WE ARE AVIATION SAFETY

2018 AVS Year In Review

"AVS is a learning and adaptive organization"

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This year, the entire FAA and our aviation safety team at AVS drove significant advances to make commercial and general aviation even safer. Despite our progress, however, the first U.S. commercial airline fatality in nine years reminded us of why we must remain vigilant. Fortunately, AVS is a learning and adaptive organization. We responded to the event that occurred on Southwest Airlines Flight 1380 with dedication and focus.

The following accomplishments attest to our focus on safety and new technologies. In Fiscal Year 2018, AVS:

- Generated greater voluntary reporting of safety problems through our approach to compliance.
- Held stakeholder summits and symposiums to address wrong surface events, the pilot and mechanics shortage, and medical advances that enable pilots undergoing cancer treatments to safely fly.
- Updated safety agreements with the European Union, Brazil, Canada, China and Singapore.
- Approved all Part 121 air carriers' Safety Management Systems.
- Rapidly implemented the 10 UAS Integration Pilot Programs.
- Upgraded our quality certification to ISO 9001:2015.

These efforts build on 60 years of FAA safety innovation and our determination to take on complex challenges.

This report highlights AVS's Fiscal Year 2018 safety activities and accomplishments. It contains essays by AVS leaders on how we are addressing the challenges of wrong surface events, oversight, expanded automation, international initiatives, Aircraft Certification Transformation, change management and diversity and inclusion. Also, some of our team members relate why they relish getting up in the morning to help advance aviation safety. Throughout this year, AVS's people have proven they are up to the task of delivering results for the American public. I am proud of this record and appreciate the opportunity to highlight the great work of our team.

Ali Bahrami
Associate Administrator for Aviation Safety

60 Years of FAA Safety Innovation

On August 23, 1958, President Dwight D. Eisenhower signed into law the Federal Aviation Act, legislation establishing the Federal Aviation Agency (FAA) as the new agency responsible for aviation safety in the country of powered flight's invention. The FAA began operations on December 31, 1958 (FAA was renamed the Federal Aviation Administration in 1967, when the Department of Transportation was formed.)

In the ensuing 60 years, from the jet age to the drone age, the FAA has remained steadfast in its mission to provide, the safest, most efficient aerospace system in the world. Thanks to the FAA's constant work with industry and other stakeholders over the past six decades, we have witnessed a steady stream of aviation safety improvements. Today a solid foundation exists to build on this record of accomplishment as we face the aviation challenges of the future.

60 YEARS OF SAFETY
Remember, Respect, Renew

1958-1968

- Civil Aeromedical Research Institute established in Oklahoma City. (1959)
- FAA and Flight Safety Foundation deliberately wreck Douglas DC-7 to address problem of preventing post-crash fatalities. (1964)
- 90-second evacuation rule for airplanes with more than 44 seats. (1967)

1969-1978

- Use of safety belts required for all civil aircraft during takeoffs and landings. (1971)
- Comprehensive revision of Federal Aviation Regulations Part 135, governing air taxi and commuter airline operations. (1978)

1979-1988

- Mandate for fire-resistant seat cushions and emergency escape path markings. (1984)
- Passenger airlines required to carry large emergency medical kits, in addition to basic first aid kits. (1986)

1989-1997

- Improved certification standards for rotorcraft. (1989)
- FAA and Air Transport Association partner to equip aircraft with advanced terrain awareness warning systems. (1997)
- The FAA establishes the Commercial Aviation Safety Team (CAST), which adopts a proactive focus on detecting risk and implementing mitigation strategies before accidents or serious incidents occur. (1997)

1998-2008

- Upgraded flammability standards for materials used in transport airplanes. (2003)
- FAA and the DOT Research and Special Programs Administration ban cargo shipments of non-rechargeable lithium batteries aboard passenger flights. (2004)
- First airworthiness certificate for a civil unmanned aerial vehicle. (2005)
- The FAA and the aviation industry develop the Aviation Safety Information Analysis and Sharing (ASIAS) program. (2007)

2009-2018

- FAA adopts a new approach to "compliance," encouraging the self-reporting of safety problems. (2015)
- New Part 23 rule establishes performance-based standards for GA aircraft. (2017)
- U.S. commercial airlines meet the 2015 FAA requirement to have Safety Management Systems in place by 2018.
- FAA marks 60th anniversary with continued progress on commercial and general aviation accident reduction goals. (2018)

2018 Aviation Environment

Active Pilots	**736,461**
Remote Pilots Certificated	106,026
Designees	**9,089**
Aircraft Certification	2,844
Flight Standards	3,627
Aerospace Medicine	2,618
Flight Instructors	**108,273**
Approved Manufacturers	**1,539**
Mechanics with Inspector Authority	**22,460**

Registered Aircraft	**1,453,940**
Unmanned Aircraft	1,223,073
Air Carrier Aircraft	7,631
Commuter Air Carrier Aircraft	710
On Demand Air Taxi Aircraft	8,621
General Aviation Aircraft	213,905
Air Operator Certificates	**5,068**
Air Agency Certificates	**6,219**
Airmen Medical Examinations	**384,798**
Air Traffic Specialist Credentials	**21,649**

Taking a Comprehensive Approach to Safety Issues

The Office of Accident Investigation and Prevention (AVP) is the FAA's principal organization for accident investigation and all activities related to the National Transportation Safety Board (NTSB) We work across FAA organizations and with stakeholders to identify safety issues and develop safety risk control strategies to mitigate risk to an acceptable level. We analyze a comprehensive set of system safety data, identify emerging safety issues, and coordinate actions to mitigate risk before accidents occur. This helps us focus on decreasing the aviation fatal accident rate and direct resources to the greatest safety risk.

So what does this mean in practice? The agency's work this fiscal year on "wrong surface" incidents helps put our systematic approach to safety in focus. From Fiscal Year 2016 through August 2018, the FAA has documented over 1,000 incidents involving improper runway alignment during landings or takeoffs, including pilots landing at the wrong airport. This is a key concern which our Safety Risk Management Team has identified as a "high risk" hazard.

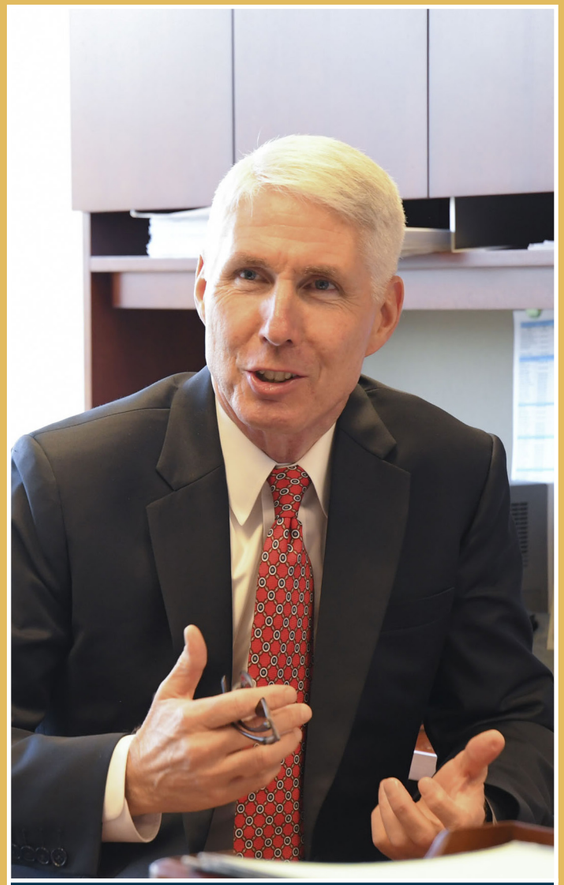
One such near miss occurred in July 2017, when Air Canada Flight 759, on final approach at San Francisco International Airport, initiated a go around about 100 feet above the ground once the flight crew realized they were aligned on a taxiway. Immediately following this incident and throughout Fiscal Year 2018, AVP worked closely with the NTSB to investigate the event and determine an appropriate response. Our work throughout the FAA resulted in several immediate and longer-term proactive safety measures initiated by the FAA. In addition, the FAA SMS Safety Council initiated our Safety Issue Identification and Management process immediately following the Air Canada incident to see if there were similar events requiring focused attention, and began coordinating with stakeholder organizations across the FAA including Air Traffic and Airports.

Throughout the year, AVP in coordination with other FAA lines of business and the aviation industry continued to take proactive measures to prevent wrong surface incidents by engaging with local airport communities and joint government-industry safety teams such as the Commercial Aviation Safety Team (CAST) and the General Aviation Joint Steering Committee (GAJSC).

Steve Gottlieb

The Aviation Safety Information Analysis and Sharing Program (ASIAS) and Commercial Aviation Safety Team (CAST) received the *2018 Aviation Week and Space Technology* Laureate Award for Commercial Safety. The groups were lauded for "an unparalleled collaboration between government and industry to improve aviation safety…leveraging industry data and analytical tools from ASIAS."

Due to our risk-based data driven approach to enhancing aviation safety, the FAA continued to meet in FY 2018 our goals for reducing commercial air carrier fatalities per 100 million persons on board by 50 percent over the period 2008-2025. We also met our target to reduce the general aviation fatal accident rate to no more than one fatal accident per 100,000 flight hours by 2018.



AVP Executive Director

To address the broader issue of wrong surface events and discuss ways in which industry and government stakeholders can work together to reduce their occurrences, the FAA held a "Safety Summit" in Leesburg, Va., on August 21, 2018. The Safety Summit included representatives from airlines, the business and general aviation communities, large and small airports and government agencies. Summit participants described three leading contributing factors to wrong surface events: the geometry of airport surfaces, a pilot's visual perspective and communications with air traffic control. Among solutions discussed were promoting and using situational awareness tools, updating Advisory Circulars, including more information on wrong surface landings in training and expanding data sharing.

The wrong surface issue represents just one of the safety issues AVP addressed this year. Through our data-driven strategy and work with the GAJSC, the General Aviation community reduced the general aviation fatal accident rate to no more than one fatal accident per 100,000 flight hours. We have also developed risk reduction strategies to address rotorcraft safety, potential mid-air collisions with gliders, and Class B Airspace Excursions. Each issue, though different in nature, required AVP to work across the FAA and industry. Through this collaboration, we facilitate the sharing of safety information, analyze systemic risk and develop safety mitigation strategies.

Within AVP, all of our divisions have the same overarching goal in mind--to use all available safety data, safety management principles, and our extensive and diverse expertise to support the FAA with making smarter, risk-based decisions for proactive safety improvement.

We've all heard the question: 'What keeps you up in the middle of the night?' AVS people have a different approach. They get up each morning eager to work on advancing aviation safety, thus helping to reduce late night worries. On this and subsequent pages, AVS people tell their 'What gets me up in the morning' stories.

What Gets Me Up in the Morning

Elizabeth Thomas

Management and Program Analyst — **FS**

Describe how/when you first got interested in aviation? What was the spark?

I've always been interested in aviation but it took a little time for me to truly feel the spark. After serving as an administrative assistant for several Flight Standards (FS) policy divisions, I had the opportunity to become an executive assistant in the FS front office working for John Duncan, John Barbagallo, Mike Zenkovich, and the rest of the front office staff. Shortly after beginning my time in the front office I began to understand that what we do here in the FAA impacts not only the U.S., but our work influences the world. Having the chance to see what goes on from a higher level gave me a better understanding of the "big picture" and has encouraged me to continue my career in the FAA.

What program/project are you working on that will make aviation even safer in the future?

In the Flight Standards International Program Office, we are working on projects to provide the safest, most efficient aerospace system in the world. One way we do this is through information sharing at international conferences. This year I, along with others in FS and the FAA Office of International Affairs (API), worked with the Mexican Directorate General of Civil Aeronautics (DGAC) to plan the 32nd "Amigos de la Aviación" Safety Conference in Monterrey, Mexico. This conference is an annual event that delivers operational safety content to Civil Aviation Authorities, the aviation public, and the industry. This year, over 1,000 aviation-professionals from the region participated, and we are hoping for the same great turn out as we begin to plan the 2019 conference.

We're moving toward a OneAVS approach to doing business. Do you see that shift occurring in your program? What hurdles are in the way?

I have seen a slight shift in my program, however I think more discussion about the desired behavior and outcomes would help. Also, seeing OneAVS in action by our management and executives would help set the standards for other employees.

What really gets you up in the morning to work at FAA (as opposed to "keep you up at night")

The thing that gets me up in the morning is being able to work with such great people; not only in my division but in all of AVS. The people I work with are always willing to help and perform at such a high caliber, that it encourages me to always do my best work.

Compliance: Driving Better Safety Outcomes

Decades of experience with voluntary safety programs have demonstrated the best way to solve safety problems quickly and effectively is to open up lines of communication with our partners who see problems first-hand, and to resolve problems together before they escalate into bad outcomes.

I am confident that anyone who has worked with the Aviation Safety Action Program (ASAP), Voluntary Disclosure Reporting Program (VDRP), or other voluntary safety programs can instantly recognize and fully embrace our vision for achieving compliance by using non-enforcement methods to correct unintentional aviation safety violations. Collaboration with our willing partners in the regulated community of manufacturers, air carriers, and operators is driving better long-term safety outcomes. It helps us achieve that next important increment of safety in our aviation system by positively influencing the safety culture of all aviation stakeholders. It is a shared commitment to open reporting of problems and the use of appropriate tools to fix them before they cause accidents or incidents.

Now into its third year of implementation, the FAA's Compliance Program has led to a 60 percent decrease in enforcement actions through collaborative problem solving. Subsequent actions to correct these problems has resulted in a 26 percent increase in overall actions to address regulatory noncompliance. The numbers support FAA's contention that an open, non-punitive and transparent relationship with stakeholders is encouraging the critically important flow of actionable safety information.

The success of initiatives like the Commercial Aviation Safety Team (CAST) and Aviation Safety Information Analysis and Sharing (ASIAS) depend on a culture that fosters information sharing and encourages timely implementation of corrective actions and safety improvements. Providing stakeholders the incentive to self-report problems without having to fear immediate punitive action promotes open and honest communication that allows us, in partnership with the broader aviation community, to find problems, fix them, and elevate our culture of safety. Additionally, the FAA's approach to compliance enhances our decade-long effort to implement Safety Management Systems with our industry partners.

Through this approach, we are also ensuring speedier adoption of corrective actions instead of leaning on a potentially lengthy and counterproductive enforcement process. For instance, the $100,000 fine for a safety violation could instead fund the operator's establishment of a Quality Assurance office. When responsible certificate holders act to fix their own problems, everyone benefits from faster resolution of a safety issue in the National Airspace System (NAS).

While the FAA's Compliance Program applies to all offices within Aviation Safety (AVS), I'll present some useful examples from the Flight Standards Service. One air carrier is working closely with our Certificate Management Office (CMO) to foster an open and transparent relationship based on compliance. The carrier gives all assigned CMO personnel unfettered access to over 1,000 Tableau report books that access 84 databases. Twenty-six of the report books are dedicated to reporting, tracking, trending and managing corrective actions for safety and non-compliance events. FAA CMO personnel can use the databases at any time to determine risk, take appropriate corrective actions, and target their surveillance to increased or emerging risk, thereby providing efficient use of our resources and supporting safe operations.

Collaboration makes it work. For example, a major air carrier transporting a large pallet of Section II Lithium Batteries participated in a compliance action when we discovered the pallet was covered with black opaque plastic and appeared to be non-hazmat cargo. In the traditional enforcement model, the air carrier would likely pay a fine without having to develop a fix. In this case, the operator conducted retraining that focused on the need for proper labeling of dangerous goods shipments. The compliance action process steered the carrier to self-assess the non-compliance, conduct a Safety Risk Assessment, and develop an effective solution. The assessment focused on both the regulatory risk (there was no visible hazard warning) and a potential worst-case scenario had the unlabeled hazmat been mishandled, bumped or damaged during loading.

There are also safety benefits in general aviation. During a routine check of a pilot school's personnel records, the school discovered that the chief instructor was not in compliance with the requirement to receive a flight instructor refresher course (or equivalent) every 12 months. The lapse was due to an honest misunderstanding of two different FAA training requirements. The school's self-reporting of this lapse alerted us to a larger systemic problem that we could correct.

In these and in many other ways, the Compliance Program has created greater transparency and efficiency, leading to faster, more effective corrective actions. It helps reduce the risk of continued noncompliance and allows us to focus resources on other aspects of safety oversight.

The bottom line is simple: let's communicate, collaborate, help each other to operate safely out there, and keep working together to enhance aviation safety.

Rick Domingo

The reorganization of Flight Standards as part of a 5-year cultural shift gives impetus to continual improvement in safety oversight, incorporating essential behaviors of critical thinking and interdependence to improve consistency across the service and with stakeholders. The cultural and structural changes have enabled FS to be a more agile, efficient, and consistent organization.

The FAA reached a major milestone in the implementation of Safety Management Systems, with approval of all 70 Part 21 Air Carrier Safety Management Systems (SMS) by the March 9 deadline. The SMS programs have yielded effective corrections to identified issues and enhanced the Air Carriers' safety cultures.

FS Executive Director

What Gets Me Up in the Morning

Brandon Roberts

Deputy Executive Director — **ARM**

Describe how/when you first got interested in aviation? What was the spark?

My mother tells me I was born with wings. I don't remember a moment when I wasn't interested in aviation. As a toddler, my grandfather's Air Force flying stories fascinated me. Before I entered kindergarten, I knew I wanted to be a fighter pilot. The long path to achieving that goal continued to reinforce my interest in aviation.

> *"Working with other passionate people who love what they do keeps me motivated."*

What program/project are you working on that will make aviation even safer in the future?

In the Office of Rulemaking (ARM), we help policy offices navigate the regulatory processes to propose and finalize their safety regulations. One of the projects we're working on right now is a proposal to change the part 107 drone rules by adding new requirements for small unmanned aircraft systems (UAS) intended for flight over people. The performance-based proposal includes a safety threshold for UAS manufacturers that will allow them to design and incorporate innovative safety features that could eventually propagate to the entire small UAS fleet. As the use-cases for UAS continue to grow, this will ensure we're maintaining safety in these new aviation operations as we simultaneously expand the operational envelope.

We're moving toward a OneAVS approach to doing business. Do you see that shift occurring in your program? What hurdles are in the way?

ARM is a small office that services the entire FAA; "OneAVS" is not a catchphrase for us, it's a necessity. Our rulemaking teams are cross-functional across lines of business and service offices (LOB/SO), and collaborating outside our organization is part of our culture. There are always hurdles – for example, sometimes we struggle finding the correct point-of-contact for a specific policy when external organizations go through a re-organization or change their internal processes. But these hurdles are minor; one of the things that makes AVS a fantastic organization is that every employee agrees that our mission is safety. Since we all have a common mission, it makes it easy to collaborate and recognize our interdependencies.

What really gets you up in the morning to work at FAA (as opposed to "keep you up at night")

I love airplanes, but what really keeps me excited and engaged are "airplane people." The FAA is full of great people who love aviation; working with other passionate people who love what they do keeps me motivated and inspires me to contribute my best effort toward making our aerospace system the safest, most efficient in the world.

Automation is the Future of Aviation

When the FAA began operations in 1958 more advanced jet and rocket technology were making the unimaginable possible. Sixty years later, we again find ourselves on the cusp of a new era — the Age of Automation.

Automation and Unmanned Aircraft Systems (UAS), or drones, are rapidly changing the way we conduct countless jobs, from monitoring our borders and protecting endangered species to disaster response and aerial photography. Just as automation has changed manned aviation — where "stick and rudder" piloting skills are replaced by computer software — the concept is even more evident in UAS operations. In response to the pace of technological advance, we are fundamentally changing our approach to regulation.

This year, the FAA's Office of Unmanned Aircraft Systems Integration (AUS) worked to swiftly review applicants for the Department of Transportation's UAS Integration Pilot Program (IPP), leading to the selection of 10 Lead Participants in May. We also accomplished the national roll out of the Low Altitude Authorization and Notification Capability. This key technology, which enables authorization of UAS operations near airports in real time, was beta implemented with FAA's Air Traffic Organization. Additionally, we implemented the automation of registration and waiver requests through the FAA DroneZone online platform. And the FAA worked closely with federal security partners and a number of domestic and foreign airports to evaluate UAS detection technology at airports, allowing us to report to Congress on the capabilities and challenges of this technology. While there are currently under 300,000 manned aircraft registered by the FAA, we have already registered more than a million drones since we began registering them in 2016. We are now averaging about 3,700 commercial UAS registrations and the certification of nearly 1,000 new remote pilots every week—amounting to one-sixth of all pilots.

This volume, in this amount of time, is unprecedented for the FAA, requiring new regulatory strategies and streamlined processes. Instead of utilizing an incremental approach to drones, based on higher regulatory standards required for increasingly complex operations, we have adopted an "operations first" strategy. We are taking a comprehensive look at these complex operations and trying to figure out what we can and cannot do under our existing regulatory framework.

"Operations first" is key to maintaining safety while adapting to the industry's creativity — and the IPP is critical for addressing integration challenges in collaboration with state, local and tribal interests. In August, IPP Lead Participants entered into the operations phase of their respective programs. They are exploring agricultural operations and inspections for infrastructure, pipeline, and perimeter security surveillance. Some will focus on medical package delivery — one in particular is proposing delivering life-saving defibrillators. All of these activities are pushing the envelope, whether through operations conducted over people, beyond visual line of sight and at night, or utilizing a variety of technologies in diverse operating environments. They will give us critical data to help advance the safe integration of drones into our nation's airspace and our communities.

To address an emerging safety and security concern, the FAA is working to implement the December 2017 recommendations of our Aviation Rulemaking Committee for achieving the remote identification of drones. Also, we are working on the next steps of UAS integration, helping to make sure operators know what they can already do in the National Airspace System under existing rules, and helping to build public acceptance about the cultural change necessary to deal with this next era of aviation.

We often have a reputation for being slow and deliberative, and for good reason. Safety will always be our prime imperative. But we also recognize the need to be flexible and continue to adapt to this Age of Automation and the rise of drones. By combining applied research with operations in the field, we can create rules and new regulations that will ensure safety and provide paths to expanded operations. This will help us not only prepare for the Age of Automation, but also for whatever else the future brings.

AUS Executive Director

Earl Lawrence

The number of remote pilots surpassed 100,000 and the number of registered commercial drones exceeded 220,000. FAA is creating the rules and the systems we need to facilitate UAS integration with part 107, the DroneZone, and Low Altitude Authorization and Notification Capability (LAANC). While we work on creating flexible performance-based rules, we are still enabling more advanced operations with part 107 waivers, Partnership for Safety Plans, and the UAS Integration Pilot Program.

The FAA implemented the Unmanned Aircraft System Integration Pilot Program, providing state, local, and tribal governments the opportunity to accelerate the integration of UAS into the national airspace. It helps the FAA craft new rules for low-altitude drone operations.

What Gets Me Up in the Morning

Carla Hackworth, Ph.D.

Division Manager, Civil Aerospace Medical Institute — **AAM**

Describe how/when you first got interested in aviation? What was the spark?

During Graduate School, I was fortunate to work as an FAA contractor in Miami, on a project examining fatigue and sleep schedules for air traffic controllers. It sounds like a dream and, in many ways it was, I mean Miami, right? And yet, we worked 20 out of 21 days, and I took the early 6 am shift. We were at Miami Center, which drove home the fact that we were no longer in an ivory tower. The experience allowed me to apply research skills I had only used in the lab and academic settings, gathering data from controllers who would drop off their sleep schedule log books. My trajectory was forever changed by this wonderful opportunity. My grandfather had worked for the FAA but I never had an appreciation for what that meant until my Miami Center experience revealed the vast opportunities the agency offered to do meaningful, applied research.

What program/project are you working on that will make aviation even safer in the future?

CAMI's Research Divisions perform research in the areas of: forensic toxicology, biochemistry, genomics, mathematics, bioinformatics, radiobiology, physiology, cabin safety, accident investigation, biodynamics, advanced vision systems, avionics, maintenance human factors, organizational assessment, air traffic controller selection, training, person-job fit, human performance, and the impact of changes in technology. Each task has a unique set of requirements, purposes and outcomes. Picking only one might imply that others are not improving safety. All of our tasks have that as a goal –plus, I have been a manager long enough to know that I could make one person proud and 90+ feel slighted—not a wise choice. The fact is humans are integral to every aviation system in the National Airspace System (NAS). The decisions that humans make in the pilot seat or at an air traffic control station are fundamental to the safety of the NAS but they add layers of complexity. Our research is aimed at the issues that arise in the problem space of that complexity. Our research findings provide the foundation for the policy and regulatory decisions that are published to increase the scope of operations of the NAS and the efficiency of aircraft movement. They also empower policy holders to make data-driven decisions that enable optimized selection and placement of air traffic controllers, implementation and standardization of new and innovative systems, and revisions to existing policies, with the goal of reducing errors and improving the safety and efficiency of the NAS.

We're moving toward a OneAVS approach to doing business. Do you see that shift occurring in your program?

Aeromedical and human factors research are integrated in AVS and ATO operations as the human is a key piece in most, if not all areas of the National Airspace System. We work with sponsors from all lines of business and organizations across the FAA. Our goal is a data driven approach to maximize the strength of the human within the system and minimize risk by formulating evidenced-based criteria that will lead to improved knowledge management and decision-making processes in aerospace medicine, aircraft certification, flight standards, air traffic, and accident investigation and prevention programs. I have learned that each organization and LOB feels different pressures based upon stakeholders, work mission and priorities, and other external constraints. Finding the common ground with sponsors and stakeholders to identify how research can assist and what we can deliver as a product is key to our success.

What "stretch" goal would you like to see FAA pursue to enhance aviation safety?

I would like to see the FAA leverage the human factors scientists, operational research analysts, and aeromedical and human factors engineers to utilize real-time data analytics to replicate the NAS so that we are able to test and vet the impact of the many systems and procedures that we have in place or are on the horizon in a simulation of a full mission operation. Often there is a design for the optimal, and that simply doesn't match with the majority of what unfolds day to day. Calculating the real-time benefits of new procedures or software and insuring that they meet users' needs and will be used as intended are goals that I have in mind. Our products are based on sound science, do not duplicate others' efforts, and directly contribute to the public good. Aeromedical and human factors expertise are fundamental to continued technical and scientific discovery and assures FAA's future as a world leader in aviation safety. I want the FAA to continue to maintain and improve aviation safety and share our expertise and accomplishments with the other modes in the DOT.

What really gets you up in the morning to work at FAA (as opposed to "keep you up at night")

My colleagues, my upper management and leadership, and my family and friends. I want to add value and make my time count while I have it. I have lived long enough and am experienced enough to know that every day is a gift. We spend a lot of time at work. I want my accomplishments to count, have value, and be worth the effort that I invest.

A Transformative Process at Aircraft Certification

Prior to joining the FAA 12 years ago, I worked at GE Aviation where I saw first-hand how challenging and rewarding it is to design, develop, test and evaluate a new jet engine model. Here at AVS, I have a terrific opportunity to help evaluate a different sort of change: the transformation of the Aircraft Certification Service (AIR) to improve the Aircraft Certification Safety System. We are moving in this direction by being true to Peter Drucker's advice that, "Efficiency is doing things right; effectiveness is doing the right things."

AIR took a major step last year implementing a new, functionally aligned organizational structure so that it can better respond to the dynamic aviation environment and continue to serve our stakeholders. This realignment recognizes that the aviation system is rapidly changing, placing greater demands on its participants. As the aviation system becomes more complex, interconnected and reliant on new technologies, the aircraft certification system in use today may be hard-pressed to meet future demands, resulting in delays in certification of new aircraft and equipment. The last thing we want to do is discourage innovation and stall the introduction of new products that could further improve aviation safety.

My team in the AIR-300 Division works collaboratively with AIR's other Divisions—International, Policy & Innovation, Compliance & Airworthiness, System Oversight and Enterprise Operations—and external stakeholders to plan for the future, support continuous improvement of our performance, provide robust analysis services and enable a culture of strong change management.

In Fiscal Year 2018, the Aircraft Certification Service worked on putting in place a structure to engage with industry stakeholders. In January, a Safety Oversight and Certification Aviation Rulemaking Committee (ARC) was established, enabling aerospace industry stakeholders to evaluate the aircraft certification and safety oversight system and make recommendations for changes to current regulations and guidance material. The ARC will submit by the end of 2018 recommendations related to FAA safety oversight and certification programs and activities and to the FAA's existing regulatory structure.

AIR-300 Director, Organizational Performance

Colleen D'Alessandro

In FY2018 AIR published the first edition of its Comprehensive Strategic Plan (CSP). The CSP translates the Blueprint for AIR Transformation into a broad set of initiatives that, when fully implemented, will transform the Aircraft Certification Safety System.

AIR Launched the Safety Oversight and Certification (SOC) Aviation Rulemaking Committee (ARC) and hosted key meetings to evaluate the FAA's aircraft certification and safety oversight system and make recommendations to help improve the efficiency and effectiveness in how we collectively manage product safety.

Another means of prompting constructive industry and regulator engagement is the ongoing Organization Designation Authorization (ODA) Scorecard, a tool and process to help the FAA and industry engage in a productive dialogue, and jointly develop national and local action plans that help ODA holders and the FAA identify and correct or improve on processes and relationships. We are linking how well we do each year on the Scorecard to our annual self-evaluation of AIR's performance.

This year AIR also instituted an Organizational Health Monitoring (OHM) Program, which uses a risk-based approach to monitor, measure, assess, and respond to changes in AIR's organizational health and system performance. This program in part is a response to the fact that too often in the past, AIR managers and employees spent time gathering data that turned out to be of minimal usefulness. We also worked on OHM prototype activities and finishing the first OHM risk assessment to help rank AIR activities and develop key metrics for FY 2019. Beginning in November, we will utilize OHM data to inform the work of our AIR Dashboard in driving more strategic decision-making. OHM will be closely linked to how we evaluate data that supports our Quality Management Systems.

Finally, AIR released in September a long in development Comprehensive Strategic Plan that is closely tied to the upcoming AVS Strategic Plan. It contains transformative initiatives for the Aircraft Certification Safety System touching on everything from safety regulations and policies to how AIR and industry engage to achieve mutual objectives.

We have a long journey ahead of us to achieve the objective of making AIR's Transformation a success. But we are well on our way, and I'm excited to be a part of it!

What Gets Me Up in the Morning

Dawn LeBlond

Describe how/when you first got interested in aviation? What was the spark?

I grew up in a military family and one of the highlights of my childhood was the summertime airshow season. I loved watching all of these different planes soar through the air with precision and control, and meeting those pilots was like meeting celebrities. But, I never thought about aviation as a possible career until I joined the Navy after college. I spent a few years learning how to fly in the Naval Flight Officer program and absolutely loved it.

What program/project are you working on that will make aviation even safer in the future?

As the strategic planner for Aircraft Certification Service (AIR), I've been working on getting our executive leadership's vision and priorities down on paper in our Blueprint for Transformation and Comprehensive Strategic Plan (CSP). Putting together these documents took a lot of collaboration across AIR and our stakeholders, and required close alignment with AVS, FAA, and DOT goals. The CSP provides a critical platform to get our workforce aligned with our strategic objectives. It also provides a basis for dialogue with our stakeholders, and gives everyone impacted by AIR an opportunity to understand where we're going.

We're moving toward a OneAVS approach to doing business. Do you see that shift occurring in your program? What hurdles are in the way?

One of the foundational elements of my job is collaboration. In developing the Blueprint and the CSP, we were constantly asking the question "What about the rest of AVS? What about our stakeholders?" By doing this, we were able to confidently move forward, knowing we were going to be closely aligned with AVS priorities. This culture of collaboration will need to continue to be nurtured. As far as hurdles, the biggest hurdle I see is time and energy. It takes a lot of up front investment to collaborate effectively. It may seem like progress is slow while the dialogue is happening. But, there's a moment when things click, and all of a sudden you're a million miles down the road and you have no idea how you got there. That's so cool, but it takes some perseverance if you're going to see it happen.

What "stretch" goal would you like to see FAA pursue to enhance aviation safety?

My focus has always been on the people. I have the privilege of being surrounded by really smart, innovative, creative, passionate people. I'd love to see the FAA pursue a stretch goal around truly developing our people. Seeing the FAA invest in and create a single career development program would be awesome: a single program working across the modes and other agencies, working with OPM, working with industry and our labor unions to create a purpose-driven passionate working environment. We already do amazing things here at the FAA, but with a little focus, I think we could revolutionize our role as regulators and find innovative and creative ways to align industry's interest with the public's interest.

> ***"One of the foundational elements of my job is collaboration."***

What really gets you up in the morning to work at FAA (as opposed to "keep you up at night")

I have to say our purpose and the people get me up every morning. I love knowing that my job supports our mission and that, every day, I can make an impact on the safety and efficiency of our system. And, I get to work with awesome people every day. I don't get to see all my colleagues very often, because a lot of the people I work with are scattered around the country. But I can connect virtually with my peers and have deep philosophical conversations that open my eyes to something I never considered before. I learn something new every day, I'm constantly being challenged, and I'm better for it – every day.

Strategic Planner AIR

Global Partnerships for Aviation Safety

Fiscal year 2018 was an exciting and productive year for AVS international activities. In an organizational update, AVS created a new International Strategies office to help maximize our international efforts within AVS and our links to other FAA organizations. Going forward in FY19, this office will provide a focus for collaboration in developing and communicating AVS strategic goals and activities for international engagement.

During this year, AVS has kept up a steady pace of activity to update safety agreements with partner nations; provide technical assistance to foreign civil aviation authorities; and enhance safety outcomes in global bodies such as the International Civil Aviation Organization (ICAO). The following examples illustrate the expansive scope of AVS' global engagement.

Last October, the Aircraft Certification Service and the Civil Aviation Administration of China (CAAC) signed Implementing Procedures for Airworthiness under the U.S.-China Bilateral Aviation Safety Agreement recognizing each other's regulatory systems with respect to the design, manufacture, and continued airworthiness of aviation products and articles. The agreement supports the Service's refresh of certification strategy by responding to stakeholder needs and promoting the seamless transfer of products and approvals globally. Another advancement for aviation safety in China was spurred by our 737 MAX Chinese Validation Team. To help ensure the timely modernization of the fleet of aircraft operated by Air China, our team developed creative proposals to the CAAC for jump-starting and compressing the validation process for delivery of 70 Boeing 737 MAX aircraft to Air China. The CAAC completed its validation last October, allowing the completion of Boeing's planned deliveries by the end of 2017.

Throughout the year, we worked with colleagues from across the FAA and around the world through the Joint Authorities for Rulemaking on Unmanned Systems to refine common methods for UAS risk analysis. Version 2.0 of the Specific Operations Risk Assessment, or SORA, will provide a common risk framework for UAS operations that can be used by global regulators and industry.

In a broader focus on harmonizing rules, the Office of Rulemaking is working to update Rulemaking Cooperation Guidelines with the European Aviation Safety Agency and Transport Canada Civil Aviation to incorporate lessons learned and provide a strategic vision of the cooperation, which reduces regulatory burdens, increases safety and promotes effective oversight.

To facilitate compliance with international standards and ensure that countries provide proper oversight of each air carrier operating into the United States, the Flight Standards Service conducted International Aviation Safety Assessments in four countries with operators either serving or requesting service to the United States. Also, the Service's technical assistance to Kenya resulted in FAA issuance of operations specifications to Kenya Airways, with their first flight to the U.S. occurring on October 28, 2018. Finally, the Service's technical assistance to Ghana through the Safe Skies for Africa (SSFA) program resulted in achievement of a Secretary of Transportation goal of establishing a new ICAO TRAINAIR Plus facility in that country.

In September, the Air Traffic Safety Oversight Service led an SSFA workshop on runway safety in Gaborone, Botswana. In addition, the Service worked through ICAO's North Atlantic Systems Planning Group to increase safety and reduce air traffic incidents in the world's busiest oceanic airspace and with the ICAO North America, Central American and Caribbean Office to share air navigation services oversight best practices with the region. These are great examples of our positive engagement at ICAO to enhance safety.

The Office of Accident Investigation and Prevention launched investigators overseas to assist with two air carrier accident investigations involving U.S.-designed aircraft, and supported eight other foreign investigations with research and component exams. The Office also coordinated the closure of seventeen FAA recommendations submitted by foreign Civil Aviation Authorities and continued to promote the benefits of aviation safety data analysis and sharing – as well as government and industry collaboration – through ICAO Regional Aviation Safety Groups and other forums.

All of our AVS Fiscal Year 2018 international activities demonstrate that – as aviation activities continue to expand throughout the world – AVS will continue to seek out opportunities for collaboration with global partners to enhance the safety of our worldwide aviation system.

Director, AVS International Strategies

Tricia Stacey

The FAA updated risk-based bilateral agreements with Brazil, Canada, China and Singapore, making it easier to approve each country's aircraft and aviation products for their growing aviation markets.

We continued to advance international aircraft certification with Revision 6 of the FAA/EASA Technical Implementation Procedures and a new amendment to the U.S./E.U. Safety Agreement through the signing of the Bilateral Oversight Board Decision 8. Both enhance our risk-based approach by optimizing reliance on each authority's expertise.

What Gets Me Up in the Morning

Tommy Devereaux

Program Manager AOV

Describe how/when you first got interested in aviation? What was the spark?

My Grandfather bought my brother and me a balsa wood airplane when I was six years old. I was so fascinated with how it flew through the air, I went out and bought three more. At the time, they cost five cents without the red propeller and 10 cents with the propeller. I would take the propellers and glue them on one plane to make a super-fast prop job. It would only fly for a few seconds but that only spurred my fascination. I modified my Batman helicopter by taping the electric motors from the racecars that came with my racecar track to the rotors of the helo. I did things like that throughout my childhood. Every Christmas I would always ask for and receive some type of airplane. I knew when I was 12 years old that I would go into the Air Force and have some type of affiliation with aircraft. I talked my parents into signing the contract that allowed me to go into the Air Force when I was 17 years old.

What program/project are you working on that will make aviation even safer in the future?

My Branch in the Air Traffic Safety Oversight Service (AOV-250) is engaged in building a program through training, education and philosophy pertaining to risk based decision making. We are focusing on ways to reduce drift from requirements that causes anomalies to occur. We are in the early stages of developing the AOV Tech Ops Surveillance Program that will determine gaps, best practices, compliance, follow-thru, process/procedural variations and accountability.

We're moving toward a OneAVS approach to doing business. Do you see that shift occurring in your program? What hurdles are in the way?

The OneAVS approach is a concept that should grow into a one FAA approach. We are all good at working in our "silos of excellence." It is past time to work outside of those silos through open minds/communications. How do you keep a safe system safe? One way is by knowing how the work that you do affects the "big picture". Yes, the OneAVS approach is taking affect within AOV. AOV-1/2 are insistent on more collaboration, transparency and trusting between AOV and all entities that we provide safety oversight. Hurdles are the lack of trust between organizations.

What "stretch" goal would you like to see FAA pursue to enhance aviation safety?

I believe the OneAVS is that "stretch" goal that the FAA should pursue as a whole.

What really gets you up in the morning to work at FAA (as opposed to "keep you up at night")

My team of Safety Oversight Inspectors is what keeps me going. It is a great group of professionals who show up every day, determined to do their absolute best to make a positive difference. They are innovative, energetic and always pushing to do the job to the best of their ability.

How AVS is Leading Change

Four years ago, AVS's Flight Standards Service (FS) and Aircraft Certification Service (AIR) looked at ways to increase their ability to lead and manage the dramatic changes being planned for their organizations. Subsequent research showed that by integrating the competency of Change Management into their mindset, skillset, and toolsets would greatly enhance people's ability to meet increasing internal and external pressures related to the changes coming their way.

Change Management is a formal discipline utilizing a structured approach to prepare, equip and support individuals to successfully adopt to change in order to drive organizational success and outcomes.

Since that initial review, newly established FS and AIR Change Management programs are continuing to mature, and have already successfully supported several major change efforts. Leading the effort for AVS, these programs have helped many of our people become proficient in, and expand Change Management skills into their everyday behaviors and practices.

One of the first projects to include Change Management was our new approach to Compliance oversight, which is part of the overarching guidance for implementing the FAA's strategic safety oversight approach. This Agency-wide initiative furthers the goal of safety by implementing new policy on how to work with a person or organization in noncompliance with a regulation, return them to compliance and prevent reoccurrence.

In applying the Change Management toolset, practitioners use measurements that gauge how well a new policy is being adopted, utilized, and evaluate the pace at which impacted groups are taking to become proficient in using the new policy guidance. Key assessments conducted on the draft Compliance guidance helped identify risk areas before implementation of the initial policy. We also implemented carefully designed communications plans with internal FAA and External stakeholders to create the right levels of awareness, desire and knowledge to make the policy succeed.

All of these Change Management steps were part of the Compliance project plan and have shown to be critical to the success of the program's launch.

2018 marked a big year for AVS Change Management. As the FS & AIR programs matured, they accomplished significant milestones.

- FS secured an AVS wide contract with Prosci®, a leading change management research organization, assuring training materials and project tools are available through 2021.
- AIR successfully used the Prosci® change management methedology to support the reorganization of its Enterprise Operations Division (AIR-900), eliminating legacy geographic barriers to standardization of AIR's technical and administrative support functions.
- FS worked with the Office of Human Resources Management (AHR) to include Change Management as a strategic goal for risk mitigation and the development of transformational leaders to support the AVS FY19 strategic business plan.
- FS worked with the Office of Quality, Integration and Executive Services (AQS) on new processes to provide a structured and sustainable method of implementing change. Some of these processes include: a unique 3-Tier Service model that provides an effective way of resourcing projects, maximizing resource effectiveness, documented guidance to support project teams in the integration of Change Management and Project Management methodologies and a discovery process that helps leaders and teams assess the size, scope, risks and resources needed for proposed projects and initiatives.

Having Change Management skills and behaviors in AVS's organizational competency will, I believe, have a positive impact on aviation safety. Through this approach to organizational improvement, we will realize better risk mitigation by taking steps to reduce adverse actions that often comes with organizational change, and to deliver increased benefits.

With both FS & AIR Change Management programs firmly in place and working together, our next step is to continue working with AQS on the integration of change management for the entire AVS organization in 2019.

AFB-510 Manager, Leadership Development Team

Aris Scarla

FS completed initial change management training for 4,500 employees across the Service.

Between FS and AIR, over 30 projects are incorporating the Change Management methodology and utilizing Change Management resources.

What Gets Me Up in the Morning

Jeff Guzzetti

Describe how/when you first got interested in aviation? What was the spark?

Ever since the 1960s, I have always had an inherent love for aviation, maybe because I grew up in the shadow of the Apollo space program. When I was a kid, I always looked up when I heard an airplane. It was, and still is, an all-consuming "affliction."

What program/project are you working on that will make aviation even safer in the future?

I am working on efforts to better "fuse" our "reactive" accident/incident investigation work into the "proactive" work of the other three divisions in AVP that analyze safety data, guide the agency's Safety Management Systems, and process FAA safety recommendations that come in from other AVS services and offices.

Also, I am assisting and encouraging the important effort to modernize the FAA's accident/incident data system so that it will be capable of meeting the future demands of the FAA's accident prevention strategies. This effort will integrate 21st century methods of investigation, technologies in the field and office environment, and advanced analytics with the use of mobile devices and other communication tools. These modernized capabilities will greatly improve the speed and fidelity of safety research.

We're moving toward a OneAVS approach to doing business. Do you see that shift occurring in your program? What hurdles are in the way?

Absolutely. The work in my division is already becoming the epitome of a "OneAVS" approach in many ways. We quickly share the data harvested from incident and accident investigations with all the other AVS services and offices so they can do their jobs and implement immediate safety actions. We are perfectly positioned to help accelerate the efforts of other offices such as an emergency airworthiness directive, a procedural change, or a new safety priority. Accident investigation is a team sport. My division is the coach, and the folks in the other AVS offices are the players.

What really gets you up in the morning to work at FAA (as opposed to "keep you up at night")

The work at FAA is super diverse and interesting, and it is a noble profession of preventing future accidents.

I am honored to lead and interact with the elite group of seasoned professionals who lead FAA investigations into the most significant aircraft accidents and incidents. The awesome staff of AVP-100 help make aviation safer by the direct actions of the FAA. Our office is a powerful and honest broker to facilitate safety improvements in aviation.

What "stretch" goal would you like to see FAA pursue to enhance aviation safety.

I am pushing efforts to create a dedicated cadre of FAA inspectors across the country that will be highly trained and dedicated accident/incident investigators. This will help standardize the way FAA collects and analyzes safety data while performing investigations.

Director,
FAA Accident Investigation Division

AVP

AVS's Investment in a Diverse, Talented Workforce

It is no secret why AVS has a well-deserved reputation as a world-class safety organization. Throughout our history, we have attracted talented, dedicated people who believe passionately in our safety mission. And five years ago, AVS took a major step in our commitment in broadening our talent base through the creation and implementation of a five year Diversity and Inclusion Work Plan, a first for FAA.

The idea behind the plan is simple. The aviation community is facing a wave of retirements with the aging of the baby boomers. Additionally, we are seeing stiff competition for the technically talented people coming out of our universities and vocational schools or finishing their military service commitments. We recognized the need to be at the forefront in drawing on the talents and perspectives that people of all backgrounds bring to the table.

We developed the Diversity and Inclusion Work Plan to address the specific and unique needs of AVS and the distinctive work environment that makes up the AVS organization. To make the plan a reality, in 2013 a cross-functional AVS Diversity and Inclusion Tiger Team led by Aircraft Certification Service Executive Director Dorenda Baker prepared a comprehensive strategic plan focusing on the following goals:

- Creating a quality talent pipeline by growing diverse networks through strategic partnerships
- Promoting policies and practices committed to workplace diversity
- Supporting employee coalition organizations focused on diversity and inclusion
- Reducing and eliminating barriers to achieving a diverse workplace.

There are now many mechanisms put in place to help achieve our goals, beginning with a robust, coordinated recruitment and outreach plan. This year, many of our employees helped us with a record number of 30 recruitment and outreach events targeting diverse audiences. At our appearance at the Organization of Black Aviation Professional's annual convention, for example, we made contact with over 300 potential candidates for AVS employment. We established an annual AVS Equal Employment Opportunity Training Week and incorporated Diversity and Inclusion training into the AVS onboarding process for new employees and managers. Over 3,000 managers and employees have received such training. We have worked to bolster engagement and collaboration with our employee coalitions; in September, AVS leader Ali Bahrami enjoyed meeting with over 100 employees participating in the Joint Training Conference organized by our many employee associations. Also in September, AVS took part in the FAA Workforce Summit, aimed at addressing the looming shortage of qualified pilots and aviation mechanics, and hosted our inaugural STEM Career Symposium. During the Symposium, Washington, D.C. area middle school and high school students engaged in hands-on aviation safety demonstrations and were encouraged to consider aviation careers. Our path forward will include an increased focus on outreach and education efforts with the next generation of aviation professionals.

One example of increased workforce diversity is AVS' success in hiring over 50 people with targeted disabilities since FY 2013.

The inclusion aspect of our plan is about making our diversity mix work better. To ensure fair treatment of all employees, our plan requires mangers to enter into good faith mediation if an employee requests mediation of a dispute, unless there is a management-approved justification for declining a mediation. We were the first FAA line of business to do so, and now many of our FAA cohorts have modeled dispute resolution mechanisms after ours. We also strive to provide reasonable accommodations for employees with disabilities, including broadened opportunities for teleworking. In Fiscal Year 2019 we will continue to work with our employee associates to identify professional development opportunities for employees from diverse backgrounds.

We are proud of what the Diversity and Inclusion Plan has accomplished in five years. Although we have a long way to go we are energized to keep working with all employees to make increased diversity and improved inclusion a hallmark of AVS's approach to enhancing aviation safety.

Sunny Lee-Fanning

Executive Director
Office Of Quality, Integration, and Executive Services

2,364 AVS managers and employees completed an Equal Employment Opportunity training course in FY 2018

In FY 2018, AVS conducted a record number of 30 recruitment and outreach events targeting diverse audiences.

Advancing Risk-Based Decision Making

To help raise the safety bar, Aviation Safety (AVS) continues to rely on risk-based approaches to certification and oversight, the leveraging of partnerships and identification and promotion of best practices. The following highlights from various AVS offices and services beyond those already noted on the essay pages illustrate AVS's emphasis on enhanced communications, collaboration and consistency in pursuit of our safety goals.

AEROSPACE MEDICINE

- FAA's first Federal Air Surgeon Oncology Summit featured dialogue between national cancer specialists and Office of Aerospace Medicine (AAM) medical officers who write the policy for airman medical certification. AAM is updating medical certification policy in response to dramatic changes in cancer treatments.
- AAM reviewed the medical certification applications of all airmen who applied for a FAA airman medical certificate. AAM authorized the issuance of 32,613 special issuance medical certificates thus far in 2018.
- AAM implemented a medical monitoring program making it possible for FAA air traffic controllers taking specific antidepressant medications to return to safety sensitive duties.
- AAM processed 2,131 Air Traffic Control Specialists, meeting the hiring goals of the Air Traffic Organization.

AIR TRAFFIC SAFETY OVERSIGHT SERVICE

- The Air Traffic Safety Oversight Service (AOV) advanced the transformative potential of Remote Towers by awarding a Control Tower Operator certificate to Leesburg Airport in Virginia in support of live testing and by testing similar technology in Fort Collins, Colorado.
- AOV enhanced trans-oceanic safety by chairing the International Safety Oversight Group for the North Atlantic Region, the world's busiest oceanic region and by providing safety oversight of Performance Based Communications and Surveillance and supporting efforts to reduce separation standards in the region.

OFFICE OF QUALITY, INTEGRATION AND EXECUTIVE SERVICES

- With AQS support, AVS developed a comprehensive AVS Strategy to align AVS with a unified vision and actionable, measurable strategic themes.
- AQS led the multi-year planning and coordination for the transition of AVS to the ISO 9001:2015, with the new standard focusing on quality and mission objectives, risk and opportunity and planning for change. Also, AVS achieved a 3-year certification for the ISO 9001:2015 standard. This is the first time AVS passed two comprehensive audits in one year.

AIRCRAFT CERTIFICATION

The Aircraft Certification Service (AIR) continued to improve implementation of the Organization Designation Authority (ODA) scorecard, with the documentation of key recommendations for improving ODA system performance that incorporated the scorecard year-to-year trends and measures of effectiveness.

AIR is implementing a consistent application of the 3rd edition of the FAA and Industry Guide to Product Certification (Certification Process Guide) to improve the effectiveness and efficiency of the product certification process by establishing up-front the clear understanding of the needs and expectations of both parties.

RULEMAKING

Recognizing there is no "one-size-fits-all" approach to rulemaking, the Office of Rulemaking (ARM) revised the rulemaking governance and prioritization process to provide the flexibility needed to respond efficiently to an evolving changing rulemaking environment. This process:

- incorporates a strategic component to the current rulemaking prioritization process;
- establishes a schema that is flexible and scalable to the complexity and priority of the rulemaking project; and
- enhances stakeholder engagement.

The 61/91 "Aviation Training Devices" rule, will:

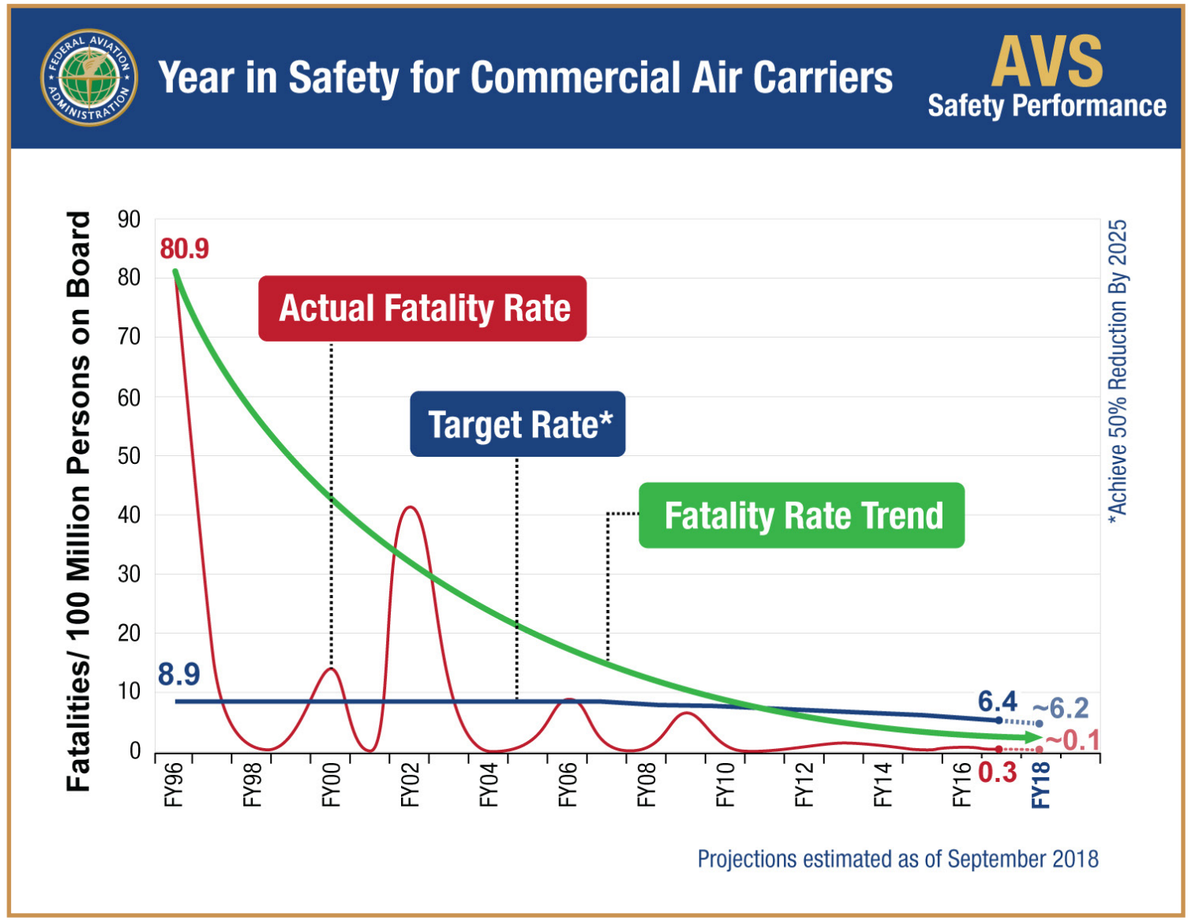
- relieve burdens on pilots seeking to obtain aeronautical experience, training, and certification by increasing the allowed use of aviation training devices.
- Address changing technologies by accommodating the use of technically advanced airplanes in commercial pilot training and testing.
- broaden opportunities for military instructor pilots or pilot examiners to obtain civilian ratings based on military experience; and
- expand opportunities for logging pilot time, and remove a burden from sport pilot instructors by permitting them to serve as safety pilots.

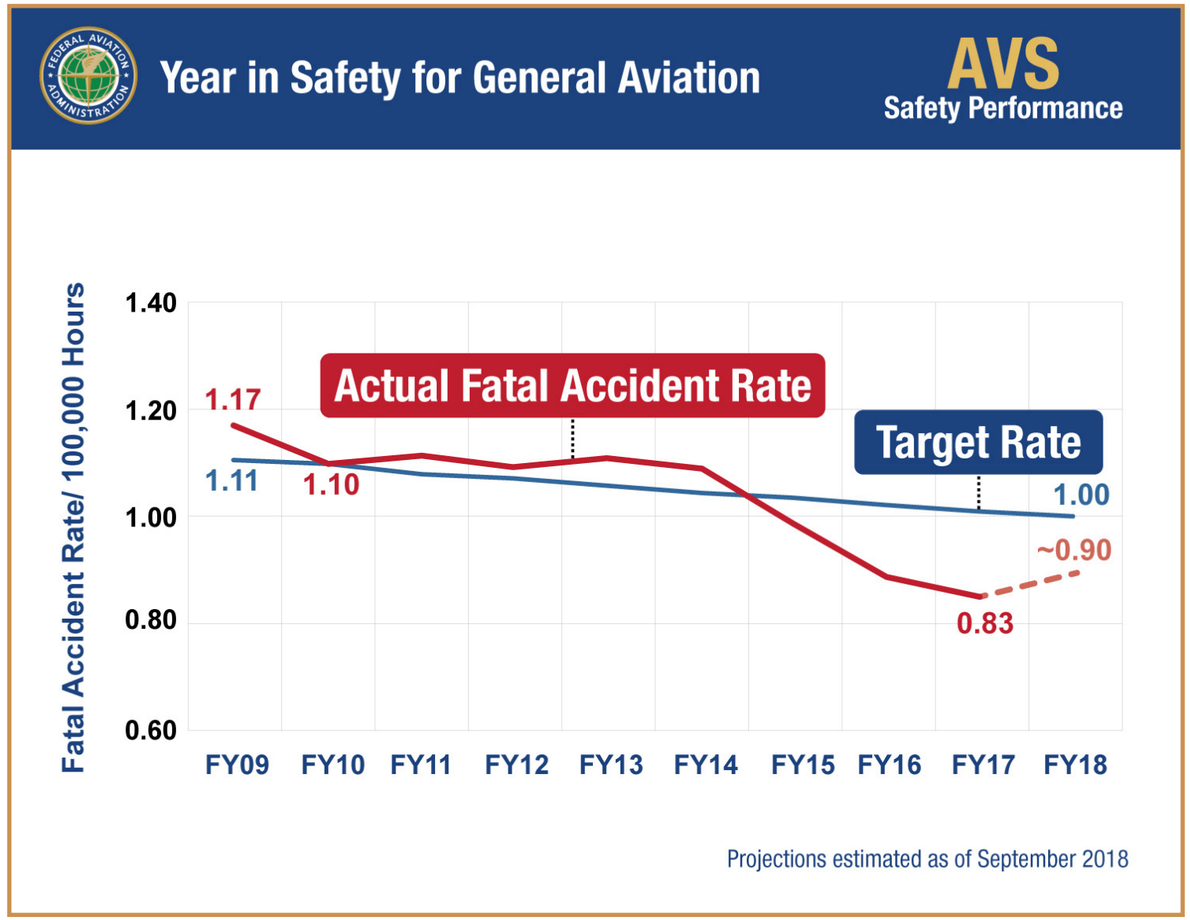
The "Rotorcraft Pilot Compartment View" rule allows ground tests to demonstrate compliance for night operations, thus relieving the burden of performing a night flight test under certain conditions, with an annualized cost savings of about $39.5 million.

Continued Progress Toward Safer Skies

We continue to reduce the general aviation fatal accident rate and the commercial air carrier fatality rate through a team effort that reaches across the FAA and other government organizations, as well as aircraft manufacturers, air carriers, aviation and aerospace associations, pilots and flight crews, repair station professionals, flight instructors, drone operators, foreign aviation partners and academia.

These charts demonstrate the FAA's progress in Fiscal Year 2018 toward reducing commercial air carrier fatalities per 100 million persons on board by 50 percent over the period 2008-2025. We also met our target to reduce the general aviation fatal accident rate to no more than one fatal accident per 100,000 flight hours by 2018.





WE ARE AVIATION SAFETY