AOV Credentialing and Control Tower Operator Programs
FY20 YEAR IN REVIEW

Contents

Introduction

As I pause and reflect on everything that happened this past year and all that we've learned, I have incredible respect and appreciation for our team and our progress in FY20. Despite the challenges posed by the national and global COVID-19 public health emergency, we continued to manage the AOV Credentialing and Control Tower Operator Certificate Programs, and provide seamless policy-related support in evaluating the impact of proposed changes in air traffic procedures, equipment, and technologies. This report captures the Credentialing Team's incredible FY20 accomplishments and ties them to our strategy, *AOV 2025*, demonstrating how we are moving forward in our collaborative approach to a risk-based, data-driven safety oversight model.

The pandemic introduced significant, new challenges to our work environment. We had to make tough decisions about how to continue our core operations while moving employees home. Throughout this time, our team's commitment to safety oversight and our stakeholders remained steadfast. And while the situation was disruptive, it quickly revealed opportunities for innovation.

Our ability to agilely adapt was key to success in FY20. For example, in response to the COVID-19 pandemic, the Credentialing Team quickly developed an inclusive, expedited exemption approval strategy to extend expiring medical certificates and Biennial Skills Evaluations and developed virtual means to provide oversight for the administration of Airmen written exams. These responsive, innovative efforts provided relief to hundreds of controllers and technicians, allowing them to continue providing critical safety services.

As we look forward to FY21 and the many projects that lie ahead, I'm encouraged by the collaborative relationships we built and the triumphs we experienced as a result of them during this challenging year. Thanks to all of our stakeholders across AOV as well as throughout AVS and the FAA. Many of the achievements in this report are a direct result of your collaboration, support, and commitment.

Donald P. Colbert

Don Colbert
Aviation Safety
Air Traffic Safety Oversight Service
Operations Support Manager, AOV-240

FY20 Accomplishments Overview

This table provides a high-level overview of Air Traffic Safety Oversight Service (AOV) Operations Support Branch's (AOV-240) FY20 accomplishments. It aligns AOV-240's work with our strategy, *AOV 2025*, and illustrates how these efforts support the Aviation Safety (AVS) Strategic Plan. Hyperlinks in the table point to additional information.

AVS Strategic Goal	AOV Activity (AOV 2025)	AOV-240 FY20 Accomplishment
Safety	AOV Activity 1 - Improve relationships within AVS and the FAA to make the role and responsibilities of AOV known and to support a total system safety approach to AOV oversight of ANSPs.	Medical exemptions
		ICAO Annex 1 Review
Infrastructure	AOV Activity 2 – Develop surveillance processes beyond audits and assessments to inform AOV on the safety performance of ATO operations.	External Compliance Verifications (ECVs)
		Credentialing Team Internal Review of CTO Requirements
Innovation	AOV Activity 1 - Improve data-sharing across the ATO and AVS.	BSE waivers
		Enhanced Oversight
		FAA Order JO 8000.97, *Technical Operations Credentialing Program*
		Federal Contract Tower Control Tower Operator (CTO) Workgroup
		System Support Center (SSC) Address List

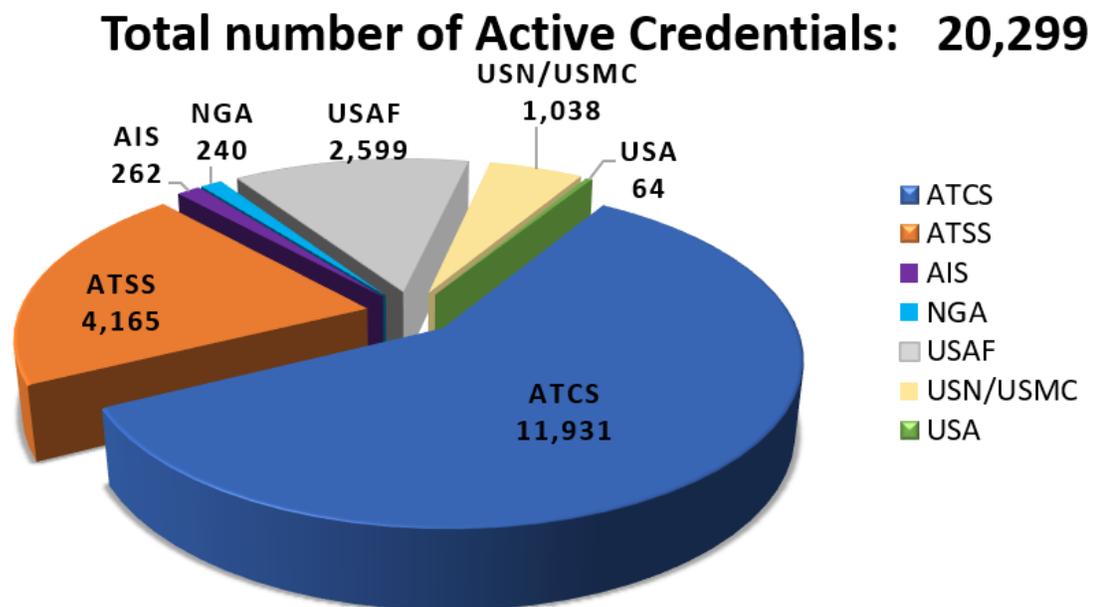|	AOV Activity 3 – Explore AOV integration points in the FAA, beyond those established in the regional offices, to enable a collaborative approach in all areas which AOV is assigned oversight responsibilities.	Credentialing Team Internal Review of CTO Requirements
Accountability		AIS Credentialing
		CTO-E Waivers
		Credentialing System Upgrades
		ATO Reorganization
		Periodic Designated Examiner and Proficiency Manager Credential Training
		United States Air Force (USAF), United States Navy (USN), and United States Marine Corps (USMC) Credentialing
		United States Army (USA)
		CTO Airmen Written Test
		CTO Airmen Written Test Work Instruction and CTO Process Team Lead Job Aid
		FAA Order 8000.90C
		Policy Memorandum for Credential Holders with a Tower Rating for Initial Issuance of a CTO Certificate
	AOV Activity 2 – Continue modernization of training technology and align the training developed with the updated capabilities and competencies required of the workforce.	Credentialing Team Summit
		PM/DE Training Courses

Purpose

This document summarizes the accomplishments of AOV-240 and highlights its role and contributions to the overall AOV mission in FY20. It also functions as a roadmap for AOV-240's future goals.

AOV Mission

AOV's mission is to provide independent, risk-based, data-driven safety oversight of air navigation services. AOV-240 supports this mission by managing the AOV Credentialing and Control Tower Operator Certificate Programs.

Total number of Active Credentials: 20,299

AIS 262 · NGA 240 · USAF 2,599 · USN/USMC 1,038 · USA 64 · ATSS 4,165 · ATCS 11,931

Legend: ATCS, ATSS, AIS, NGA, USAF, USN/USMC, USA

AOV Vision

To be the global leader in safety oversight of air navigation services.

AOV Values

Safety, Excellence, Integrity, People, and Innovation

Governing Documents

- *AOV 2025* is a foundational document which describes AOV's collaborative approach to provide independent, risk-based, data-driven safety oversight of air navigation services.
- The AOV FY20 Business Plan outlines the major strategic and tactical initiatives that will help AOV achieve its mission.
- The International Civil Aviation Organization (ICAO) has established international standards for the licensing of aviation personnel, including air traffic controllers. These Standards and Recommended Practices are contained in Annex 1, *Personnel Licensing*, to the Convention on International Civil Aviation.
- FAA Order 1100.161, *Air Traffic Safety Oversight*, gave AOV the responsibility to establish and implement a Credentialing Program to issue, amend, and remove credentials of ATO safety personnel, examiners, and others, as appropriate. AOV's Credentialing Program meets FAA Order 1100.161 requirements through the issuance, amendment, and removal of ATO Safety Personnel and examiner credentials. AOV also manages the CTO Certificate Program and provides acceptance of changes to personnel certification requirements in accordance with ATO policy.
- FAA Order 8000.90, *Air Traffic Safety Oversight Credentialing and Control Tower Operator Certification Programs*, includes Credentialing procedures for ATO personnel, including Air Traffic Control Specialists (ATCS) and Airway Transportation System Specialists (ATSS), who provide air traffic control services or certify systems, subsystems, or services in the National Airspace System (NAS). The Credentialing Program ensures that those performing direct safety-related services maintain required skills to perform safety functions.
- 14 Code of Federal Regulations Part 65 contains requirements for CTO certificates.
- FAA Order 7220.1, *Certification and Rating Procedures for Department of Defense (DoD) Personnel*, specifies procedures for the certification and rating of DoD air traffic controllers operating in the NAS.

The graphic below depicts the strategic goals shared by the DOT, FAA, and AVS. AOV-240's FY20 accomplishments are aligned with those strategic goals, strategic themes, and foundational initiatives to ensure our efforts support AOV's vision and the "One AVS" approach to aviation safety.
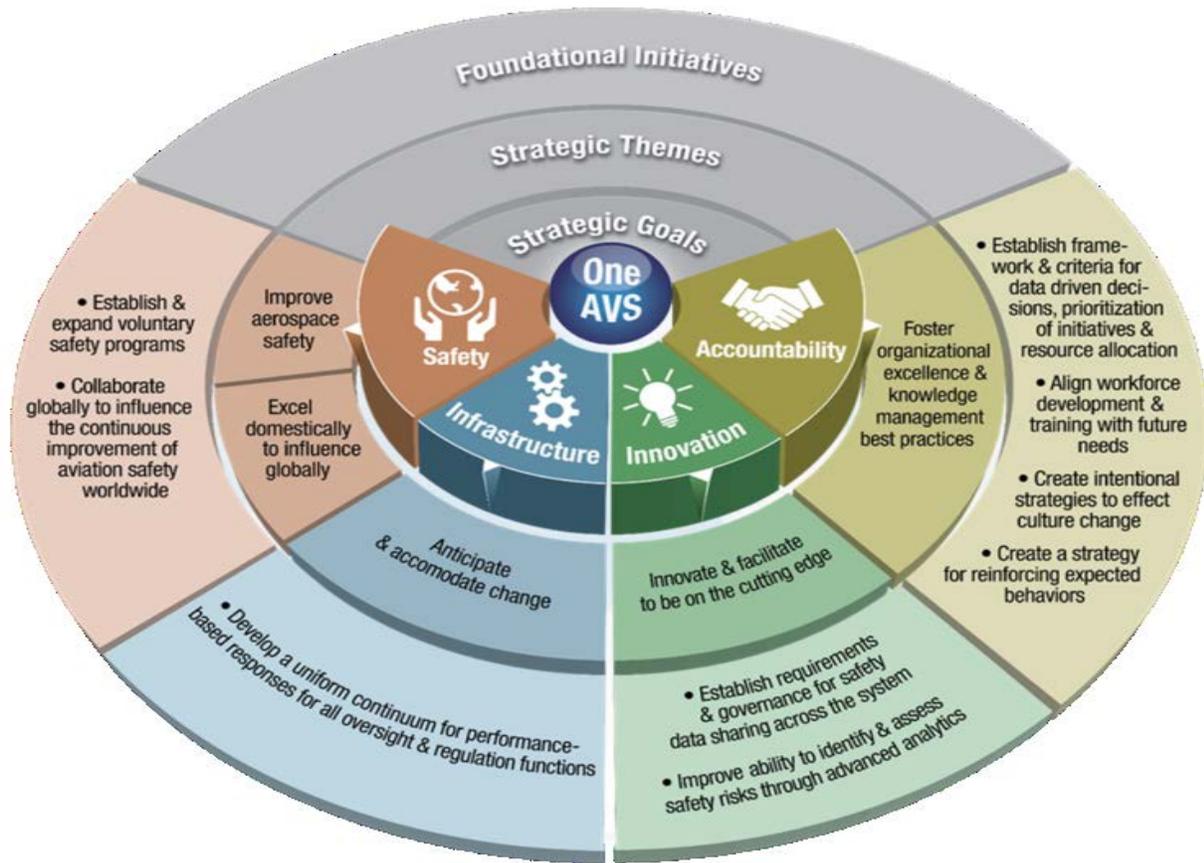
Strategic Goal: Safety

Reduce airspace-related fatalities and serious injuries.

AVS Strategic Theme: Improve aerospace safety
AVS Foundational Initiative: Establish and expand voluntary safety programs
AOV Desired Outcome: A culture of collaboration and mutual respect between ATO and AOV at all organizational levels. This culture collaborates proactively to identify and resolve safety issues by sharing safety data, sharing of the products of the ATO SMS, and routinely reviewing system safety performance.

AOV Activities:
1. Collaboratively develop agreed upon safety metrics with ATO to measure safety performance of the ATO.
2. Participate in management activities supporting the ATO SMS to improve awareness of identified safety hazards and mitigations in ATO operations.
3. Identify and obtain key products of the ATO SMS for data sharing across AVS to enable the sharing of best practices and identifying potential barriers in resolving safety issues, and promote innovation in safety reporting.
4. Promote innovative forums for collaboration on recognized or emerging safety issues using AVS and ATO safety data.

Strategic Theme: Excel domestically to lead globally
AVS Foundational Initiative: Collaborate globally to influence the continuous improvement of aviation safety worldwide
AOV Desired Outcome: AOV has established collaborative partnerships within the FAA, ICAO, the National Transportation Safety Board (NTSB), and key Civil Aviation Authorities (CAA) to support collaboration on areas which support the State Safety Program (SSP) and improve safety oversight of ANSPs.

AOV Activities:
1. Improve relationships within AVS and the FAA to make the role and responsibilities of AOV known and to support a total system safety approach to AOV oversight of ANSPs.
2. Establish collaborative forums with safety organizations focused on aviation safety such as ICAO, the NTSB, and others.
3. Maintain or establish collaborative forums with selected CAAs to collaborate on safety oversight processes, safety issues, and areas which support the SSP and the oversight of ANSPs.

AOV-240 **Safety** Accomplishments:

Medical exemptions
The unprecedented pandemic during FY20 posed a significant challenge: How could AOV continue to provide safety oversight while closely following COVID-19 guidance to keep everyone involved safe and healthy? The Credentialing Team collaborated with several organizations, including the ATO, to develop a strategy to manage expiring medical certifications. The ad-hoc team identified hazards, mitigations, and barriers to the current requirements, crafted relief language, and monitored implementation for air traffic controllers who were not employed by the FAA or on active duty with DOD. This resulted in a risk-managed means for more than 300 Air Traffic Control Specialists to safely continue providing service within the NAS during a national emergency.

ICAO Annex 1 Review
The Credentialing Team supported global collaboration by partnering with AOV's International Integration Staff (AOV-30) to review Amendment 176 to ICAO Annex 1, which resulted from recommendations developed by the ICAO Competency-Based Training and Assessment Task Force and the Secretariat. This provided an opportunity to validate internal processes, update external policies as needed, and submit 'differences' to ICAO. These effort ensured compliance with the amendment, which was key to demonstrating the FAA's commitment to international licensing standards, and contributed to the continuous improvement of aviation safety worldwide.

Strategic Goal: **Infrastructure**

Invest in infrastructure to ensure safety, mobility and accessibility and to stimulate economic growth, productivity and competitiveness for American workers and businesses.

AVS Strategic Theme: Anticipate and accommodate change
AVS Foundational Initiative: Develop a uniform continuum for performance-based responses for all oversight and regulation functions
AOV Desired Result: An internal Safety Oversight Prioritization Processes which aligns AOV surveillance activities with the highest level of risk in Air Traffic Operations based on the AVS safety continuum.

AOV Activities:
1. Develop a repeatable process to prioritize AOV surveillance activities based on risk to the NAS consistent with the AVS safety continuum.
2. Develop surveillance processes beyond audits and assessments to inform AOV on the safety performance of ATO operations and the management of the ATO SMS.
3. Monitor emerging technologies and focus oversight activities on these technologies as needed.
4. Develop a means within AVS to monitor ANS in the NAS to promote proactive identification of safety issues with the goal of preventing mishaps.
5. Develop a risk-based, data-driven model for the oversight of Aeronautical Information Services.

6. Using the example set by the Commercial Aviation Safety Team, define an innovation lab concept for future use by stakeholders to help resolve or mitigate identified safety risk in the NAS.

AOV-240 **Infrastructure** Accomplishments:

External Compliance Verifications

AOV continued working with ATO's Quality Control Group (QCG) to validate Credentialing information when External Compliance Verifications (ECVs) are conducted. This continued the work of three Credentialing audits, validating that personnel are credentialed in accordance with FAA Order 8000.90. In FY20, this initiative facilitated the identification and resolution of compliance issues at the lowest possible level. For example:

- Reviewed 12 facilities' credentials in association with the ATO's ECVs
- Reviewed 984 credentials
- Identified five controllers working without an active credential rating and appropriately and quickly resolved the issue
- Conducted random monitoring on 11 facilities
    - During the monitoring, the Eastern Service Areas point of contact reviewed 524 credentials, identifying 11 controllers working without a valid rating. The Eastern QCG Office contacted the facilities and assisted in resolving all of the invalid ratings.
- Reviewed 23 facilities in total
- Reviewed 1,508 credentials in total
- Corrected 16 invalid ratings

Due to the success of the ECV verification monitoring in the Eastern Service Area, the Credentialing Team began expanding this best practice in the Western Service Area. Once fully implemented there, monitoring will be conducted in the Central Service Area.

Internal Review of CTO Requirements

To identify risks and gaps in the management of the CTO Certificate Program, the Credentialing Team initiated an effort to ensure internal compliance with governing directives. Additionally, this review assessed AOV-240 processes for compliance with ICAO, FAA, and AOV requirements, ensuring only qualified personnel are authorized to perform direct safety-related air traffic control services in the NAS. Team members developed and completed checklists to document evidence of compliance and the status of management control effectiveness. The review found no evidence of noncompliance with requirements; however, it highlighted opportunities for future projects to ensure continued success of the AOV CTO Certificate Program.

Strategic Goal: Innovation

Lead in the development and deployment of innovative practices and technologies that improve the safety and performance of the nation's Air Transportation System.

AVS Strategic Theme: Innovate and facilitate to be on the cutting edge
AVS Foundational Initiative: Establish requirements and governance for safety data sharing across the enterprise
AOV Desired Result: Systems, processes, and a culture that enables AOV to make data-driven decisions regarding oversight efforts and activities.

AOV Activities:
1. Improve data-sharing across the ATO and AVS.
2. In support of AVS efforts to improve aerospace safety, develop Air Navigation Service (ANS) risk profiles.
3. Outline the AOV oversight procedures for conducting ANS based on these risk profiles.

AVS Foundational Initiative: Improve the ability to identify and assess safety hazards and risks through advanced analytics
AOV Desired Result: A suite of tools and applications that delivers data analytic capabilities with user interfaces for visualization to continually inform AOV surveillance operations.

AOV Activities:
1. Deliver a suite of data analytics capabilities with a user interface for visualization that includes surveillance of both Technical Operations and Air Traffic Services. Use these tools to inform the oversight prioritization process
2. Deploy the AOV Safety Oversight and Risk Assessment tool.
3. Deploy the AOV Safety Oversight Management System tool.
4. Deploy an Oversight Mapping Tool.
5. Work with the Office of Accident Investigation and Prevention (AVP) on the development of Safety Data Analysis Team concepts.
6. Leverage Research, Engineering, and Development activities for future tools and applications.

AOV-240 Innovation Accomplishments:

Biennial Skills Evaluation waivers

The COVID-19 pandemic's impact on air traffic personnel significantly reduced the ATO's ability to conduct Biennial Skills Evaluations (BSEs). Similar to the difficulties with medical certifications, the pandemic threatened to sideline controllers and technicians essential to maintaining safety in the NAS. The Credentialing Team overcame these challenges by formulating a strategy consisting of policies and relief language assuring coverage to more than 6,000 controllers. Additionally, the team maintained integrity of the Credentialing Program by creating a method to enhance oversight by manually tracking the rating expiration of those controllers impacted by the BSE waiver. This enabled the team to track extended BSE waivers and share data with ATO about a potential "bow wave" effect when waivered controllers and non-waivered controllers eventually need a BSE during the same month. Finally, AOV posted all COVID-19 information in the Credentialing system and other sites to maximize transparency and collaborated closely with facility managers to ensure a smooth implementation.

Enhanced Oversight

During the COVID-19 pandemic, the AOV Credentialing Team enhanced oversight of the Credentialing Program with a series of innovative surveillance methodologies designed to fill the gap left by the ATO's suspension of ECV activities combined with AOV's corresponding suspension of on-site surveillance activities. AOV coordinated with the Credentialing Program software contractor to provide data reports of all credential holders in the credentialing system. By analyzing these complete data reports, non-compliant items were identified and resolved at the lowest possible level. AOV is monitoring and manually tracking:

- Ratings due to expire more than two years out
- Designated Examiners who do not possess any ratings
- Credential holders who hold current ratings but whose credential does not reflect their home facility
- Ratings with erroneous expiration dates

FAA Order JO 8000.97, *Technical Operations Credentialing Program*

Differences between FAA Order 8000.90 and FAA Order 8000.97 created confusion in both AOV and the ATO, especially in the following areas: Credential holder roles, responsibilities, terms related to Air Traffic operations, issuance of ratings, and expiration of ratings. Technical Operations (AJW) drafted an update of FAA Order 8000.97 to resolve the confusion and distributed the document for review and comment. Safety and Technical Training (AJI) non-concurred with the Order re-write, due to inconsistencies with the Credentialing Program. The Credentialing Program Manager in AJW was tasked to take another look at the Order and address the comments, and invited AOV to participate in the effort. This collaboration enhanced data sharing between AOV and ATO.

FAA Contract Tower (FCT) CTO Workgroup

The dynamic nature of FY20 led the Credentialing Team to look for areas where innovative practices could increase efficiency while improving performance in safety oversight.

The Credentialing Team worked with ATO and FCT vendor personnel to discuss requirements, possible alternatives, and certification needs of the FAA Contract Tower Program. The Credentialing Team also participated in a conceptual test to evaluate if performing virtual certifications was possible while maintaining the integrity of on-site certifications in accordance with the Code of Federal Regulations and existing guidance. Ultimately, AOV-240 applied risk-based criteria to several ideas, and elected to pursue actions to allow FCT personnel to have a CTO Examiner designation.

System Support Center (SSC) Address List

The realignment of air traffic facilities over the past several years resulted in numerous credential cards being returned to AOV, marked as "unknown address" or "return to sender." The returns not only negatively affected credential holders, but also created additional workload and expenses for AOV. In order to address the problem, the Credentialing Team collaborated with the ATO Service Area QCG to share address and location ID information. The team used this information to verify all addresses in the Credentialing system, making over 400 updates. They institutionalized this progress by developing and implementing an internal process to keep addresses current.

Strategic Goal: Accountability

Serve the nation with reduced regulatory burden and greater efficiency, effectiveness and accountability.

AVS Strategic Theme: Foster organizational excellence and knowledge management practices.

AVS Foundational Initiative: Establish a framework and criteria for data-driven decisions, prioritization of initiatives, and resource allocation.

AOV Desired Result: Improved organizational efficiency and effectiveness by describing ANSP oversight requirements in the FAA Order 1100.161, *Air Traffic Safety Oversight Service* to promote regulatory transparency and a clear understanding of AOV's roles and responsibilities.

AOV Activities:

1. Conduct a review of State (SSP), International, (ICAO) and internal FAA requirements for oversight of ANSPs.
2. Based on these requirements, if needed, revise FAA Order 1100.161 to include strategic direction and change and gain Administrator approval of these revisions.
3. Explore AOV integration points in the FAA, beyond those established in the regional offices, to enable a collaborative approach in all areas which AOV is assigned oversight responsibilities.

4. Conduct a review of ICAO standards and recommended practices to determine oversight requirements to ensure the delivery of high quality aeronautical information system products.

AVS Foundational Initiative: Align workforce development and training with the skill sets needed to effectively operate in a risked based, data-driven, and collaborative oversight role.

AOV Desired Result: A trained workforce able to effectively operate in a collaborative environment to accomplish oversight responsibilities in the NAS.

AOV Activities:

1. Develop a competency model to support workforce recruitment and training development.
2. Continue modernization of training technology and align the training developed with the updated capabilities and competencies required of the workforce.
3. Provide recurrent training at a reliable rate to maintain workforce proficiency and competencies.
4. Develop more web-based and blended learning/training opportunities to enable employee improvement through self-study.
5. Identify and synchronize with training on safety oversight and safety management with organizations beyond the FAA, such as ICAO.

AVS Foundational Initiative: Create intentional strategies to effect culture change.

AOV Desired Result: AOV culture promotes safety across the NAS. This environment is collaborative, ubiquitously shares information, and supportive of those efforts identified as important to providing safety oversight of the ANSPs operating in the NAS. All AOV employees are exposed to a unified interpretation of organizational purpose and mission, and an understanding of the processes to accomplish the mission.

AOV Activities:
1. Socialize vision for collaborative oversight via direct communication with staff.
2. Utilize a change management plan to successfully expand AOV surveillance activities to operate in a collaborative model.

AVS Foundational Initiative: Create a strategy for reinforcing expected behaviors.

AOV Desired Result: A management team which leads in a manner which promotes a collaborative environment and a healthy safety culture. This safety culture is one where every employee; sees and values their role in accomplishing the AOV mission and "doing safety," feels comfortable raising safety concerns through the established means and forums, and feels empowered to resolve safety issues at the lowest possible level to improve safety across the NAS. This AOV culture; assumes positive intent and sets the tone, collaborates and builds connections, promotes opportunity, is transparent, acknowledges success, recognizes outstanding performers, and continually seeks to improve.

AOV Activities:
1. Empower staff by ensuring leaders provide strategic direction and high-level transparent objectives through the business planning process.
2. Foster mobility in the workforce by allowing employees to pursue roles on projects or teams that broaden and develop their skill set and knowledge of operations throughout the NAS.
3. Encourage staff to develop skills and collaborative partnerships by working in or with different AVS Services and Offices in a collaborative means.

AOV-240 **Accountability** Accomplishments:

Aeronautical Information Specialist (AIS) Credentialing

Using a collaborative approach in an area where AOV has oversight responsibilities, the Credentialing Team worked closely with Aeronautical Information Standards (AOV-110) and Aeronautical Information Services (AJV-A) to establish a Credentialing Program for FAA AIS. Working together, the team developed an AIS Credentialing Standard Operating Procedure (SOP) to comply with the requirements contained in FAA Order 8000.90. The team also drafted a new section in FAA Order 8000.90, which incorporates aeronautical information specialists into the FAA's Credentialing Program. These efforts resulted in the recent issuance of the first FAA Credentials recognizing FAA AIS. The Credentialing Team:

- In partnership with AOV-110, conducted due diligence for the Instrument Procedure Design Group on March 10 –12, 2020 at AJV-A's offices in Oklahoma City, OK. This was the first due diligence in a series to be performed on credentialing AJV-A's remaining aeronautical information specialists.
- In partnership with AOV-110, conducted virtual due diligence for the Aeronautical Data and Aeronautical Charting Groups on July 20-31.
- Issued 70 Credentials on May 30, 2020 to the Information Flight Procedures Group.
- Issued 188 Credentials on September 17, 2020 to the Aeronautical Data and Aeronautical Charting Groups.
- Developed AIS Proficiency Manager/Designated Examiner Credentialing System User Guide.

CTO Examiner (CTO-E) Waivers

Prior to being updated, FAA Order 8000.90 stated that in order to be a CTO-E, an examiner must have held a CTO certificate. The CTO certificate is a legacy program, and the FAA stopped issuing CTOs to FAA employees in 2015. AOV is the waiver authority to allow personnel who hold a Credential with required designations, but who have never held a CTO, to perform duties as a CTO-E. In FY19-FY20, AOV issued 10 waivers to FAA Order 8000.90, allowing those CTO-Es to have only held a Credential. These waivers are no longer necessary due to the update to FAA Order 8000.90, and they were closed in FY20.

Credentialing System Upgrades.

The Credentialing system was moved into the Amazon Web Service (AWS) Cloud environment on July 23rd, 2019. The credentialing team worked throughout the year to mitigate errors caused by the transition through collaboration with stakeholders to release more than 15 Credentialing system updates. These updates resolved the

complications brought on by the move to the cloud environment and improved system performance and functionality. These updates included:

- Adding a redirect link to the new credentialing website
- Enhancing load speed for Content Management and Training and Documentation pages
- Fixing the load issue on the quick reference sheets (QRS) page and the broadcast email issue
- Correcting many of the credentialing designation issues
- Adding the District designation
- Correcting the CSV page, profile duplication errors, and profile page viewing issue
- Improving the search function
- Deploying AIS and resolving related issues

ATO Reorganization Support

The ATO underwent a district reorganization in early 2020. In preparation for this, the Credentialing Team proactively developed a robust conversion plan, tested it repeatedly, and validated information and alignment for over 16,000 credential holders. The Credentialing Team's successful updates to the system proved a significant factor in the seamless realignment of the ATO district structure consisting of the reorganization of 22 total districts (to 4 new districts) and over 300 air traffic facilities.

Periodic Designated Examiner and Proficiency Manager Credential Training

Credentialing Team points of contact typically field similar questions as personnel become Designated Examiners and Proficiency Managers. In order to help facilities and cut down on routine errors, the Credential Team crafted a solution that could be easily implemented and reinforce expected behaviors without overburdening facility managers. This solution was periodic, bite-size credentialing modules issued via e-mail that consisted of a few pictures or a short paragraph. This training was designed to be highly informative and address a relevant issue while taking less than one minute of a manager's time. The idea was widely embraced by the ATO and has saved resources by reducing person-to-person problem-solving interactions necessary to address simple profile errors and expired ratings.

United States Air Force, United States Navy, and United States Marine Corps Credentialing

In 2015, AOV began working with the DoD to bring each service branch into the Credentialing system. The integration started with beta testing with the USAF in 2016, and followed with the Navy and Marine Corps one year later. All branches found the Credentialing system to be user friendly and the Credentialing Team to be responsive to requests for modifications. Within approximately two years all three services had fully implemented the Credentialing Program at all of their bases worldwide. Their

programs are now in the sustainment stage, which includes close coordination with the Credentialing Team for updates, training, and any other challenges. This year, the Credentialing Team travelled to Oklahoma City to meet with the Air Force Flight Standards Agency on several occasions. During these visits they met with new staff members, provided in-depth training, and answered DoD-related questions. They also demonstrated how AOV-240 provides oversight of the Credentialing Program to the ATO and discussed opportunities for future collaboration with DoD personnel. The Credentialing Team also met with Navy and Marine Corps leaders to discuss the Credentialing Program.

United States Army
The United States Army remains in a beta test for the Credentialing Program because of several unique elements of Army Air Traffic Control. For example, most Army controllers rotate through Tactical Air Traffic Control Facilities, spending from a few weeks to a few months directing military and military-contracted aircraft in sterilized airspace. This varies from the traditional Credentialing system model, which is designed for a fixed home facility where the controller is familiar with all operations and airspace related to that facility. The Credentialing Team continues to collaborate with Army stakeholders on a path that will meet their mission objectives while maintaining the integrity of the current Credentialing Program construct.

CTO Airmen Written Test
As part of the oversight of the CTO Certificate Program, the Credentialing Team discovered that the Airmen's Written Test had not been revised in approximately five years. During that time, almost every regulation in the study guide had changed at least once, and a review of over 600 test questions revealed more than 80 were outdated. After discussions between AOV and the FAA Academy, administration of the Airmen Written Test was consolidated under AOV-240. Under this arrangement, updating the Airmen Written Test and associated Study Guide content remained the responsibility of ATO (AJI), in collaboration with AOV.

CTO Airmen Written Test Work Instruction and CTO Process Team Lead Job Aid
Having taken on additional CTO training responsibilities, the Credentialing Team conducted a review for gaps and areas for improvement. The review revealed the program would be improved with additional guidance, leading the team to develop a CTO Airmen Written Test Work Instruction and CTO Process Team Lead (PTL) Job Aid. The team created a Work Instruction outlining AOV's responsibilities for conducting the CTO Certificate Program activities in accordance with the AOV Surveillance Process, AOV-002-001. Additionally, the Job Aid was created to help CTO PTLs understand their responsibilities and carry out the tasks in the Processing the Control Tower Operator Airmen Written Test Work Instruction.

FAA Order 8000.90C
FAA Order 8000.90C, *Air Traffic Safety Oversight Credentialing and Control Tower Operator Certification Programs*, prescribes instructions, standards, and guidance for issuing and maintaining Credentials and Control Tower Operator Certificates. Although

the Credentialing Team made targeted changes to the Order, it had not been updated as a whole in several years. In response to changes in processes and policies, questions from stakeholders, and ad-hoc additions of clarifying language, the Credentialing Team updated FAA Order 8000.90. The changes promoted regulatory transparency and a clear understanding of AOV's and ATO's roles and responsibilities and included:

- Updating formatting throughout the document
- Making editorial changes
- Updating addresses and reference documents
- Adding clarifying language in response to stakeholder feedback
- Updating CTO information to reflect current policies and agreements including:
  - Adding scoring and reporting grades for the CTO Airmen Written Tests to AOV responsibilities
  - Allowing Credentialed Designated Examiners with current medical clearances and tower ratings, who have never held a CTO Certificate, to become a CTO Examiner
  - Noting that an ATCS who has held a Credential with a Tower Rating has met the knowledge requirements listed in 14 CFR §65.35 and the experience requirements listed in 14 CFR §65.39
- Updating and consolidating forms into one appendix

Policy Memorandum for Credential Holders with a Tower Rating for Initial Issuance of a CTO Certificate

Through collaboration with FCT stakeholders, the Credentialing Team identified a redundancy in the initial issuance of a CTO Certificate for controllers transitioning from a Credential with a Tower Rating to a CTO Certificate. In a 2014 rulemaking (79 FR 77857), the FAA established that the Credential with a Tower Rating encompassed the requirements of the CTO Certificate. During a year-long effort, the Credentialing Team collaborated with the FAA's Office of the Chief Council to develop and implement a policy allowing initial CTO certificates to be issued to ATCS who held a Credential with a Tower Rating. This change removed obstacles for experienced FAA and DoD controllers in receiving an initial CTO Certificate to provide air traffic services for contract towers, facilitated the seamless transfer of knowledge and expertise to contract towers, and improved efficiency and effectiveness by reducing redundancy. In addition, the Credentialing Team posted the memorandum on the FAA credentialing website and other sites for transparency.

Credentialing Team Summit

In the FY20 Business Plan, AOV's Executive Director charged AOV to work to establish a clear understanding of what we do and how we do it— an integrated approach to proactive safety oversight. In an effort to be proactive in our oversight of the Credentialing and CTO Certificate Programs and empower staff by ensuring leaders provide strategic direction and high-level transparent objectives through the business

planning process, the Credentialing Team held a three-day summit in Fort Worth, TX to develop a five-year plan for the Credentialing Program. The team addressed tasks to be accomplished for the remainder of FY20 and established milestones for long-term projects. Highlights of the Summit included discussions on:

- ATCS Designated Examiner (DE) Training
- What's 'hot" in Tech Ops and current ATSS initiatives
- External Compliance Verification (ECV) Initiative
- CTO Initiatives
- ATO Reorganization
- Total reorganization of FAA Order 8000.90
- Biennial Skills Evaluation
- AIS initiatives
- Potential Credentialing for Flight Service Controllers
- DoD Credentialing
- Remote Tower Issues
- Credentialing System 2.0

Proficiency Manager and Designated Examiner Training Courses
The Credentialing Team determined the current training course used by ATO Proficiency Managers and Designated Examiners would require several updates to provide adequate task coverage. They worked with the Mission Support Staff's (AOV-20) training personnel and select stakeholders to right-size the course while providing content that includes all required information. The training courses are in the process of being finalized.

Future Activities

In FY20, AOV published AOV 2025 to describe AOV's collaborative approach to implementing a risk-based, data-driven safety oversight model and move the organization forward strategically. It is based on attributes found in the FAA Integrated Oversight Philosophy and aligns AOV activities under AVS's strategic goals and themes. Future activities in AOV-240 will support AOV's collaborative oversight efforts by aligning projects and resources with the tenets of AOV 2025 and AOV Business Plan.

Strategic Goal Supported	AOV Activity (AOV 2025)	AOV-240 FY2021 Goal
Safety	Collaboratively develop agreed upon safety metrics with ATO to measure safety performance of the ATO.	CTO-E Assessment AOV-240 conducting surveillance activity to validate appointed CTO-Es within the Credentialing system.
	Promote innovative forums for collaboration on recognized or emerging safety issues using AVS and ATO safety data.	Conduct a year-long audit to randomly sample CTO applications for accuracy and completeness in partnership with AFB-720
	Participate in management activities supporting the ATO SMS to improve awareness of identified safety hazards and the means to reduce or eliminate the effects of those hazards in ATO operations.	BSE audit/assessment
		Audit on ATSS Personnel restoring equipment in the NAS with appropriate certification authorities
Infrastructure	Develop surveillance processes beyond audits and assessments to inform AOV on the safety performance of ATO operations and the management of the ATO SMS.	Review of FAA and DoD Letters of Agreement
		Visit one DoD component on a site visit to learn about their Credentialing processes
		Ride-along with CTO Examiners to observe CTO certification process at FCTs and Non-Fed Towers
		Manual Tracking of CTO Examiners

Strategic Goal Supported	AOV Activity (AOV 2025)	AOV-240 FY2021 Goal
Innovation	Improve data-sharing across the ATO and AVS Deliver a suite of data analytics capabilities with a user interface for visualization that includes surveillance of both Technical Operations and Air Traffic Services. Use these tools to inform the oversight prioritization process.	Credentialing system 2.0
Accountability	Conduct a review of ICAO standards and recommended practices to determine oversight requirements to ensure the delivery of high quality aeronautical information system products	FAA Order 8000.90D
	Conduct a review of State (SSP), International, (ICAO) and internal FAA requirements for oversight of ANSPs.	FAA Order 7220.1 Update

WE ARE AVIATION SAFETY
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ONEAVS

Federal Aviation Administration
Air Traffic Safety Oversight Service
Room 1026, Attn: Credentialing – CTO Staff
800 Independence Avenue SW
Washington DC 20591
Telephone: (202) 267-5205
Email: 9-awa-avs-aov-credentials@faa.gov