facilities.</li> <li>Conducting risk-based audits of 15 Technical Operations facilities/locations.</li> <li>Surveillance of over 600 Air Traffic facilities and Technical Operation locations</li> <li>Conducting independent risk-based audits of 150 Air Traffic facilities and Technical Operations locations</li> <li>Issuing and renewing over 9,000 Air Traffic Control, Technical Operation, and Aeronautical Information credentials</li> <li>Conducting over 18,000 Air Traffic and Technical Operation Safety Report Event Reviews</li> <li>Approving over 100 changes to separation standards, procedures, alternative means of compliance, and hardware and automation modifications and upgrades in support of NextGen</li> </ul>

## Anticipated FY 2016 Accomplishments:

## Why Do We Want/Need to Fund the Program at the Requested Level?

AOV has the regulatory responsibility to provide independent safety oversight of the ATO and monitor ATO's compliance with safety standards and the SMS. AOV accomplishes its safety oversight functions by executing investigations of ATO accidents, incidents, and other occurrences that happen within the NAS; approving changes to separation standards, procedures, new systems, hardware, and automation modifications and upgrades; conducting system audits based on risk factors for accidents, incidents, operational errors, operational deviations, runway incursions, or significant non-compliance with approved safety standards in over 600 ATO facilities; and analyzing the causes of Operational Errors to enable development and implementation of safety critical corrective actions.

Function/Office	FY 2017 Anticipated Accomplishments
Air Traffic Oversight Service	<ul> <li>Performing surveillance on approximately 500 ATO facilities and locations monthly, ensuring the safety of the NAS.</li> <li>Auditing approximately 150 ATO facilities and locations annually, ensuring the safety of the NAS.</li> <li>Overseeing the renewal and issuance of more than 1,000 Air Traffic Control and Technical Operations credentials monthly, ensuring the qualification of safety operators in the NAS.</li> <li>Approving approximately 35 ATO alternative means of compliance requests annually, ensuring the optimization and safety of the NAS.</li> <li>Conducting approximately 350 Air Traffic and Technical Operations Safety Report Event Reviews weekly, ensuring the safety of the NAS.</li> </ul>

#### Anticipated FY 2017 Accomplishments:

#### What Benefits will be provided to the American Public through this request?

This request will support on-going AOV oversight of the ATO safety standards through audits, surveillance, investigations and inspections. The program initiatives conducted by AOV through surveillance, inspections, and audits at ATO facilities will support on-going implementation of Safety Management System principles within the NAS.

## Detailed Justification for – Unmanned Aircraft Systems Integration (AUS)

## What Is The Request And What Funds Are Currently Spent on the Program?

## FY 2017 – Office of Unmanned Aircraft Systems Integration (AUS) (\$000)

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Salaries and Expenses		-	4,123	4,123
Program Costs	-	-	8,062	8,062
Total	\$-	\$-	\$12,185	\$12,185
FTE		93 <b>5</b>	33	33

The FY 2017 request of \$12,185,000 and 33 FTEs allows AUS to develop policies, procedures and approval processes to enable greater expansion of unmanned aircraft systems into the NAS. FY 2017 funding supports headquarters staff and 4 divisions.

#### What is this Program and Why is it Necessary?

The UAS Integration Office is responsible for the safe, efficient, and timely integration of UAS into the NAS, which encompasses supporting the development, implementation, and maintenance of operating regulations, policies, guidance, requirements, criteria, and procedures related to UAS integration; determining and prioritizing UAS research needs and requirements; leading agency UAS standards development and international harmonization efforts; facilitating programs to advance UAS integration activities beyond the scope of the proposed small UAS rule; and developing and implementing communications and outreach/educational initiatives.

AUS FY 2017 programs and activities, including the UAS Focus Area Pathfinder Initiatives, the UAS Test Sites, the Civil UAS Integration Roadmap, and the UAS Strategic Plan, are aligned with the following agency strategic goals:

- RBDM: Make Aviation Safer and Smarter
- Workforce of the Future: Empower and Innovate through FAA's People

#### Anticipated FY 2017 Accomplishments

Function/Office	FY 2017 Anticipated Accomplishments
Office of Unmanned Aircraft Systems Integration	<ul> <li>Coordinate policies, procedures, and approval processes to enable UAS operations.</li> <li>Guide development of standards, policy and guidance associated with UAS.</li> <li>Expand integration services for newly designed and manufactured aviation products associated with UAS.</li> </ul>

## What Benefits will be provided to the American Public through this request?

This request will support the safe and efficient expansion of UAS operations in the NAS, including more efficient methods of processing of UAS registrations and enabling new UAS technologies and uses.

## Detailed Justification for - Office of Quality, Integration, and Executive Services (AQS)

## What Is The Request And What Funds Are Currently Spent on the Program?

## FY 2017 – Office of Quality, Integration, and Executive Services (AQS) (\$000)

Program Activity	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	Change FY2016 – FY2017
Salaries and Expenses	15,738	16,688	16,898	210
Program Costs	28,087	28,676	36,891	8,215
Total	\$43,825	\$45,364	\$53,789	\$8,425
FTE	61	61	62	1

The FY 2017 request of \$53,789,000 and 62 FTEs allows AQS to provide executive oversight and direction of consolidated management support services for AVS. Current funds cover the AVS Executive Office, AQS Executive Management, and 4 divisions.

#### What is this Program and Why is it Necessary?

AQS coordinates the integration of business and operational processes across AVS. Its four divisions produce the following products and services: management of AVS QMS processes; oversight of special programs; leadership of strategic and business planning; development of employee training courses and programs; formulation and execution of the AVS budget; implementation of AVS human resource activities; coordination and oversight of all AVS administrative and management actions; and direction of the AVS internal communications program.

AQS FY 2015-2017 programs, including AVS QMS, AVS Occupational Safety and Health (OSH), Program and AVS-wide integrated Environmental Management System (EMS), AVS Telework Program, AVS Internal Communications Program, AVS Diversity and Inclusion initiatives, Hiring Persons with Targeted Disabilities, Hiring Outreach and Recruitment Initiatives, Reasonable Accommodations, are aligned with the following agency strategic goals:

- RBDM: Make Aviation Safer and Smarter
- Workforce of the Future: Empower and Innovate through FAA's People

Function/Office	FY 2016 Anticipated Accomplishments
Office of Quality, Integration, and Executive Services	<ul> <li>Supporting AVS delegation management including the migration of the designee data from the current systems to shared or new applications.</li> <li>Maintaining the AVS ISO Certification.</li> <li>Meeting the National Archives and Records Administration (NARA) annual requirements for Records Management.</li> <li>Supporting the Government-wide initiative on Teleworking.</li> <li>Implementing the AIR Policy and Regulation (engineer and inspector) portion of the ASTARS.</li> <li>Exploring development of a Medical Certification Staffing Model.</li> <li>Developing and implementing AVS-wide Human Resource and Leadership Development Programs in support of agency programs.</li> </ul>

#### **Anticipated FY 2016 Accomplishments**

## Why Do We Want/Need To Fund The Program At The Requested Level?

AQS is responsible for establishing integrated policy and processes for systems that support aviation safety. AQS manages the AVS-wide QMS and is the lead for maintaining the AVS ISO 9001:2008 certification. AQS manages and provides AVS-wide guidance for strategic and business planning, internal communications, OIG/GAO audits and reports to Congress, financial management, human resource management; integrates training and development services; oversees the AVS Environmental Protection Policy; and oversees the AVS OSH.

Function/Office	FY 2017 Anticipated Accomplishments
Office of Quality, Integration, and Executive Services	<ul> <li>Maintaining the AVS ISO Certification.</li> <li>Meeting the NARA annual requirements for Records Management.</li> <li>Supporting the Government-wide initiative on Teleworking.</li> <li>Implementing the Office of Aerospace Medicine, Medical Certification component within the ASTARS.</li> <li>Exploring development of an UAS Staffing Model.</li> <li>Developing and implementing AVS-wide Human Resource and Leadership Development Programs in support of agency programs.</li> <li>Implementing communications and employee engagement strategies to keep AVS employees informed of latest safety news pertinent to their mission.</li> <li>Collaborating with the FAA Office of Communications and other LOBs to assist with agency-wide social engagement platforms such as IdeaHub.</li> <li>Establishing an approach for improved management of AVS Information Technology Systems.</li> </ul>

## Anticipated FY 2017 Accomplishments

Program	Service Unit	Amount
A25.02-01/02, Safety Approach for Safety Oversight (SASO)	AFS, AQS	7,663
A26.01-01, Aviation Safety Knowledge Management Environment (ASKME)	AIR, AQS	444
A17.01-02, Regulation & Certification Infrastructure for Safety System (RCISS)	AVS, AQS	1,808
Total Transition to Operations and Maintenance		\$9,915

## 2017 AVS Transitions to Operations and Maintenance

**Safety Approach for Safety Oversight (SASO) Phase II Beta: \$7,663,000:** The SASO Program will transform AFS and the aviation industry to a national standard of system safety based upon ICAO SMS principles. Phase 2a developed the AFS Safety Assurance System (SAS), supporting the Safety Assurance component of the AVS SMS, for Title 14, Code of Federal Regulations (CFR) Parts 121 (major air carriers), 135 (on-demand or schedule operations) and 145 (repair stations). Phase 2a is currently in the Solution Implementation Phase of the Acquisition Management System (AMS) process. As of December 16<sup>th</sup>, 2015, a total of 100 of the planned 100 sites have achieved Initial Operational Capability. SASO Phase 2a Full Operational Capability (FOC) is scheduled for September 2016.

SASO Phase 2b is a continuation of the efforts begun in Phase 2a and has been segmented into two parts. SASO Phase 2b, Segment 1 includes additional SAS development for the remaining Title 14 CFR Parts for which AFS has oversight responsibility along with the development and implementation of the four SMS components; Safety Assurance, Safety Policy, Safety Risk Management and Safety Promotion. Development and implementation of the Safety Assurance component began in Phase 2a, with the development and deployment of the Safety Assurance System (SAS), but it will be further defined, developed and deployed in Phase 2b, Segment 1.

**Aviation Safety Knowledge Management Environment (ASKME) Program, Segment 2. \$444,000:** This is a one-time request to support the transition-of the Segment 2 Integrated System-into operations, and required operations and preventative maintenance.—ASKME systems support AIR business processes. The Aircraft Certification process software is being developed as part of the ASKME Segment 2 Integrated System, with the goal of streamlining the overall certification process. This supports Sec. 312 of P.L. 112-95, FAA SMS, and RBDM Strategic Initiative.

**Regulation and Certification Infrastructure for System Safety (RCISS): \$1,808,000:** Contractor supports the RCISS Enterprise Architecture Framework (EAF) project that implements and maintains a new COTS data intelligence software tool that will play an integral part in agency adoption of Enterprise Information Management (EIM) as a strategic approach to optimizing information. This directly supports the RBDM initiative. EAF support is responsible for vital data architecture services including the following: Enterprise Data Architecture reviews, AMS artifacts, EIM architecture development, Federal Enterprise Architecture Data Reference Model mapping and data modeling, OMB Open Data Policy Support, FAA Data Registry metadata, Data Standards support, Data Sources for Service Oriented Architecture (SOA), and Master Data Management support. In FY 2015, a proof of concept of a new data intelligence tool that brought together disparate databases to create an enterprise picture of information was conducted. Its success, and eventual pilot and move to production, demonstrated the power of EIM supporting technologies for a data intensive organization like AVS. EAF contractors were vital in the development of plans and strategies supporting EIM for AVS.

Contract services for the RCISS SOA project are responsible for the overall implementation and maintenance of the RCISS SOA capability. Contract activities include defining the SOA strategy/roadmap and managing all provider and consumer access to enterprise web services, messaging, business process management and business rule products. They assist application teams in developing their solutions to leverage the SOA infrastructure and initiate standards for the use, performance, management and security of services or solutions available for reuse. They are also responsible for all SOA infrastructure upgrades, patches, designs and security reviews. A growing number of major application development programs are relying on the infrastructure these services provide. RCISS SOA capabilities result in overall better functionality and

lifecycle cost savings for its customers who leverage its available reusable services. In FY 2015, SOA contract services supported Business Process Management and Business Rules Management middleware needs for AVS systems. Those services also supported build-out of the enterprise SOA environment to two geographically dispersed locations to support increased capacity, uptime and disaster recovery needs.

#### What Benefits will be provided to the American Public through this request?

This request will support AVS executive oversight and AQS management support of the organizational components that provide safety services. AQS cross-functional programs provide oversight and direction for QMS processes, strategic planning, employee development, finance and communication services that support the surveillance, certification, and rulemaking actions conducted by the organization's safety workforce.

## **AVS Explanation of Funding Changes**

	Dollars (\$000)	FTE
Aviation Safety	\$28,571	93
<b>Overview</b> : For FY 2017, the Associate Administrator for Aviation Safety refers to meet its safety mission. The FY 2017 request level reflects adjust discretionary adjustments, and a base transfer. This represents an increas 2016 enacted level.	ments to base, other ch	nanges,
Adjustments to Base	\$29,593	83
Annualization of FY 2016 Pay Raises: This increase is required to provide for the remaining quarter of the FY 2016 government-wide pay raise of 1.3 percent. The factor used is (0.25) of 1.0 percent.	3,389	
Annualization of 2016 FTE: This increase provides for the annualized costs associated with FY 2016 new hires in AVS.	11,650	83
<b>FY 2017 Pay Raises:</b> This increase is required to provide for costs associated with base salary increases (January to September) resulting from the proposed government-wide pay raise. The factor used is (0.75) of 1.6 percent.	12,510	
Two Less Compensable Days: This decrease represents two less compensable days in FY 2016 (260 days in FY 2017 vs. 262 days in FY 2016).	- 7,871	
<b>Transition from Facilities &amp; Equipment (F&amp;E) to Operations</b> (Ops): <b>Safety Approach for Safety Oversight (SASO)</b> - The SASO Program will transform the FAA's Flight Standards Service (AFS) and the aviation industry to a national standard of system safety based upon International Civil Aviation Organization (ICAO) Safety Management System (SMS) principles. SASO Phase 2a requirements include security, training and automation requirements. In FY 2015, a total of 100 sites achieved Initial Operational Capability (IOC). The funding request provides for second level engineering and recurring travel and training.	7,663	
<b>Transition from Facilities &amp; Equipment (F&amp;E) to Operations</b> (Ops): Aviation Safety Knowledge Management Environment (ASKME) - This request will provide \$444,000 to transition Segment 2 Integrated Systems into operations, and required operations and preventative maintenance. ASKME supports AIR business processes. The aircraft certification process software is being developed as part of the ASKME Segment 2 Integrated System, with the goal of streamlining the overall certification process.	444	
<b>Transition from Facilities &amp; Equipment (F&amp;E) to Operations</b> (Ops): <b>Regulation and Certification Infrastructure for System</b> <b>Safety (RCISS) -</b> This request seeks to secure Operations & Maintenance (O&M) funding commensurate with supporting the capabilities fielded in support of the Aviation Safety (AVS) Information Technology (IT) infrastructure through investment of Facilities & Equipment (F&E) funding. The items transitioning from F&E to O&M include contractor support, maintenance of new IT software and data maintenance capabilities, and maintenance of critical telecommunications infrastructure components.	1,808	
Other Changes	-\$4,561	2
<b>Working Capital Fund:</b> This cost adjustment is requested to support the Department of Transportation's (DOT) Working Capital Fund (WCF) profile. These adjustments are being made to best align each office's resources within their expected WCF costs.	467	

	Dollars (\$000)	FTE
Administrative Efficiencies: Aviation Safety (AVS) will achieve administrative efficiencies through cost reductions and avoidance in various areas such as contractual services and supplies.	- 5,028	
Discretionary Adjustments	\$3,350	9
<b>Unmanned Aircraft System (UAS) Integration:</b> This increase supports the National Airspace System (NAS) Initiative to expand the safe and efficient incorporation of UAS. The program approach outlined in this Initiative includes adapting services and regulatory approaches in order to integrate UAS operations into the NAS in a timely fashion and with the same level of safety and efficiency as other legacy operations. The staffing requested will enable AVS to support increased demands for UAS services, such as the forthcoming certifications, operator applications and oversight and exemptions and Certificate of Authorization (COA) processes.	2,850	9
<b>Hazard Tracking System:</b> The Hazard Tracking System request will provide enhanced data consistency and reduce manual processes as well as mature the system from the initial capability. This request is aligned with the Administrator's Initiative on Risk-Based Decision Making (RBDM) by increasing data capabilities within the Hazard Tracking System for the collection safety information.	500	
Base Transfers	\$189	1
<b>Flight Standard Services Staffing (ATO to AVS):</b> This request transfers \$189K and 1FTP/1FTE from the Air Traffic Organization, Mission Support Services (ATO/AJV) to Aviation Safety, Flight Standard Services (AVS/AFS).	189	1

## AVS Primary Stakeholders – Update In Process (General Public is our Ultimate Customer)

Air Operator Certificates:	5,276	Active Pilots:	721,894
Major Air Carriers – (e.g. United Airlines)	81	ATP	157,738
Commuter Air Carriers/On Demand Air Ta	xis 2,075	Commercial	118,548
Commercial Operators (e.g. Baltimore Orio	oles) 80	Private	190,155
Foreign air carriers (e.g. Lufthansa)	492	Recreational	218
External Load (Logging/Oil Platform)	334	Sport	5,244
Agricultural Operators	1,850	Student	123,128
Public Use Authorities (State/City/Police)	364	Foreign Pilot	126,863
Air Agency Certificates:	5,980	Non-Pilot Air Personnel:	762,217
Pilot Training Schools	736	Mechanics & Repairmen	384,155
Repair stations	4,795	Control Tower Operators	36,855
Maintenance Training Schools	171	Flight Attendants	193,972
Pilot Training Centers	278	Ground Instructors	71,509
		Other (Dispatchers /Flight Navigators / Navigators /Parachute Riggers / Flight Engineers	75,726
Aircraft:	307,781		
Air Carrier Aircraft	7,237	Flight Instructors:	101,956
Commuter Air carrier Aircraft	155		
On-Demand Air Taxi Aircraft	10,695	Airmen Medical Examinations:	379,809
General Aviation Aircraft	289,694	Special Issuances	32,540
		Standard Issuances	347,269
<b>Aviation Authorities – Other Countrie</b>	es: 259		
36 Bilateral Agreements	36	Approved Manufacturers:	1,629
Foreign Carrier Aviation Authorities	191		
Accident Investigation Authorities	32	Aviation Industry Entities Covered by Anti-Drug & Alcohol Programs	1,619
Check Airmen:	12,537		
Part 121	4,553	National Transportation Safety Boar	d: 447
Parts 121/135	161	Safety Recommendations (5-year average	
Part 135	7,823	Open NTSB Safety Recommendations	341
		Major Investigations	32
Designees:	9,635		
Flight Standards	3,299	ATCS Medical Clearance Exams:	13,305
Aircraft Certification (includes ODAs)	3,142	Controller Workforce	13,219
Aerospace Medicine	3,194	Flight Service Station Workforce	86

Mechanics with Inspection Authority: 21,194

As of July 2015

## **Staffing Information**

	FY 2015 Actual	FY 2016 Enacted	Proposed Change	FY 2017 Request		
Direct Full Time Equivalents (FTEs)	7,068	7,246	kron Mini 193 W	7,339		
Flight Standards	5,133	5,247	26	5,273		
Aircraft Certification	1,294	1,328	16	1,344		
Aerospace Medicine	355	383	14	397		
Rulemaking	36	34	1	35		
Air Traffic Safety Oversight	125	128	0	128		
Accident Investigation and Prevention	64	65	2	67		
Unmanned Aircraft Systems	0	0	33	33		
Quality, Integration and Executive Services	61	61	1	62		
End of Year Employment (FTP)	7,196	7,406	15	7,421		
Flight Standards	5,210	5,354	-20	5,334		
Aircraft Certification	1,328	1,357	1	1,358		
Aerospace Medicine	360	397	0	397		
Rulemaking	39	36	0	36		
Air Traffic Safety Oversight	131	133	0	133		
Accident Investigation and Prevention	68	68	0	68		
Unmanned Aircraft Systems	0	0	34	34		
Quality, Integration and Executive Services	60	61	0	61		

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# Safety Critical/Operational Support Staffing End of Year Employment, Full Time Permanent

	FY 2015 Actual	FY 2016 Enacted	FY 2017 Request	
Flight Standards	5,210	5,354	5,341	
Engineers	23	12	4	
Aviation Safety Inspectors	4,026	4,184	4,177	
Safety Technical Specialists	424	456	453	
Operational Support	737	702	707	
Aircraft Certification	1,328	1,357	1,353	
Manufacturing Safety Inspectors	252	270	270	
Pilots, Engineers and CSTAs	745	756	752	
Safety Technical Specialist	183	172	172	
Operational Support	148	159	159	
Aerospace Medicine	360	397	391	
Physicians, Physician Assistants, Nurses	52	57	57	
Alcohol/Drug Abatement Inspectors	72	70	7	
Safety Technical Specialist	193	226	22	
Operational Support	43	44	4	
Air Traffic Safety Oversight	131	133	13	
Air Traffic Safety Inspectors	58	58	5	
Safety Technical Specialist	68	68	6	
Operational Support	5	7		
Rulemaking	39	36	3	
Safety Technical Specialist	36	33	3	
Operational Support	3	3		
Accident Investigation and Prevention Service	68	68	7	
Air Safety Inspectors	8	9		
Safety Technical Specialist	47	49	5	
Operational Support	13	10	1	
Unmanned Aircraft System Integration	0	0	3	
Air Safety Inspectors/Engineers	0	0	2	
Safety Technical Specialist	0	0		
Operational Support	0	0		
Quality, Integration and Executive Services	60	61	6	
Safety Critical Staff	6	12	1	
Operational Support	54	49	4	
Total	7,196	7,406	7,42	
Safety Critical Staff	6,193	6,432	6,43	
Operational Support	1,003	974	98	

As of January 2016

## **AVS Workload Indicators**

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	FY 2015	Estimated	FY 2016	Estimated	FY 2017
Flight Standards	Actual	Change	Estimate	Change	Estimate
Airmen Certification Activities	220,349	4.1%	220 276	3.9%	238,203
			229,276		
Operator Certification / Certificate	103,286	2.2%	105,604	2.2%	107,922
Management Activities	42 256	1 70/	42.076	1 70/	42 605
Investigation Activities	42,256	1.7%	42,976	1.7%	43,695
Non-ATOS Air Operator / Air Agency Surveillance Activities [Includes other	213,992	0.5%	215,051	0.5%	216,110
than Part 121 Carriers]*					
ATOS Operator Surveillance Activities	84,169	-1.0%	83,310	-1.0%	02 450
Enforcement and Investigation Activities	10,784	-4.3%	10,315	-4.5%	82,450
		the second s			9,846
Education and Safety	11,715	10.0%	12,886	10.0%	14,175
Aircraft Registration Activities	713,000	5.0%	748,650	1.0%	756,137
Airmen Certification Examinations	636,965	3.0%	656,074	3.0%	675,757
Activities					
Aircraft Certification	1 02 1	0.00/	1.042	0.404	1 000
TC/STCs Issued	1,034	0.8%	1,042	-0.4%	1,038
Other Design Approvals Issued	3,137	0.5%	3,153	-0.3%	3,144
Production Approvals Issued	65	0.0%	65	1.5%	66
Airworthiness Directives Issued	358	3.4%	370	3.5%	383
Certificate Management Audits	2,462	0.3%	2,470	-0.8%	2,451
Aerospace Medicine					
Applications Processed / Received	379,809	-0.5%	378,008	1.5%	383,678
DWI/NDR Recommendations Processed	5,916	10.0%	6,508	1.5%	6,606
Number of AMEs	3,194	-2.6%	3,112	1.5%	3,159
Anti-Drug and Alcohol Registrations	200	0.0%	200	0.0%	200
Completed					
Anti-Drug and Alcohol MIS Annual	4,000	0.0%	4,000	0.0%	4,000
Reports	524		0.2."		
Compliance and Enforcement	1,100	50.0%	1,650	0.0%	1,650
Inspections					
Number of Drug Tests	9,584	4.9%	10,058	0.0%	10,058
Number of Alcohol Tests	5,338	5.0%	5,605	0.0%	5,605
Accident Investigation and					
Prevention					
NTSB Recommendations Received	100	0.0%	100	0.0%	100
Accidents / Incidents Investigated	36	11.1%	40	0.0%	40
Follow-up Investigations	315	8.6%	342	1.8%	348
Special Accidents / Incidents	250	-100.0%	0	0.0%	0
Investigated					
NTSB Hearings Participated In	3	0.0%	3	0.0%	3
FAA Recommendations Received	300	0.0%	300	0.0%	300
NTSB Requests Received	672	0.4%	675	-1.9%	662
Rulemaking				,0	
Exemptions	425	76.5%	750	100.0%	1500
Petitions for Rulemaking	25	-40.0%	15	33.3%	20
Rulemaking Projects	30	-16.7%	25	0.0%	25
Aviation Rulemaking Advisory Committee	0	0.0%	0	0.0%	0
Tasks	2	150.0%	5	-20.0%	4
Recommendations	2	150.0%	5	the second s	4
	2	150.0%	5	-20.0%	4
Air Traffic Safety Oversight Safety Analysis and Audits	168,500	0.0%	168,500	-8.8%	153,706
	108 500	1119/0	108 500	-N NV/0	154 /11

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	FY 2015 Actual	Estimated Change	FY 2016 Estimate	Estimated Change	FY 2017 Estimate
Safety Incident Investigations	12,569	0.0%	12,569	135.5%	29,604
Air Traffic Change Approvals	10,400	0.0%	10,400	102.3%	21,035
Safety Report Reviews	24,599	0.0%	24,599	27.4%	31,327
Airmen Credentialing / Examination	27,899	0.0%	27,899	-31.8%	19,029
Education and Safety	52,500	0.0%	52,500	-20.4%	41,766

As of October 2015