



Safety

Oversee and operate the safest aerospace system in the world, all with a culture of continuous improvement

Safety Culture Commitment

Reinforce and promote "Safety Culture" across FAA and industry that integrates all aspects of Safety Culture (i.e., Just Culture, Reporting Culture, Learning Culture, Flexible Culture, and Informed Culture) to improve safety performance throughout the NAS. Safety culture commitment promotes safety policy, manages resources and invests in safety training, safety systems, and safety solutions; documents processes and procedures, and ensures accountability for safety.

Initiative: Risk-Based Management

Perform activities to evolve the ATO's risk based safety management system.

Activity: Expand knowledge of Voluntary Safety Reporting Programs (VSRP)

Increase safety reporting in VSRP by 5% by expanding safety knowledge of TSAP, ATSAP, ATSAP-X and SAFER FCT programs. This will include participation in new hire training, and briefings in the field, thereby improving the understanding of the programs purpose and use.

Target: Expand T-SAP Knowledge

Focus on increase of TSAP field personnel program knowledge, benefits and rights to ensure more active participation.

Initiative: Juneau Airport Wind System (JAWS) Sustainment

JAWS measures and transmits wind information to the Juneau Automated Flight Service Station (AFSS), Alaska Airlines, and the National Weather Service for weather forecasting.

Activity: Juneau Airport Wind System (JAWS) Sustainment

JAWS provides terrain induced wind and turbulence data that addresses safety of flight and decreases the probability of experiencing unnecessary weather related delays in and out of the Juneau International Airport, Alaska.

Target: Juneau Airport Wind System (JAWS) Sustainment 1

Complete Master Station Prototype #1 Assembly

Initiative: Safety Culture Recognition Program

Develop a job aid and tools to support a Recognition Program including guidance on rewarding a positive and proactive Safety Culture. Potential collaboration with AJI-4

Activity: Safety Culture Leadership Workshops

Hold Safety Culture workshops with AJI managers and at least 1 other ATO service unit. Provide support for other organizations to hold Safety Culture workshops for their Senior Leadership teams. Potential collaboration with ARP and AVS.

Target: Safety Culture Leadership Workshops

Provide discussion-based Safety Culture workshops for the AJI managers. Provide materials and guidance, at a minimum, to conduct discussion-based Safety Culture workshops in conjunction with ARP and AVS for the managers and leadership in their organizations. Share the materials with the rest of the FAA Safety Culture Ambassadors for use in their organizations.

Safety and Security Risk Management

Ensure a formalized and proactive approach to aviation safety by identifying, monitoring, assessing, and managing safety and security risks through enhanced access to data and analytics, informed risk-based decision making, improved safety metrics and security measures, and increased system safety awareness and performance.

Initiative: Advance surface safety situational awareness tools that enable real time situational awareness

The FAA will utilize cost effective, innovative, and already existing technologies to ultimately deploy into the air traffic control towers to provide situational awareness of the location of aircraft on the runway area.

Activity: Surface Situational Awareness Technology Sprint

The Technology Sprints represented in the Surface Safety Portfolio seek to deploy agile, efficient and effective surface situational awareness solutions across the National Airspace System (NAS). Approach Runway Verification (ARV) provides Tower and TRACON ATC alerts of wrong runway, closed runway and wrong airport aircraft alignments to prevent wrong runway landings. Runway Incursion Device (RID) is a memory aid device used by ATC to augment situational awareness of occupied and closed runways. Surface Awareness Initiative (SAI) is deploying a display of airport surface traffic to ATC in towers at airports that do not currently have a surface surveillance system.

Target: Approach Runway Verification (ARV)

Ensure ten (10) sites have Approach Runway Verification (ARV) available for operational use. Collaborate with AJT, AJW, and AJI.

Target: Runway Incursion Device (RID)

Complete Test Readiness Review and begin execution of developmental test procedures.

Target: Surface Awareness Initiative (SAI)

Surface Awareness Initiative (SAI) solution is installed at the first operational facility.

Initiative: Surface Safety Risk Reduction

AJI will utilize the surface safety metric to: Establish consensus among Runway Safety stakeholders on a policy to assess and quantify the risk in runway safety events. Address precursors, as well as latent risks by proactively providing event trend summaries and best practices to the field.

Activity: Runway Safety Action Teams (RSAT)

Enhance NAS Safety by expanding RSAT participation, and conducting special focus RSATs

Target: Reduce the Risk of Surface Events by Implementing Improvements and Mitigations

Conduct a minimum of 3 Special Focus RSAT meetings at airports with elevated rates of wrong surface and runway incursions, based off of data from the previous Fiscal Year. Conduct additional Special Focus RSAT meetings as needed, depending on data trends that are currently occurring. Monitor the effectiveness of the RSAT by tracking Runway Incursion rates and wrong surface operations.

Activity: Runway Safety Strategy

The FAA runway safety strategy includes training, education, and awareness initiatives via structured programs, refresher courses, printed materials, electronic materials, trade and industry journal articles to maintain runway safety as a top-of-mind priority for pilots, air traffic controllers, and airport personnel. Proper airport geometry design and technological initiatives also offer tremendous promise for the improvement of runway safety and include such devices as runway status lights and cockpit moving map displays. Finally, enhancements to air traffic procedures, phraseology and systems provide controllers with better tools to keep aircraft safely separated on runways and taxiways.

Target: Promote Data Sharing between Lines of Business to determine possible mitigations in reducing surface risk in the NAS.

The Runway Safety Group will create methods and processes on ways to share data with other organizations within and outside of the FAA. Data sharing is crucial in discovering possible mitigations to reduce surface risk in the National Airspace System. Learning from other organizations on possible causal factors in surface events will help drive possible mitigations, either locally or nationally.

Target: Reduce the Risk of Surface Events by Increasing Situational Awareness through Outreach and Education

The Runway Safety Group, in collaboration with the Office of Communications will develop, distribute and promote through social media "From the Flight Deck" series videos to assist pilots in identifying the possible risk at local airports.

Initiative: FAA Enterprise Network Services (FENS)

The FAA has ongoing and evolving needs for highly-available and secure communications, information services, and networking capabilities that are essential to NAS operations and agency administration. The FAA has always depended on the commercial telecommunications sector to provide the needed solutions, contracting out these services through the FAA Telecommunications Infrastructure (FTI) program. The FAA Enterprise Network Services (FENS) program, which is intended as a follow-on program to FTI, will enable the FAA to continue to meet its communications, information services, and networking needs - while realizing cost benefits and keeping pace with the accelerating transition of the commercial telecommunications sector from existing time division multiplexing (TDM)-based technology to Ethernet and/or internet protocol (IP)-based services in the access and transport segments. In providing Ethernet/IP-based services instead of TDM-based services, FENS will provide the modern telecommunications infrastructure required to enable the FAA's advanced information management requirements, as envisioned through the NextGen Mid-Term Concept of Operations (CONOPS).

Activity: FAA Enterprise Network Services (FENS)

Complete Final Investment Decision (FID) required artifacts by Q1 CY23 in order to complete FID and contract award in CY23.

Target: FAA Enterprise Network Services (FENS) Program

Establish Federal Aviation Administration (FAA) Enterprise Network Services (FENS) Acquisition Program Baseline (APB)

Target: FAA Enterprise Network Services (FENS) Program

Completion of Segment 1 Development Testing at Contractor's Facility

Initiative: ATO Top Safety Priorities

Identify, mitigate, and monitor top priority safety issues for the ATO to compel swift, cross-organizational, action in addressing them.

Activity: ATO Safety Issues Coordination and Mitigation

Identify and maintain top priority safety issues for the Air Traffic Organization (ATO), supported by data, to compel cross-organizational action in addressing them.

Target: Update Current ATO Top 5 Safety Issues Program

Re-deploy or replace the current Top 5 Program.

Initiative: Data Driven Safety Risk Management and New risk acceptance criteria for Space Missions in the NAS

Perform activities to evolve Data Driven Safety Risk Management. Perform activities to establish new risk acceptance criteria for Space Missions in the NAS.

Activity: Emerging Entrants- Establish new risk acceptance criteria for Space Missions in the NAS

Develop and communicate safety risk Policy that supports space missions in the NAS.

Target: Establish new safety risk criteria

Finalize Policy for applying the Acceptable Level of Risk (ALR) as risk acceptance criteria for space missions in the NAS. Develop communications plan to promote Acceptable Level of Risk (ALR) policy.

Initiative: Develop Safety Risk Metrics

Develop advanced analytics to support effective risk management

Activity: Surface Safety Risk

The Surface Safety metric represents the weighted risk of all incidents and accidents on the runway or taxiway surface. A Surface Safety metric score at or below the annual target indicates an overall reliable safety performance for the flying public in the surface environment.

Target: Manage Commercial Surface Safety Risk Index

Maintain the weighted surface safety risk index at or below 0.38 per million operations for Commercial Aviation.

Target: Manage Non-Commercial Surface Safety Risk Index

Maintain the weighted surface safety risk index at or below 1.39 per million operations for Non-Commercial Aviation.

Initiative: Advanced Data Systems and Analytics

Identification of hidden aviation risk by creating a better understanding and application of available aviation data. Laying the foundation for machine learning and artificial intelligence to become a smarter organization.

Activity: Advanced Analytics

Develop advanced analytics to support effective risk management.

Target: ML/NLP Models

Develop ML/NLP models to automate the detection of PIREP solicitation issues for the 6 facilities (ZMA, ZAU, ZDC, ZDV, ZHU, ZOB) that have acquired the PIREP Information Display (PID) tool.

Activity: Safety Tools Functionality Enhancements

Enhance safety tools platforms to incorporate innovative and modern data sources.

Target: CEDAR Enhancement

Enhancement to the CEDAR platform following the successful deployment of the technical refresh project Valkyrie. Items include OARS integration, Falcon 4 integration, dashboard embedding, and FAA template re-skin.

Initiative: Automated Maintenance Management System (AMMS)

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Activity: Automated Maintenance Management System (AMMS), M07.05-02

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Target: Automated Maintenance Management System (AMMS) Phase 1 (P1) - Simplified Automated Logging (SAL) functionality in TechOps Activity Portal (TAP) Complete.

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Initiative: System Approach for Safety Oversight (SASO)

The SASO Program is a multi-phase effort that transforms FAA Flight Standards Service (FS) and aviation industry business processes to a national standard of system safety based upon International Civil Aviation Organization (ICAO) Safety Management System (SMS) principles. Phase 1, a planning and engineering phase, tested system safety concepts, specifically with respect to the air carrier industry. Phase 2 implemented the Safety Assurance System (SAS), a risk-based decision-making tool incorporating system safety principles to assist in regulatory oversight responsibilities of the aviation industry. Phase 3 expanded the SAS functional capabilities to reduce Aviation Safety Inspector (ASI) workload and quantify certificate holder risk to assist in prioritizing resources. Phase 4 extends the SAS functional capabilities to other aviation safety organizations to enable coordination and interoperability of safety oversight systems/programs.

Activity: System Approach for Safety Oversight (SASO) Phase 4, A25.02-03

System Approach for Safety Oversight (SASO) Phase 4, A25.02-03

Target: System Approach for Safety Oversight (SASO) Phase 4 (P4) - Wave 1 Last Critical Design Review (CDR) Complete.

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Initiative: Analytical Tool Development

Facilitate the development, design, integration, and implementation of tools to improve analytical capabilities by supporting risk-analysis, assessment, tracking, and monitoring processes.

Activity: Operational Analysis And Reporting System (OARS) Phase 1, M08.32-04

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Target: Operational Analysis And Reporting System (OARS) Phase 1 (P1) - Operational Test (OT) completed.

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Initiative: Aeronautical Information Management (AIM)

The AIM Modernization program will provide aviation users with digital aeronautical information that conforms to international standards and supports Next Generation Air Transportation System (NextGen) objectives.

Activity: Federal Notices to Airmen (NOTAM) System (FNS) Sustainment

Federal Notices to Air Missions (NOTAM) System (FNS) Sustainment

Target: Federal Notices to Air Missions (NOTAM) System (FNS)

Complete 2.20 Deployment

Initiative: Common Support Services Weather (CSS-Wx)

Common Support Services - Weather (CSS-Wx) will be the single source of FAA weather information and establishes enterprise level common support services within the National Airspace System (NAS). CSS-Wx Improves weather information management and user access; provide new interface standards and formats.

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Target: Common Support Services - Weather (CSS-Wx)

Complete Operational Test (OT)

Initiative: Next Generation Weather Processor (NWP)

NextGen Weather Processor (NWP) Work Package 1 Increases NAS efficiency and safety by improving weather product generation, translation, and display for aviation weather users

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Target: NextGen Weather Processor (NWP)

Complete Operational Test (OT) Key Site

People

Strengthen our current and future aviation workforce by holding ourselves accountable, developing our people and planning for the aviation workforce of the future

Diversity, Equity, Inclusion, and Accessibility

Ensure a more conscious and inclusive culture that embraces the diverse talents of employees, ensures fair and equitable treatment, and advances broader gains in diversity, equity, inclusion, and accessibility.

Initiative: EEO/Diversity and Inclusion Action Committee (EAC)

Utilize the EEO Action Committee (EAC) to enhance, collaborate and support a diverse and inclusive workplace with existing employee workgroups and LOBs/SO. Collaborate with AHR's Corporate Recruitment Council to develop an annual outreach plan, targeting underrepresented groups within the agency.

Activity: Ensure a Diverse and Inclusive Workforce - Reasonable Accommodations

Support the FAA's corporate goal to process 90% of the agencies Reasonable Accommodation request within 25 days or less.

Target: ATO - Reasonable Accommodations

Support the FAA's corporate goal to process 90% of the agency Reasonable Accommodation requests within 25 days or less.

Activity: Ensure a Diverse and Inclusive Workforce - Mediation

Managers engage in the mediation/facilitation process when requested.

Target: ATO - Mediation

Ensure that 70% of managers engage in mediation when requested by employees.

Initiative: Train Managers and Employees across the Agency in Diversity, Equity, Inclusion, and Accessibility (DEIA)

ACR will lead collaboration with LOBs/SOs to train managers and employees in DEIA.

Activity: ACR will Lead Collaboration with LOBs/SOs to Train Managers and Employees in DEIA.

The Office of Civil Rights will provide LOB/SOs with a list of DEIA training courses approved by ACR and will provide monthly completion totals to support their efforts in achieving the goal that 75% of managers and 25% of employees attend one training course each fiscal year.

Target: ATO - Train Managers and Non-Managerial Employees in a Minimum of One DEIA Training Course

Ensure at least 75% of managers and 25% of employees attend a minimum of one training course from a menu of DEIA training courses.

Human Capital Management

Enhance FAA's human capital management capabilities to support innovation and collaboration that will empower a synergetic, data-driven workplace. Leverage data and technology to continuously identify and address human capital management opportunities and efficiencies. Position the FAA as an employer of choice by promoting career opportunities to attract the workforce of the future, while maintaining a culture that enhances employee engagement and accountability. Ensure that the FAA retains a diverse and high performing workforce by providing varied learning opportunities and workplace flexibilities.

Initiative: Small Business Opportunities

Support small businesses and job creation by providing opportunities for small businesses to attain FAA contracts and purchase orders, with special emphasis on procurement opportunities for socially and economically disadvantaged small businesses (including 8(a) certified firms), service-disabled veteran-owned small businesses, and women-owned small businesses.

Activity: Contracting with Small Businesses

Utilize market analysis and acquisition strategies to provide opportunities for small businesses to compete for, and attain FAA contracts and purchase orders, with special emphasis on procurement opportunities for socially and economically disadvantaged small businesses (including 8(a) certified firms), service-disabled veteran-owned small businesses, and women-owned small businesses, economically disadvantaged women-owned small businesses, and historically underutilized business zone small businesses.

Target: AJM - Support ACQ's Small Business efforts

Support ACQ's efforts to ensure at least 25% of the Agency's total direct procurement dollars are awarded to small businesses.

Target: AJW-2 - Support ACQ's Small Business efforts

Support ACQ's efforts to ensure at least 25% of the Agency's total direct procurement dollars are awarded to small businesses.

Activity: Contracting with Small Disadvantaged Business (SDB)

Utilize market analysis and acquisition strategies to provide opportunities for Small Disadvantaged Businesses (SDB) to compete for and attain FAA contracts and purchase orders.

Target: AJM - Support ACQ's Small Disadvantaged Business efforts

Support ACQ's efforts to ensure at least 14% of the Agency's total direct procurement dollars are awarded to Small Disadvantaged Businesses (SDB).

Target: AJW-2 - Support ACQ's Small Disadvantaged Business efforts

Support ACQ's efforts to ensure at least 14% of the Agency's total direct procurement dollars are awarded to Small Disadvantaged Businesses (SDB).

Initiative: Field Delivery Training and Air Traffic Training Performance Standards

Implement Field Delivery Training, which will expedite training in the field and reduce throughput at the FAA Academy. Redefine air traffic training from the foundation. Create training blocks, add human performance training, and change the training culture from evaluating to instructor perspective at all phases.

Activity: TRACON Skill Enhancement Workshop (TSEW) Training

Identify the need for facilities and resources to deliver TSEW training at multiple location. The current backlog has created waivers to the field to adjust training to certification.

Target: Conduct TSEW Training

Conduct TSEW Field Training for 60 students at FAA facilities throughout the country.

Activity: Assess Air Traffic Control Training

AJI-2 will assess training that occurs in the field to include order updates, compliance, scenarios, and audits.

Target: Draft Training Performance Standards

Draft Training Performance Standards and finalize scoping document for sub-work group. Develop Tower, TRACON, and Enroute standards. Test at various facilities, collect data, and brief leadership on national implementation.

Target: Conduct Training Assessment Survey

Document the findings of the Training Assessment Survey at 313 Facilities and submit recommendations to AJI Leadership.

Initiative: PMO Acquisition Workforce

Ensure the PMO has the staffing and skill mix to successfully manage NextGen and other major acquisitions by implementing training, developing and certifying personnel in key acquisition professions. The PMO has an Acquisition Workforce goal tracked at the AJM-0 level to ensure the Program Managers with certifications due in the current Fiscal Year are obtaining the necessary requirements for their positions. The PMO works with AAP-300, Acquisition Career Management Division, to get monthly status and updates for the overall PMO goal. AJM-1 will continue to track/monitor/status the AJM-0 level PMO Acquisition Workforce goal. The PMO Leadership Team has indicated that each Directorate will track the certifications internally.

Activity: PMO Acquisition Workforce

Attain certification requirements for program managers (PMs) and contracting officers due in the current Fiscal Year.

Target: AJM-2 Acquisition Workforce

Provide monthly status on the certification requirements of Program Managers responsible for managing Office of Management and Budget (OMB) major programs in the portfolio.

Target: AJM-3 Acquisition Workforce

Provide monthly status on the certification requirements of Program Managers responsible for managing Office of Management and Budget (OMB) major programs in the portfolio.

Target: AJM-4 Acquisition Workforce

Provide monthly status on the certification requirements of Program Managers responsible for managing Office of Management and Budget (OMB) major programs in the portfolio.

Initiative: PMO Integrated Services & Analysis

PMO Integrated Services & Analysis

Activity: PMO Integrated Services and Analysis

PMO Integrated Services and Analysis

Target: Develop Future Leaders

Develop the key elements and skills necessary to grow the next generation of leaders and ensure continuous organizational performance and service delivery.

Target: Establish Meaningful Partnerships

Streamline and enhance stakeholder outreach for specific audiences and goals.

Activity: Integrated Resources Management

Integrated Resources Management

Target: Financial and Acquisitions Knowledge Sharing

Increase financial and acquisitions knowledge.

Activity: Program Acquisition Support & Analytics

Program Acquisition Support & Analytics

Target: Tech Refresh Portfolio (TRP) - Internal PMO Deep Dive Recommendations

Update the existing Tech Refresh Portfolio (TRP) Guidance document.

Target: Baseline Program: Lessons Learned Initiative

Develop and share an initial lessons learned artifact documenting known/recurring causal factors that programs may encounter during the acquisition lifecycle.

Activity: Planning, Analysis & Integration

Planning, Analysis & Integration

Target: Leadership, Planning and Oversight PMO Level Initiatives

Develop high level Plans of Action and milestones for PMO level initiatives.

Target: Systems Engineering Best Practices

Provide Systems Engineering guidance by developing and promoting best practices.

Target: Systems Engineering Knowledge Sharing

Enhancing technical practical knowledge across the PMO by delivering knowledge sharing services.

Initiative: Strong Acquisition Workforce

Ensure FAA has the staffing and skill mix to successfully enable the NAS by implementing training, developing and certifying personnel in key acquisition professions.

Activity: Train and Certify FAA's Acquisition Workforce

Attain and maintain certification requirements of program managers (PMs) and contracting officers.

Target: Attain and maintain certification requirements (AJM)

Attain and maintain certification requirements: 90% of program managers (PMs) on Office of Management and Budget (OMB) major acquisition programs attain/maintain certification requirements for their positions.

Initiative: AJI Employee Development

Educate, prepare, and grow AJI leaders from within.

Activity: Developmental Resources and Programs

Provide AJI Workforce Development resources and programs.

Target: Offer Training

Deliver training and seminars for management and staff in accordance with plans

Target: Develop AJI Communications Vehicles

Partner with AOC to develop and execute four tailored AJI communication campaigns and vehicles based on the intended audience to target AJI personnel and stakeholders at HQ and in the field.

Initiative: ATO Organizational Effectiveness

Working collaboratively with Management Services (AJG) senior leadership to design, plan and implement solutions that improve their service delivery, organizational culture and overall performance for the ATO.

Activity: ATO Organizational Effectiveness Programs and Services

Provide ATO-wide support with organizational development activities as core work.

Target: Collaboration and Organizational Development Programs and Services

This deliverable contains three main areas: (1) Provide at least 100 collaboration training sessions, alignments, engagements, trainings and development sessions to at least 1200 participants in a hybrid learning model that may include virtual and/or in-person interaction; (2) Provide at least 60 organizational development workshops, trainings, strategic facilitations, consultations, engagements, trainings, assessments and/or development/coaching sessions to at least 750 participants in a hybrid learning model that may include virtual and/or in-person interaction; and (3) Lead ATO Coaching Advisory Council (CAC) meetings with members invited from every Service Unit in the ATO at least once per quarter and provide at least 4 ATO Coaching Tools to all Service Units. Deliveries of programs/services are subject to availability of funds.

Initiative: Integrated Talent Management

Provide integrated talent management support to the ATO that addresses critical talent issues for the Service Units, to include: customized leadership development, career and succession planning programs and services, including some low to no-cost development opportunities. Collaborate with internal and external partners and stakeholders to leverage ATO and corporate programs and services to provide the right skills to the right people at the right time to meet the ATO's tactical and strategic needs. Provide consultation and technical subject matter expertise to ATO executive leadership and their supporting management teams on 11 Collective Bargaining Agreements (CBAs) covering 18 bargaining units and over 25,000 employees. Ensure labor relations/agency policies are applied consistently throughout the Agency by providing technical expertise on the application of the ATO CBAs to other lines of business and staff offices to solve a variety of complex issues involving: Civil Rights, EEO, Security, Human Resources, Labor Relations, and Aerospace Medicine.

Activity: Lead Collective Bargaining Agreement negotiation and training efforts for the ATO

Lead and/or support ATO efforts to negotiate Collective Bargaining Agreements (CBAs) including training and implementation. Provide refresher training on CBAs that were extended for multiple years i.e. NATCA Slate book.

Target: PASS and NAGE Collective Bargaining Agreement (CBA) Negotiations

Support CBA negotiations for the Professional Aviation Safety Specialists (PASS) ATO CBA and for the National Association of Government Employees (NAGE) ATO CBA, including training and implementation.

Global Leadership

Advance global aviation safety, operational excellence and innovation by leading and collaborating with aviation authorities globally

Seamless and Sustainable International Operations

Promote seamless, harmonized, and sustainable international operations by improving operational excellence in delegated airspace and neighboring FIRs, international capacity building, research and innovation, and environmental sustainability.

Initiative: Ensure seamless and efficient movement of aircraft across international boundaries adjacent to U.S. managed airspace

The FAA shares Flight Information Region boundaries with 20 foreign ANSPs. It is critical that the movement of aircraft is as seamless and interoperable as possible. The FAA will cooperate with neighboring ANSPs to increase communications, navigation, and surveillance data sharing. The FAA will share the latest best practices; provide training, equipment repair, and loans; and harmonize procedures and separation standards. The FAA will deepen regional collaboration in Air Traffic Flow Management, Collaborative Decision Making, and performance-based operations, and seek greater participation in air traffic services data and network sharing. The FAA will strengthen regional planning and resiliency for exigency events, such as hurricane and pandemic response.

Activity: Collaborate with Neighboring Air Navigation Service Providers (ANSPs)

Address U.S. regulated/controlled airspace matters in collaboration with ICAO and ANSPs.

Target: Provide Plan for Multiregional Volcanic Ash Exercise

The ATO will plan one event to educate foreign ANSPs on how best to integrate volcanic ash operations into their airspace.

Initiative: Ensure air navigation procedures, technologies and standards are safe and efficient across international boundaries and regions

Beyond neighboring flight information regions, U.S. operators sometimes encounter inefficient airspace management, divergent standards and procedures, different equipment requirements, and other challenges. The U.S. aircraft and equipment manufacturers also encounter many of the same obstacles. The FAA is in a position to lead improvements in safety and efficiency with specific counterparts. The FAA will work through ICAO to encourage global ATM procedures, standards, and technologies that are safe, efficient, and harmonized. The FAA will engage with key international stakeholders such as EUROCONTROL and national air navigation service providers on the advancement and harmonization of emerging technologies and standards in air navigation services. The FAA will share best practices in implementing new procedures, technologies and standards through CANSO, ICAO regional bodies, and other ANSPs. Where appropriate, the FAA will provide direct technical and operational support to improve safety and efficiency; to assist in the development of resilient airspace systems and disaster recovery.

Activity: Africa Initiative

The ATO will engage with key international stakeholders such as ICAO, IATA, AFCAC, CANSO, Boeing and Mitre to work collaboratively in support of the ATO's Africa initiative.

Target: Africa engagements

The ATO will conduct at least one workshop for safety culture and one for cybersecurity in the Region. Where appropriate, the ATO will provide direct technical and operational support to improve the Region's overall safety and efficiency initiatives. Lead Org. AJV-I; Supporting Org. AVS, ARP.

Operational Excellence

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

Mission Efficiency and Support

Optimize efficiency and support mission requirements through daily execution, continuous improvement, planning, infrastructure resiliency, and investment. Effectively plan for and manage finances, procurement, information technology, and other mission support services.

Initiative: Bipartisan Infrastructure Law

The Bipartisan Infrastructure Law is a once-in-a-generation investment in America's transportation network. It will modernize infrastructure, increase equity in transportation, help fight climate change, strengthen the supply chain, and create jobs. As the FAA's BIL Representative, Gian Macone will oversee the performance of such goals.

Activity: BIL - 30x30

Complete Construction on a Total of 30 Staffed Air Traffic Control Towers by 2030.

Target: Airport Traffic Control Tower Design

Complete a standard design on a low activity sustainable Airport Traffic Control Tower (ATCT).

Initiative: Data Communications - Segment 1 Phase 2 Initial En Route Services

Provide Data Comm Initial En Route Services

Activity: Data Communications - Segment 1 Phase 2 Initial En Route Services

Execution of Data Comm Initial En Route Services Deployment

Target: Data Communications - Segment 1 Phase 2 Initial En Route Services

Achieve 24/7 operations at two (2) additional Air Route Traffic Control Centers (ARTCCs)

Initiative: Time-Division Multiplexing to Internet Protocol (TDM-to-IP) Migration

The Time-Division Multiplexing to Internet Protocol (TDM-to-IP) Migration program will begin the systems interface development work in order to modernize National Airspace System (NAS) Systems to be IP-compatible. More than 90 percent of the 23,000 services obtained under the FAA Telecommunications Infrastructure (FTI) contract are TDM-based. FTI makes extensive use of the infrastructure of commercial Telecommunications carriers to reach more than 4,000 facilities operated by the FAA within the Continental United States (CONUS) and outside the CONUS (OCONUS).

Activity: Enterprise Solutions and Engineering: TDM-IP Migration

Modernize the system communications interface of NAS systems to be IP-compatible as part of the standard technology refresh process: As these carriers phase-out TDM-based infrastructure and migrate to IP-based technology, the potential impacts to the FAA are significant because the majority of NAS services are dependent upon the precision timing, deterministic performance, and low latency of TDM-based services.

Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration

Obtain formal Authority to Operate (ATO) for Conversion Appliance System Service (CASS) from ACG

Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration, Network Portfolio Remote Telecommunications Infrastructure Replacement (RTIR)

Complete six hundred and ninety (690) cumulative Remote Telecommunications Infrastructure Replacement (RTIR) site transitions.

Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration En Route Automation Modernization (ERAM) All Purpose Structured Eurocontrol Surveillance Information Exchange (ASTERIX)

Complete Operational Test for En Route Automation Modernization (ERAM) All Purpose Structured Eurocontrol Surveillance Information Exchange (ASTERIX) functionality.

Target: NAS Integration and Infrastructure Solutions - Integrated Enterprise Services Platform (IESP) External Demilitarized Zone (DMZ) and Public Demilitarized Zone (DMZ) Expansion project

Achieve the Test Readiness Review (TRR) milestone to place hosting assets on the operational ACY/OEX External Demilitarized Zone (DMZ) and ACY/OEX Public Demilitarized Zone (DMZ) environments in support of the Enterprise Information Display System (E-IDS) program.

Target: NAS Integration and Infrastructure Solutions - Internet Protocol (IP) Service Between Federal Aviation Administration (FAA) and Portugal

Implement Internet Protocol (IP) service between the Federal Aviation Administration (FAA) and Portugal to replace existing Time Division Multiplexing (TDM) connection.

Initiative: Voice Switching and Control System (VSCS) Tech Refresh Phase 4

Voice Switching and Control System (VSCS) controls the switching mechanisms allowing controllers to select the communication channel needed to communicate with pilots, other controllers, other air traffic facilities, and commercial telephone contacts. Controllers need to be able to quickly select the proper channel, to communicate with pilots, coordinate with other controllers and/or contact emergency services as necessary. The VSCS Technology Refresh program will replace/upgrade hardware and software components for the voice switching systems in all 21 en route air traffic control centers. The real time Field Maintenance/Testing System at the FAA William J. Hughes Technical Center (WJHTC) and the Training System at the FAA Academy will also be upgraded to perform the same as an operational site. These upgrades will ensure the air-to-ground and ground-to-ground communications capabilities are reliable and available for separating aircraft, coordinating flight plans, and transferring information between air traffic control facilities in the en route environment. To date, this program has replaced the VSCS internal control systems, updated the obsolete language used in some software programs, and replaced the VSCS Timing and Traffic Simulation Unit at the FAA WJHTC. This WJHTC test bed is being used to test the capabilities of the upgraded systems to determine if they meet the formal baseline requirements established for VSCS performance before they are deployed to operational field facilities. VSCS Technology Refresh Phase 3 (P3) will be dependent upon engineering analysis which will include Ground-to-Ground (G/G) node reduction efforts (approximately 10 nodes), Fiber Optic Tie Trunk (FOTT) power supply replacements (approximately 500 supplies), Local Area Network (LAN) Transceiver retrofits (approximately 7,000), and the PLM to C software conversion for the Air-to-Ground (A/G) switch. A Final Investment Decision for VSCS Technology Refresh P3 was approved Nov. 2012.

Activity: Voice Switching and Control System (VSCS) Sustainment 4

Design, develop, and test VSCS technical refresh hardware and software.

Target: Legacy Voice Switch Sustainment (LVSS) - Voice Switch and Control System (VSCS) Sustainment

Voice Switch and Control System (VSCS) -Common Switch Power Supply (CSPS) Replacement - Complete Critical Design Review (CDR).

Initiative: Communications Facilities Enhancement

The Communications Facilities Enhancements (CFE) program provides new or relocated radio control facilities to enhance the A/G communications between air traffic control and aircraft when there are gaps in coverage or new routes are adopted by aircraft flying through the facility's airspace.

Activity: Expand Communications Facilities Enhancement (CFE)

Expand Communications Facilities Enhancement (CFE)

Target: Air/Ground Voice Communications-Communication Facilities - Sustain (CF-S)

Complete four (4) Communication Facilities - Sustain (CF-S) Corporate Work plan projects.

Initiative: Next-Generation VHF A/G Communications System (NEXCOM) - Segment 2-Phase 1

The NEXCOM program replaces and modernizes the aging and obsolete NAS air-to-ground (A/G) analog radios that allow direct voice communication with pilots. Segment 2 will implement new radios that will service the high-density terminal areas and the flight service operations from FY 2010 to FY 2022.

Activity: Next-Generation VHF A/G Communication System (NEXCOM2) - Phase 2

Next-Generation VHF A/G Communication System (NEXCOM2) - Segment 2 Phase 1: Deploy Terminal and Flight Services Air Traffic Control Radios.

Target: Air/Ground Voice Communications-Next Generation Very High Frequency (VHF) and Ultra High Frequency (UHF) Air/Ground (A/G) Communications (NEXCOM) Phase 2

Operational Readiness Demonstration (ORD) at ninetieth (90th) Next-Generation Air/Ground Communications (NEXCOM) Phase 2 site.

Initiative: Airport Cable Loop Systems Sustained Support

This program replaces existing on-airport, copper-based, signal/control cable lines that have deteriorated. The primary focus will be on projects at airports with high traffic counts and enplanements.

Activity: Airport Cable Loop Systems Sustained Support

Airport Cable Loop Systems Sustained Support. Install fiber optic cable loop.

Target: Air/Ground Voice Communications-Airport Cable Loop Systems (ACLS) Sustained Support

Complete two (2) Airport Cable Loop Systems (ACLS) Corporate Work plan projects.

Initiative: Tower Simulation System (TSS) Modernization

Modernize Tower Simulation System (TSS) by updating the software and upgrading the hardware across the NAS.

Activity: Tower Simulation System (TSS) Enhancement 1 Implementation

Complete Final Investment Analysis and initiate the implementation of Enhancement 1.

Target: Complete Software Validation

Complete software validation at three sites.

Target: Initiate Solution Implementation Phase of the Acquisition Management System

Deploy hardware and software refresh to 15 TSS .

Initiative: Data Communications - Segment 1 Phase 2 Full Services

Provide Data Communications Full En Route Services

Activity: Data Communications - Segment 1 Phase 2 Full Services

Execution of Data Communications Full En Route Services deployment

Target: Data Communications - Segment 1 Phase 2 Full Services

Training Development Complete

Initiative: Radio Control Equipment (RCE) System

Sustaining operation until Radio Control Equipment (RCE) has been fully replaced with Air/Ground Protocol Converters (APC). The main objective is to keep the current RCEs and their monitoring systems including Communication Server Interface Units (CSIUs) operational until their replacement by APCs.

Activity: Radio Control Equipment (RCE) System

Procure and install new Communication Server Interface Units (CSIUs) as part of tech refresh for the Radio Control Equipment (RCE) monitoring system.

Target: Radio Control Equipment (RCE) System

Receive Final Shipment of Radio Control Equipment (RCE) - Sustainment Communication Server Interface Units (CSIUs).

Initiative: Flight Program Fleet Modernization

The Flight Program Fleet Modernization (FPFM) Program will modernize the fleet and transition to multi-mission capable aircraft to decrease the number of makes and models while maintaining the capability to support multiple mission types.

Activity: Flight Program Fleet Modernization (FPFM) Phase I

Phase 1 will acquire four used Bombardier Challenger 605/650 long-range jets to supplement the two existing Bombardier Challenger 605 jets.

Target: Aircraft 4 Modified

All FAA required modifications are complete; aircraft are mission capable.

Activity: Flight Program Fleet Modernization (FPFM) Phase II

Phase 2 will acquire 18 new King Air 350/360 ER mid-range turboprop aircraft.

Target: Preliminary Design Review (PDR)

The PDR is complete when the service team determines that action items resulting from the review are sufficiently addressed and the contractor is authorized to proceed.

Initiative: Unmanned Aircraft Systems (UAS) Services

UAS Services Low Altitude Authorization and Notification Capability (LAANC) provides an automated approval process for airspace authorizations in controlled airspace under 400ft. Through automated applications developed by an FAA Approved UAS Service Suppliers (USS), drone pilots apply for an airspace authorization.

Activity: Unmanned Aircraft Systems (UAS) Services

Unmanned Aircraft Systems (UAS) Services

Target: Low Altitude Authorization and Notification Capability (LAANC) -Before You Fly (B4UFLY)

Incorporate airspace awareness features and decision support tools from the Before You Fly (B4UFLY) platform into Low Altitude Authorization and Notification Capability (LAANC) Business Mode

Target: UAS Flight Restriction (UAFR)

Complete system design and requirements development for the UAS Flight Restriction (UAFR) Minimally Viable Product.

Initiative: Training Administration

Improve Technical Training's Administration through establishment of new tools and processes.

Activity: Out of Agency Training

Create Standard Process for Out of Agency Training (OAT).

Target: Create Standard Process for Out of Agency Training (OAT)

Develop and document an AJI-2200 process or determining Quota management roles and responsibilities for OAT versus traditional development including a process for right-sizing a schedule based on AJW's needs for model-specific training.

Activity: Technical Operations Proficiency Training

Develop a standard policy for Technical Operations Proficiency Training.

Target: Technical Operations Proficiency Training

Draft the policy language for Technical Operations Proficiency Training.

Activity: FAA JO 3120.4 Air Traffic Technical Training

Continuously update FAA JO 3120.4 Air Traffic Technical Training to align with changes to Air Traffic Control policies, procedures, technology, etc.

Target: Update FAA JO 3120.4 Air Traffic Technical Training

Publish JO 3120.4S, Air Traffic Technical Training.

Activity: Predictive Training Schedules

Establish a process for predicting student needs for training classes.

Target: Predictive Technical Operations Training Schedules

Establish and document a process for creating predictive Technical Operations training schedules with a three-year outlook to forecast instructor resources at the FAA Academy.

Initiative: AJW-B NAS Security and Enterprise Operations

Maintain the current mission, vision, and core values of NAS Security and Enterprise Operations (NASEO). Provide operational management of systems providing data in the areas of flight planning, weather data, traffic flow, aeronautical information, and satellite navigation, for US and international stakeholders.

Activity: ATO Cybersecurity Group AJW-B400 (Vulnerability Processes)

Protect and defend FAA information, information systems and networks to mitigate risks to the FAA mission and services. Mitigate evolving cyber threats and Information Systems Security (ISS) vulnerabilities that have the potential to impact Air Traffic Operations. This is done by providing Risk Management System Authorization, Governance, Architectural Development, Monitoring, Detection, and Response through NAS Cyber Operations.

Target: Vendor Security Enclave (VSE) M31.05-01

Vendor Security Enclave (VSE): Complete VSE Phase 2 at ACY including configuration, security assessment and authorization.

Initiative: Very High Frequency Omni-Directional Range (VOR) - Tactical Air Navigation (TACAN) (VORTAC) - Landing and Lighting Portfolio

The VOR collocated with Tactical Air Navigation (VORTAC) Program relocates, refreshes technology at VOR and VORTAC facilities, and improves VOR operational performance by procuring and installing Doppler electronic kits and Doppler antenna hardware kits to upgrade the conventional systems. Numerous VORs have radial restrictions because of encroachment by obstacles that block the transmission of VOR signals. Doppler upgrades for a VOR eliminates the signal reflection restrictions caused by newly constructed tall buildings, nearby industrial parks with a high concentration of metallic buildings, overhead transmission lines, radio, television and cellphone towers, and, more recently, wind farm stations. The VOR and VORTAC (a combination of VOR and Tactical Air Navigation (TACAN) system) provide navigational guidance for civilian and military aircraft in both the en-route and terminal areas.

Activity: Ground Based NavAids –Very High Frequency Omni-Directional Range (VOR) - Tactical Air Navigation (TACAN) (VORTAC)

In FY24 the VORTAC Program will enhance VOR signal performance by converting TACANS to DMEs. There are numerous VORs that have signal restrictions due to encroachment of obstacles that block the transmission of VOR signals. These restrictions are having a serious impact on en-route, arrival, and departure procedures. Natural encroachment also comes from trees located outside the boundaries of the FAA controlled area where the VOR is located which have grown tall enough to cause electromagnetic interference. Many manmade obstacles can cause the same interference. Examples include: newly constructed tall buildings; nearby industrial parks with a high concentration of metal buildings; overhead transmission lines; towers for radio, television, and cell service; and more recently, wind farms. Dopplerizing a VOR eliminates the signal reflection restrictions caused by most of these obstacles.

Target: Very High Frequency Omni-Directional Range (VOR) - Tactical Air Navigation (TACAN) (VORTAC) - Landing and Lighting Portfolio

Convert six (6) Tactical Air Navigation (TACAN) systems to Distance Measuring Equipment (DME) (CAM Goal)

Initiative: Runway Safety Area - Navigation Mitigation

The Runway Safety Area (RSA) Sustainment 2 program will correct FAA-owned facilities and equipment (F&E) that are not in compliance with RSA Standards defined in the Advisory Circular 150/5300-13A and not part of the RSA Phase I effort. Compliance with the RSA standards provide a measure of safety in the event of an aircraft's excursion from the runway by significantly reducing the extent of personal injury or aircraft damage during overruns, undershoots and veer-offs. Thus, the primary benefit of the RSA Phase II program is the prevention of loss of life from aircraft striking non-compliant NAVAIDs located in designated RSAs.

Under the previous RSA Phase I effort, between FY 2010 and December 2018, the FAA successfully executed 1,401 projects to correct violations at 611 RSAs. Although significant progress has been made to mitigate all known RSA violations, additional RSA violations have been found during routine Air Traffic Organization and ARP inspections. RSA Phase II will ensure that previously undiscovered violations are corrected in a timely manner.

Activity: Runway Safety Area (RSA) Navigation Mitigation Phase II

In FY24 the RSA program will upgrade Runway Safety Areas to meet standards.

Target: Runway Safety Area (RSA) 2

Complete three (3) Runway Safety Area (RSA) Projects

Initiative: Visual NavAids - Replace Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicators (PAPI) - Landing and Lighting Portfolio

The International Civil Aviation Organization (ICAO) has recommended that all International airports replace the Visual Approach Slope Indicator (VASI) lights with Precision Approach Path Indicators (PAPI) lights. This standardizes the equipment used to allow pilots to determine visually that they are on the proper glideslope for landing. The program supports the procurement, installation, and commissioning of PAPI systems in order to comply with this ICAO recommendation. At the inception of this program, there were approximately 1,387 older (pre-1970's) VASIs at international and other validated locations requiring replacement. The first phase of the program addresses replacement of VASI systems at approximately 329 ICAO runway ends. The remaining VASI systems in the NAS will be replaced during the second phase of the program.

Activity: Visual NavAids - Replace Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicators (PAPI) - Landing and Lighting Portfolio

In FY24 VASI systems will be replaced with PAPI systems. The replacements will improve on-time performance by improving availability of the visual approach slope guidance systems used to help pilots touch down at the appropriate location on the runway.

Target: Visual NavAids - Replace Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicators (PAPI) - Landing and Lighting Portfolio

Complete installation for eight (8) Precision Approach Path Indicator (PAPI) systems to replace Visual Approach Slope Indicator (VASI) systems.

Initiative: Augmentations for Global Positioning System (GPS) Wide Area Augmentation System (WAAS) Phase 4B

Wide Area Augmentation System (WAAS) is a combination of ground based and space-based system that augments the GPS Standard Positioning Service. WAAS utilizes GPS signals to refine position and provide improved accuracy. WAAS consists of a network of 38 precisely located ground reference stations distributed across the United States, Canada and Mexico that monitor the Global Positioning System (GPS) satellite signals. Three master stations collect reference station data and calculate corrections and integrity messages for each GPS satellite. The WAAS messages are broadcast to user receivers via leased navigation transponders on three commercial geostationary (GEO) satellites. The receiver on the aircraft applies corrections and uses integrity information from the WAAS message, to ensure the validity and obtains a precise navigation position.

Activity: Augmentations for Global Positioning System (GPS) Wide Area Augmentation System (WAAS) Phase 4B

During Phase 4B, the WAAS Program Office will continue to support GPS civil technical oversight efforts. The GPS technical oversight ensures changes the Department of Defense (DoD) makes to the GPS constellation does not impact the FAA's WAAS and GPS based aviation users.

Target: Augmentations for Global Positioning System (GPS) Wide Area Augmentation System (WAAS) Phase 4B

Complete Build Linux prototype

Activity: Augmentations for Global Positioning System (GPS) Wide Area Augmentation System (WAAS) Phase 4B

The program will ensure Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) approach procedures are available at each of the 5,218 runways in the NAS that meet the criteria.

Target: Augmentations for Global Positioning System (GPS) Wide Area Augmentation System (WAAS) Phase 4B

Fund AJV, AJF, and Operations Support Group (OSG) Flight Procedures Team (FPT)s to design, develop, chart, flight inspect, and publish twenty-five (25) Wide Area Augmentation System (WAAS) Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) procedures

Initiative: Runway Visual Range (RVR) - Landing and Lighting Portfolio

The Runway Visual Range (RVR) Replacement/Establishment program allows airports to conduct takeoff and landing operations during conditions of low visibility. Replaces older RVR equipment with Personal Computer (PC) Based RVR equipment as well as equipment for sites that have qualified for an upgrade from a Category I to a Category II/III precision approach. RVR provides air traffic controllers with a measurement of the visibility at key points along a runway that is used to decide whether it is safe to take off or land during limited visibility conditions. During reduced visibility weather conditions, RVR system measurements are used by Air Traffic to establish airport operating categories; thus, properly equipped aircraft with a trained crew may continue operations under reduced visibility Category I, Category II and Category III conditions. RVR decreases diversions and delays at an airport by providing an accurate measure of the runway visibility. The RVR information affects airline scheduling decisions and air traffic management decisions regarding whether flight plans should be approved for an aircraft to fly to or take off from an airport with low visibility.

Activity: Runway Visual Range (RVR) - Landing and Lighting Portfolio

In FY24 the RVR program will procure and install the new-generation RVR and PC-based RVR systems. Replacement decisions are prioritized based on the level of Internal Activity at the airport, equipment age and life-cycle issues, such as: Reliability, Availability and Maintainability. This project also provides the equipment for sites that have recently qualified for an upgrade from a Category I to a Category II/III precision approach. The replacement or upgraded equipment will require less maintenance and repair time, which reduces system downtime, and supports the performance measure to maintain operational availability of the NAS.

Target: Runway Visual Range (RVR) - Landing and Lighting Portfolio

Complete installation of twenty (20) Runway Visual Range (RVR) systems.

Initiative: Visual Navigational Aids - NavAids - Sustainment - Landing and Lighting Portfolio

The NavAids Sustainment Program renovates or replaces airport approach lighting systems at sites where there is a high risk for failure and where that failure would result in loss of the primary precision approach. NavAids include: MALSR for Category I approaches, ALSF-2 for Category II/III approaches, Runway End Identifier Lights (REIL), Lead-In Lights (LDIN), and Precision Approach Path Indicator (PAPI).

Activity: Visual Navigational Aids - NavAids - Sustainment - Landing and Lighting Portfolio

In FY24 this program will renovate or replace airport approach lighting systems at sites where there is a high risk for failure of these systems and where failure would result in denying use of the primary precision approach. NAVAIDS include: * Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) for Category I approaches, * High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) at Category II/III approaches, and * Runway End Identifier Lights (REIL).

Target: Visual Navigational Aids - NavAids - Sustainment - Landing and Lighting Portfolio

Complete one (1) Medium Intensity Approach Lighting System (MALSR) replacement project.

Initiative: Distance Measuring Equipment (DME) - Landing and Lighting Portfolio

The Distance Measuring Equipment (DME) is a radio navigation aid used by pilots to determine the aircraft slant distance from the DME location. The program is procuring and installing state-of-the-art DME systems to: support replacement of DMEs that have exceeded their service life expectancy, establish new DMEs at qualifying airports, to relocate DME facilities, and establish DMEs in lieu of Instrument Landing System marker beacons. DMEs reduce the need for less desirable step-down non-precision approach procedures in which a pilot descends to the minimum allowable altitude to visually locate the runway. DMEs lead to better specification and control over the vertical descent profile and reduces controlled-flight-into-terrain (CFIT) risk.

Activity: Distance Measuring Equipment (DME) - Landing and Lighting Portfolio

In FY24, the DME Program will provide program management, system engineering, logistics support, procurement of DME systems, to complete establish/replacement DME projects.

Target: Distance Measuring Equipment (DME) - Landing and Lighting Portfolio

Complete installations of five (5) Distance Measuring Equipment (DME) systems.

Initiative: Terminal Voice Switch

Terminal Voice Switch Replacement (TVSR) II -The TVSR program manages NAS voice communications systems in the terminal environment through system replacements and continued sustainment efforts. These activities allow continuous availability of the following NAS services: air-to-ground communications between controllers and aircraft, ground-to-ground communications between controllers, and emergency back-up communications.

Activity: Terminal Voice Switch Sustainment

The TVSR program has been in place for more than 25 years. TVSR has historically undertaken deployments and sustainment efforts as required to keep the terminal switches operational. TVSR I started in FY89, and TVSR II started in FY95. Voice switches managed by the TVSR program include RDVS I, RDVS II, RDVS IIA, ETVS, STVS, and IVSR. RDVS, ETVS, and STVS were deployed in the 1990's and early to mid- 2000's. IVSR began deploying in 2005 and the IVSR contract with Frequentis, USA is now the only voice switch procurement vehicle available. The TVSR program office also manages Voice Switch By-Pass (VSBP) efforts; VSBP provides backup capabilities at terminal facilities

Target: Legacy Voice Switch Sustainment (LVSS) - Terminal Voice Switches (TVSS) Sustainment

Enhanced Terminal Voice Switch (ETVS) Power Supply Replacement - Complete installation at 80th Site.

Initiative: NextGen Distance Measuring Equipment (DME) Program

Performance Based Navigation (PBN) uses Area Navigation (RNAV) and Required Navigation Performance (RNP) to improve access and flexibility in the National Airspace System (NAS) with the goal of providing the most direct and efficient aircraft routes possible. This begins with leaving the departure runway to arriving at the destination runway while also enabling right-sizing of conventional procedures and navigation infrastructure. PBN defines the requirements for routes and procedures that enable aircraft to navigate with greater precision and accuracy. It provides a basis for designing and implementing new flight paths, redesigning airspace, and providing safe obstacle clearance. In support of PBN, the objective of NextGen DME is to provide a resilient network to continue PBN operations during a Global Navigation Satellite System (GNSS) disruption.

Activity: NextGen Distance Measuring Equipment (DME) Program

For FY24 the NextGen Program will complete activities for successful installation of critical Distance Measuring Equipment (DME) Systems and fill coverage gaps to enable DME Area Navigation (RNAV) aircraft.

Target: NextGen Distance Measuring Equipment (DME) Program

Complete installation of three (3) Distance Measuring Equipment (DME) systems.

Initiative: Financial Services Directorate - ATO Ops and F&E Budget Integration

The ATO OPS and F&E Integration team will manage the budget of ATO Facilities and Equipment Funding (F&E) Activities 1-4, A5, Reimbursable, and Franchise appropriations with the Operations budget. They will evaluate program requirements to determine and forecast fiscal resource needs for assigned appropriations across the ATO Service Units for critical funding activities for the procurement, modernization and operations of ATO facilities and equipment.

Activity: Automation - Develop Financial Dashboards in support of ATO Ops and F&E Integration

Develop dedicated ATO and Service Unit Financial Dashboards to share information on Ops and F&E integrated funding.

Target: Provide Funding Analysis

Incorporate ATO F&E financial data into AJG-R dashboards to reflect complete acquisition and operations lifecycle. Adjust dashboard views and content based on customer input and to meet ATO's reporting requirements.

Target: Determine Automation Requirements

Enhance tools to improve and automate F&E spend plans, including: Determine requirements for automating F&E spend plans; Meet with stakeholders; Identify existing tools or alternate solutions.

Initiative: Visual NavAids - Approach Lighting System Safety Enhancement - Landing and Lighting Portfolio

The Approach Lighting System Safety Enhancement Program upgrades approach lighting systems built before 1975. The project upgrades the equipment to current standards and reduces the potential severity of take-off and landing accidents by replacing rigid structures with lightweight and low-impact resistant structures that collapse or break apart upon impact. The entire approach lighting system is replaced when rigid structures are replaced. The High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) provides visual information on whether the pilot is aligned with the runway centerline, the aircraft's height above the runway plane, roll guidance, and horizontal reference for Category II and III Precision Approaches. The MALSR provides visual information on runway alignment, height perception, roll guidance, horizontal references for Category I Precision, and Special Authorization Category II Approaches.

Activity: Visual NavAids - Approach Lighting System Safety Enhancement - Landing and Lighting Portfolio

For FY24 the Approach Lighting System Safety Enhancement Program will complete activities to procure Light-Emitting Diode (LED) Lamps and install ALS systems.

Target: Visual Navigational Aids (NavAids)- Approach Lighting System (ALS) Safety Enhancement - Landing and Lighting Portfolio

Install one (1) Approach Lighting System (ALS).

Agile Services across the NAS

Develop a comprehensive and agile set of requirements and processes to integrate traditional and emerging users of the National Aerospace System and to evaluate appropriate infrastructure and operational needs of any given facility or airspace.

Initiative: More Agile Structure of Services and Service Levels across the NAS (MASS)

Establish and leverage a Framework for a More Agile Structure of Services and Service Levels across the NAS.

Activity: Using initial MASS framework to assess potential service level changes and impacts to real world situations

Collaborate with stakeholders to identify service level changes and impacts related to real world situations.

Target: Advanced Air Mobility (AAM) Integration into the National Airspace System (NAS)

Demonstrate the AAM framework that supports the emerging aviation ecosystem to leverage new aircraft and an array of innovative technologies; to provide the opportunity for more efficient, more sustainable and more equitable options for transportation across the NAS.

Initiative: Integration of UAS Operations into the NAS

Integrate new entrants including Unmanned Aircraft System (UAS) and Advanced Air Mobility (AAM) operations into the National Airspace System (NAS) without introducing unacceptable levels of risk, while providing a secure and more efficient system.

Activity: Drive Integration of UAS and AAM

Provide input during identification and development of updated rules, policies, standards, and procedures regarding UAS/AAM operations in the NAS. Enhance awareness of new activities through multi-platform efforts informing concerned/affected parties of changes to policies related to UAS/AAM.

Target: Training needs related to UAS

Assess four (4) UAS training products to determine the modifications needed by December 31, 2023. Based on the UAS training assessment, assist in the development of updated training requirements for ATC personnel. Provide training modifications/changes requirements via the training change process.

Target: Safety Risk Management (SRM) Support

Deliver recommendations to UAS Leadership Team (ULT) Executive Group for completing updates to air traffic procedures in support of the ATO UAM Corporate Plan and the DOT Innovate 28 Integration Strategy.

Initiative: AJV - Airspace Modernization

The goals of Airspace Modernization include using new technologies and procedures to increase the safety, efficiency, capacity, access, flexibility, predictability, and resilience of the NAS while reducing the environmental impact of aviation.

Activity: IFPA Sustainment 3

Instrument Flight Procedures Automation (IFPA) Sustainment 3 will perform software enhancements to continue to automate current manual processes related to IFP design and documentation, thus reducing time for development and improving data quality. Additionally, government furnished equipment (GFE) no longer under warranty will be replaced to maintain operational efficiency. Finally, IFPA will redesign the architecture of its current server environment to move to the FAA cloud in an effort to take advantage of improved capacity, ease of maintenance, and compliance with the federal initiative for reducing the need of data centers.

Target: IFPA Sustainment 3: TERPS Laptop Deployment

Deploy all TERPS laptops to Aeronautical Information (AJV-A) specialists.

Target: IFPA Sustainment 3: TARGETS RNAV Copter Release 2

IFPA Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) RNAV Copter Release 2 software deployment is complete once Priority 1/ Priority 2 Discrepancy Reports (DRs) completion or Program Trouble Reports (PTRs) have been fixed and 80% of the users have been trained. Release will include design capabilities for Performance Based Navigation (PBN) Approach helicopter Instrument Flight Procedures (IFPs).

Activity: Established on Required Navigation Performance (RNP/EoR Concept)

The use of instrument approaches with Radius-to-Fix (RF) legs to have aircraft join the final approach course is becoming increasingly common throughout the NAS.

Target: Establish a rollout plan

Establish a potential rollout plan for additional Established on Required Navigation Performance (EoR) implementations.

Initiative: AJW-1 Operations Support

Provide the support structure, methodology, tools, procedures, performance monitoring and assurance necessary for the proper operation and maintenance of the National Airspace System and the Technical Operations Service Unit.

Activity: AJW-14 Surveillance & Weather Group

Implementation of modifications, tech refreshes, software releases, and sub-systems replacements.

Target: National Test Equipment Program M17.01-02

Purchase and delivery of 200 pieces of Test Equipment.

Initiative: AJW-2 Facilities and Engineering Services

The Facilities and Engineering Services directorate is a part of the Air Traffic Organization's Technical Operations service unit and is responsible for the safe and effective lifecycle management of the facilities infrastructure of the National Airspace System (NAS).

Activity: ATCT / TRACON Modernization (F01.01-00 / F35.06-01)

ATCT/TRACON facilities will be modernized to address operational and safety issues, including improving the visibility of the entire airport surface from the cab, improving accessibility, removing hazardous materials and upgrading structures to meet current seismic standards. Facility improvements must be completed with minimal impact on existing operations.

Target: ATCT / TRACON Sustainment

Complete 40 improvement projects.

Target: ATCT / TRACON Replacement

Complete two (2) designs.

Activity: ARTCC Modernization (F06.01-00 / F35.02-01 / F35.03-01)

Multi-year facility modernization and sustainment program that addresses physical plant requirements for the FAA's 21 ARTCCs as well as the Combined Control Facilities (CCF) at San Juan and Guam. These facilities were originally constructed approximately 60 years ago and have expanded in phases since then. Much of the plant equipment within these buildings has exceeded its life expectancy and must be replaced. This program replaces obsolete equipment and provides an efficient, reliable, and safe work environment for En Route air traffic control operations.

Target: ARTCC Modernization

Complete sixty (60) Major Modernization, Mission Critical, and Local Sustainment Projects inclusive of Capital Investment Plans (CIP's): F06.01-00, F22.01-01, F34.01-01, F35.02-01, and F35.17-01.

Activity: NAS Power Systems Repair and Replace (F11.01-02 / F35.13-01)

The Power program will replace, refurbish, and renew components of existing power systems and cable infrastructure when necessary to maintain and improve the overall electrical power quality, reliability, and availability. The Power program is critical to both maintaining and increasing NAS capacity by improving the quality, reliability, and availability of electrical power provided to NAS electrical communication, navigation, and surveillance equipment.

Target: Overall Power Systems Repair and Replace Projects

Sustain existing NAS power systems by completing 55 projects.

Target: Battery Systems Replacement

Sustain existing NAS power systems by completing 80 battery replacement projects

Activity: FAA Unstaffed Infrastructure Sustainment (F12.00-00 / F35.09-01)

The Unstaffed Infrastructure Sustainment (UIS) program supports NAS structures and equipment to ensure reliable delivery of air traffic control services and capabilities from the 36,293 unstaffed facilities within the NAS.

Target: FAA Unstaffed Infrastructure Sustainment

Complete a combined total of 80 Ops, F&E, and BIL funded unstaffed infrastructure sustainment projects

Activity: Fuel Storage Tanks (F13.01-00 / F35.08-01)

Conduct Replacement, Modernization, and Upgrades of the NAS Fuel Storage Tank Portfolio. Enhance operational readiness, attain regulatory compliance, and conform to life-cycle management goals for fuel storage tank (FST) systems at national airspace system (NAS) facilities.

Target: Fuel Storage Tanks

Replace, modernize, or upgrade 35 NAS storage tank systems selected in accordance with FST program and ATC Facilities' prioritization processes.

Activity: Environmental Cleanup (HAZMAT) (F13.02-00 / F35.14-01)

Perform environmental remediation activities at active and historic FAA and neighboring properties where environmental impacts occurred from FAA operations.

Target: Environmental Cleanup

Conduct environmental remediation actions that result in a reduction of 40 identified Areas of Concern.

Activity: NAS Facilities OSHA & Environmental Standards Compliance Environmental and Occupational Safety & Health (EOSH) (F13.03-00 / F35.07-01)

Design and implement engineered solutions to mitigate identified employee safety, employee health, and environmental impact risks.

Target: Mitigate Fall Hazard Conditions

Mitigate fall hazard conditions at 50 facilities.

Target: Fire Systems Electrical Generators

Replace outdated Emergency Generators for the stairwell pressurization system with UPS at three (3) ATCT's.

Activity: Energy Cost Savings Management and Compliance (F13.04-02 / F35.12-01)

Facilitate ATO-wide reductions of energy and water use by adopting best industry practices and integration of cost-effective, energy-efficient technologies.

Target: Energy Cost Savings Management and Compliance

Address legislative mandates and reduce ATO energy consumption and greenhouse gas (GHG) emissions by completing one (1) advanced meter installations and four (4) energy and water improvement projects.

Activity: FAA Employee Housing and Life Safety Shelter Systems (F20.01-01 / F35.10-01)

Repair, replace, install housing and life safety shelters.

Target: Employee Housing and Life Safety Shelters

Complete two (2) housing program projects.

Activity: Facility Security Risk Management (F24.02-01 / F35.15-01)

The Facility Security Risk Management (FSRM) program provides risk mitigation at FAA staffed facilities, such as centers, towers, and terminal radar approach control facilities. The program provides an integrated security system that includes access control, surveillance, x-ray machines, metal detection, and intrusion detection. Upgrades include those for guardhouses, visitor parking, fencing, perimeter hardening, window blast protection, and lighting.

Target: FSRM: Complete Technical Refresh Upgrades

Complete technical refresh modernization at 1 site. (Per FAA Order 1600.69)

Activity: Real Property Disposition Program (F26.01-01 / F35.11-01)

Plan and implement real property infrastructure dispositions and site restorations at legacy sites that were operational before April 1, 1996 and are now decommissioned and have no supporting program office. This includes infrastructure dispositions and real property site restorations, hazardous materials abatement and/or remediation, and disposition, termination phase one Environmental Due Diligence Audits, and cultural historic preservation and natural resource protection locations.

Target: Real Property Disposition Program

Complete 30 real property disposition projects.

Activity: Mobile Asset Sustainment Program (MASP) (F31.01-01 / F35.06-01)

The Mobile Asset Sustainment Program (MASP) provides continuity of operations during facility outages and provides mobile asset support during facility modernization efforts. Mobile Assets provides for the continuity of restoral of air traffic control when an air traffic control tower (ATCT) or other NAS system is out of service due to a disaster, extensive repair, modernization, or upgrade.

Target: Mobile Asset Fabrication

Complete fabrication of 2 Mobile Assets

Activity: Long-Range Radars Sustainment (S04.02-03 / F35.04-01)

The Long-Range Radar (LRR) Infrastructure Upgrades/Sustainment program modernizes and upgrades the radar facilities that provide aircraft position information to FAA's en route control centers and other users. As facilities reach the end of designed service life they require renovation and upgrades to maintain required level of service. The scope of the LRR Infrastructure Improvements Program includes renovation and upgrades of HVAC system, electrical system, building, tower structure, and facility ground and access.

Target: Upgrade and sustain long-range radars

Complete five (5) long range radar sustainment projects.

Initiative: Proactive Security and Safety

Protect the United States and its interests from threats and major incidents involving the air domain, both domestically and abroad, and mitigate impacts on the safety and efficiency of the NAS by providing world-class threat monitoring and response, including significant incident responses to natural disasters and other emergencies.

Activity: Strategic Operations Security

Manage the Strategic Operations Security role in ATM Security measures through development and coordination of procedures, plans, programs, exercises, and policies needed to effectively carry out the ATO's efforts in the national defense, homeland security, law enforcement, and disaster response arena while mitigating safety and efficiency impacts on the NAS. Lead ATO's efforts on Continuity of Operations, disaster response and other emergency operations.

Target: Significant Incident Management Operations and Security Policy, Plans, and Procedures

Deliver effective enterprise-level incident management services enabling unified ATO responses to natural disasters and other significant incidents involving the NAS and the FAA's Air Navigation Services. Also, develop and sustain Air Traffic Management security plans and procedures with other stakeholders within the FAA, interagency security partners and with other international and private entities; protect sensitive flight data and the Operations Security (OPSEC) of sensitive air missions; lead interagency and international collaboration on ATO security initiatives; and advance the ATO's security and emergency operations automation tool suite.

Initiative: Comprehensive Contingency Planning

Strengthen the safety, security, and efficiency of airspace systems through contingency planning and exercises.

Activity: Improve ATO Operational Contingency Plans and Response to Significant Events

Continue Operational Contingency Plan rebuild efforts for all NAS facilities and provide guidance material for developing policy compliant OCPs.

Target: Operational Contingency Plan Reviews

Conduct reviews of and report on Facility Operational Contingency Plans (OCP) and Enterprise System contingency capabilities identifying strengths and gaps. Develop guidance material to support development of a JO 1900.47G compliant contingency plan.

Activity: FAA Order JO 1900.47 Publication with accompanying Communications

Publish the policy revision (1900.47G) to improve operational readiness across the NAS by defining more roles and responsibilities, and requirements for contingency planning work and deliverables. Develop and conduct webinars focused on policy requirements and implementation.

Target: Publish the FAA JO 1900.47G

Publish the FAA JO 1900.47G and develop material for JO 1900.47G webinars that outline policy requirements and intent.

Activity: ATO Operational Contingency Capability Assessments

Develop method for assessing the operational capabilities during a disruption for each facility type.

Target: TRACON/ARTCC Contingency Capability Assessments

Develop and test the method of assessing the operational contingency capabilities of a TRACON and ARTCC during a disruption.

Activity: Automated Contingency Tool (ACT2) Compliance with JO 1900.47G

Field the enhanced Automated Contingency Tool (ACT2) that complies with JO 1900.47G internally and provide guidance material on its utilization.

Target: Enhanced Automated Contingency Tool (ACT2)

Field the enhanced Automated Contingency Tool (ACT2), which will improve Operational Contingency Plan documentation, event reporting, certifications, exercises, collaboration and information sharing, and develop material for webinars that walk the user through the enhanced ACT2.

Performance of the National Aerospace System

Develop and implement a comprehensive roadmap to guide the evolution of the National Aerospace System as the foremost data-driven Air Navigation Service Provider (ANSP) in the world.

Initiative: Improve Reporting on Operational Performance of the NAS

The overall goal of this initiative is to help move the FAA's operational performance data reporting towards better post-operational performance analysis, near-real-time data reporting, and decision-supported predictive analytics.

Activity: Develop Integration Plan: AJV and AJR

Develop Integration Plan: AJV and AJR will collaboratively develop a plan to integrate data analytical efforts supporting airspace modernization and increasing NAS efficiency.

Target: Identify gaps between available operational data and AJV-S required data

AJV and AJR will work together to identify relevant AJR data resources and identify any gaps between available operational data and AJV-S required data.

Target: AJV and AJR to identify relevant AJR data resources and gaps

Identify AJV's Strategy and Airspace Modernization analytical needs that can be supported directly from AJR data assets – AJV and AJR will work together to identify relevant AJR data resources and identify any gaps.

Target: Develop a data analytics integration plan – AJV and AJR

Collaborate with AJR to develop a data analytics integration plan – AJV and AJR will work together to develop a plan that addresses identified gaps, needed governance, and any redundancies.

Activity: AJR and AJI collaboration

AJR and AJI collaborate to identify and curate material to be included in a quarterly operational and safety trend report.

Target: AJR/AJI operational and safety trends quarterly report

Identify and curate operational trend data to be included in a joint AJR/AJI operational and safety trends quarterly report.

Target: AJR/AJI operational and safety trends quarterly report

Identify and curate safety trend data to be included in a joint AJR/AJI operational and safety trends quarterly report.

Initiative: Sustain current NAS operations and examine opportunities to decommission excess or redundant infrastructure

The agency will continue to provide safe and efficient air navigation services across the NAS, while simultaneously ensuring our infrastructure is balanced for the introduction of new NAS modernization tools primarily described in the agency's NextGen programs. This effort will seek to assess what legacy systems can be decommissioned as the NAS transitions to more efficient emerging technologies. Success in this critical effort will rely on continuous outreach with our customers and stakeholders.

Activity: VOR MON – VOR Discontinuances

The VOR Minimum Operational Network (MON) program supports the National Airspace System (NAS) transition from VOR navigation to Performance Based Navigation (PBN) consistent with NAS modernization goals. This program will expand VOR coverage by publishing new VOR Standard Service Volumes (SSVs) in the contiguous United States (CONUS) to function as a backup navigation system in the event of an unplanned outage of the Global Positioning System (GPS). As a result, some VORs can be discontinued.

Target: VOR Minimum Operational Network (MON) – VOR Discontinuances

Discontinue fifteen (15) Very High Frequency Omni-directional Ranges (VORs).

Activity: Outreach with aviation industry partners is required to better inform agency efforts and ensure customer acceptance of decommissioning and divestment actions necessary to achieve infrastructure balance

Leverage existing or ad hoc venues to engage with NAS customers to ensure agency streamlining efforts achieve airspace efficiencies by reducing reliance on and divesting from legacy NAS systems and procedures and moving to a reliance on a more modernized NAS-based environment.

Target: Removal of Instrument Flight Procedures (IFPs)

Identify opportunities for the removal of existing and infrequently used Instrument Flight Procedures (IFPs). Provide a report of IFPs recommended for cancellation.

Initiative: Air Traffic Services – Operational Planning and Integration

Collaborate across ATO service units to resolve field concerns and provide subject matter expertise as necessary.

Activity: Nation-wide Deployment of Consolidated Wake Turbulence (CWT)

Implement Wake Recategorization at planned sites by the end of Fiscal Year (FY) 2023. This will be accomplished in collaboration with AJV-P, AJM-2 and ANG-C.

Target: Expand Use of Consolidated Wake Turbulence (CWT)

Implement Consolidated Wake Turbulence at two geographic districts.

Initiative: Consolidation and Realignment of FAA Services and Facilities

Examine existing services to implement a rebalancing of our operations. Reduce the infrastructure footprint by consolidating and modernizing facilities.

Activity: Establish Consolidation Requirements and Schedule

Collaborating with AJW-2 to define the requirements in a Requirements Document Workbook (RDWB) for consolidating one TRACON (S804) and establish a transition schedule for realigning the Waterloo TRACON into the Des Moines TRACON.

Target: Establish the Requirements and a Transition Schedule for the Realignment of the Waterloo TRACON into the Des Moines TRACON

Define the requirements to relocate the Waterloo TRACON into the Des Moines TRACON. Establish a Transition Schedule for the realignment of the Waterloo TRACON into the Des Moines TRACON.

Initiative: Air Traffic Services Business Analytics and Operational Implementation

AJT Business Analytics supports Air Traffic Services leadership through the development and implementation of Business Utilization and Resource Standardization Tools (BURST) and Air Traffic Operations Management System (ATOMS), to standardize processes and conduct data analysis. Implementation of standardized processes and tools will provide Air Traffic Services the required data and analytical support to make informed data driven decisions. Participate in the completion of approved activities to address the top five (5) identified trending safety issues in the NAS and the development/approval of activities to be completed in future fiscal years.

Activity: Data driven decisions: Provide AJT field management with Business Analysis Tool Suite (BATS) for Leave Negotiations

Effectively managing Agency resources by providing leadership workforce with training and tools for successful decision making.

Target: Obtain LY24 Final BATS Submissions, Provide LY24 Introduction to BATS and BATS Refresher Training and Obtain LY25 Initial BATS Submissions

Obtain and review final LY24 BATS submission for at least 85% of facilities by February 29, 2024. Develop, communicate and implement BATS training to AJT workforce and deliver initial and refresher training by August 31, 2024. Obtain initial LY25 BATS submission for at least 85% of facilities.

Activity: Implement ATOMS

Provide a platform/tool capable of improving controller scheduling and work assignment tracking, and capable of interfacing with other ATO tools. Replaces CRU-Art and integrates with Web Scheduler (WMT).

Target: Implement ATOMS

Initiate training and implementation for approximately 120 ATC facilities and develop a timeline for the remainder of the Release 1 and 2 facilities.

Activity: Improved process to request field resources in support of programmatic needs

Leverage technology to create an improved process to request field resources in support of high priority programmatic needs.

Target: PMT Post-Deployment and Maintenance Activity

Prioritize, test, and deploy Jira tickets to address field issues.

Activity: AJT Participation in Top 5 Implementation

Participate in the completion of approved activities to address the top five (5) identified trending safety issues in the NAS and the development/approval of activities to be completed in future fiscal years.

Target: AJT-2 Participation in Top 5 Implementation

Complete, as applicable, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS. Develop and implement initiatives to address safety issues in the NAS.

Target: AJT-W Participation in Top 5 Implementation

Complete, as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

Target: AJT-E Participation in Top 5 Implementation

Complete, as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

Target: AJT-C Participation in Top 5 Implementation

Complete, as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

Initiative: National Cloud Integration Service (NCIS)

Program Management Organization (PMO) Cloud Services Development

Activity: National Cloud Integration Service (NCIS)

Mission Essential Cloud Creation and Development

Target: National Cloud Integration Services (NCIS) -Cloud National Test Bed (CNTB) Air Traffic Organization (ATO)

Receive an authority to operate for the Cloud National Test Bed (CNTB) from Air Traffic Organization (ATO) Cybersecurity Group (ACG).

Initiative: SWIM Segment 2C

Develop Final Migration Plan for SWIM Cloud Distribution Services (SCDS).

Activity: SWIM Segment 2C

Develop Final Migration Plan for SWIM Cloud Distribution Services (SCDS).

Target: Identity and Access Management (IAM)-Development Testing of Load Balancer replacement-Segment 2C

Completion of Development Testing of Load Balancer replacement.

Target: System Wide Information Management (SWIM)-Segment 2C

Complete System Wide Information Management (SWIM) Terminal Data Distribution System (STDDS) Release 6.1 Key Site Deployment.

Initiative: Traffic Flow Management System (TFMS) Sustainment 3

The TFMS Sustainment 3 program is focused on sustainment to keep the current TFMS system functional until it can be replaced by Flow Management Data and Services (FMDS). Included under this investment is a targeted hardware replacement of end of life/end of service equipment at the TFMS Processing Center (TPC) and re-hosting web applications onto a different platform to free capacity of the TFMS Core.

Activity: Traffic Flow Management System (TFMS) Sustainment 3 Implementation (S3), A05.01-17

Traffic Flow Management System (TFMS) Sustainment 3 Implementation (S3), A05.01-17

Target: Traffic Flow Management System (TFMS) Sustainment 3 Implementation (S3) - Flow Management Web Services (FMWS) Design Checkpoint.

Traffic Flow Management System (TFMS) Sustainment 3 Implementation (S3) - Flow Management Web Services (FMWS) Design Checkpoint.

Target: Traffic Flow Management System (TFMS) Sustainment 3 Implementation (S3) - TFMS Sustainment Release 1 Available for Operations.

Traffic Flow Management System (TFMS) Sustainment 3 Implementation (S3) - TFMS Sustainment Release 1 Available for Operations.

Initiative: Oceanic Safety Monitoring (OSM)

Implement recommendations from the Oceanic Safety Monitoring (OSM) project gap analysis related to developing oceanic tools and training for QA/QC/Safety Investigation and Response Group (SIRG).

Activity: Oceanic Safety Monitoring (OSM)

Implement recommendations from the Oceanic Safety Monitoring (OSM) project gap analysis related to developing oceanic tools and training for QA/QC/Safety Investigation and Response Group (SIRG).

Target: Familiarization of QA/QC personnel with ATOP

Develop means for providing and requiring consistent training and familiarization of QA/QC personnel with how ATOP is used for oceanic ATC.

Initiative: Time Based Flow Management (TBFM)

TBFM uses Time Based Metering (TBM) system uses time-based metering to better utilize NAS capacity by improving traffic flow management of aircraft approaching and departing congested airspace and airports. TBFM has been deployed and is operational at the 20 Air Route Traffic Control Centers (ARTCCs) and adapted for most major airports served by those centers. TBFM enhances air traffic operations, by reducing delays and increasing efficiency of airline operations. Enhancements to the TBFM system directly supports NextGen Portfolio concepts.. TBFM Sustainment 1 will replace existing hardware with new hardware as well as some Commercial Off-the-Shelf Software (COTS) in the FY 2023-2027 timeframe. The current hardware began to reach its end of service and maintenance in 2017. The Investment Analysis Readiness Decision (IARD) was achieved in June 2020. Prime Contractor Proposal for Sustainment 1 was initially received in FY 2021 and required updates due to Red Hat Enterprise Linux (RHEL) changes. Integration of the new hardware and upgraded software of the TBFM system with Commercial off the Shelf (COTS) and Free and Open Source Software (FOSS) will meet security vulnerabilities and maintainability requirements. Additionally, the TBFM Sustainment 1 system will support the sustainment and maintenance of the TBFM operational system in the NAS. The TBFM investments are part of the Trajectory Based Operations (TBO) initiative which uses an integrated and holistic implementation approach of the capabilities.

Activity: Time Based Flow Management (TBFM) Sustainment 1 (S1), G02A.01-11

Time Based Flow Management (TBFM) Sustainment 1 (S1), G02A.01-11

Target: Time Based Flow Management (TBFM) Sustainment 1 (S1) - Complete WJHTC Tech Refresh lab install on one test string.

Time Based Flow Management (TBFM) Sustainment 1 (S1) - Complete WJHTC Tech Refresh lab install on one test string.

Initiative: Terminal Doppler Weather Radar (TDWR)

The Terminal Doppler Weather Radar (TDWR) is used by ATC to increase the safety of the NAS. TDWRs provide vital information and warnings regarding hazardous windshear conditions, precipitation, gust fronts, and microbursts to air traffic controllers managing arriving and departing flights in the terminal area. There are 45 commissioned TDWR systems protecting 46 high-capacity airports throughout the United States and Puerto Rico that are prone to wind shear events. Two additional TDWR systems at the FAA's Mike Monroney Aeronautical Center in Oklahoma City provide engineering support and training. There have been no wind shear accidents at any TDWR-protected airport since its TDWR was commissioned. TDWR weather data is transmitted to FAA automation systems and to 34 National Weather Service forecast offices. The current system has been in service since 1994 and requires updating due to equipment obsolescence issues. Reduce Aviation and Commercial Space Transportation-Related Fatalities and Serious Injuries in Commercial and General Aviation.

Activity: Terminal Doppler Weather Radar (TDWR) Sustainment 2

Terminal Doppler Weather Radar (TDWR) Sustainment 2

Target: Terminal Doppler Weather Radar (TDWR) Sustainment 2

Complete Installation of the Direct Digital Connect (DDC) Replacement Modification Kits

Activity: Terminal Doppler Weather Radar (TDWR) Sustainment 3

Terminal Doppler Weather Radar (TDWR) Sustainment 3

Target: Terminal Doppler Weather Radar (TDWR) Sustain 3 - Weather Sensors Tech Refresh Program (WSTRP)

Procure Prototype and First Article Hardware for Time Division Multiplexing to Internet Protocol (TDM-to-IP) Conversion

Initiative: SWIM Segment 2D

SWIM Segment 2D will transition all current SWIM Cloud Distribution Service (SCDS) and Enhanced SWIM Cloud Service (ESCS) capabilities to FENS.

Activity: SWIM Segment 2D

SWIM Segment 2D will transition all current SWIM Cloud Distribution Service (SCDS) and Enhanced SWIM Cloud Service (ESCS) capabilities to FENS.

Target: System Wide Information Management (SWIM) Segment 2D On Premise Solution Design Review

Complete and approve Information Management Services (IMS) On Premise Solution Review.

Initiative: Advanced Technologies and Oceanic Procedures (ATOP)

The ATOP program replaced oceanic air traffic control systems, updated procedures, and modernized the Oakland, New York, and Anchorage Air Route Traffic Control Centers (ARTCCs), which house these oceanic automation systems. A support system was also installed at the William J. Hughes Technical Center (WJHTC). ATOP fully integrates flight data processing, detects conflicts between aircraft, provides data link and surveillance capabilities, and automates the previous manual processes. A second technology refresh for the automation system was completed in 2020 for all three operational sites and the WJHTC labs. This technology refresh activity increased system performance, capacity, and usability. The ATOP program continued to deliver safety and efficiency enhancements through FY 2025 for evolutionary improvements to the ATOP system.

Activity: Advanced Technologies and Oceanic Procedures (ATOP) E1, A10.03-02

The Advanced Technologies and Oceanic Procedures (ATOP) - Enhancement 1 program provides 5 large-scale capabilities to address the operational shortfalls of the current oceanic system. The program evolved the capabilities from the requirements validated by the Air Traffic Organization Air Traffic Services Office.

Target: Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release T30 Available for Operational Use.

Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release T30 Available for Operational Use.

Initiative: Standard Terminal Automation Replacement System

The Standard Terminal Automation Replacement System (STARS) is a joint Department of Defense and Department of Transportation (FAA) program to modernize terminal air traffic control automation systems. Air traffic controllers use the STARS automation and displays to ensure the safe separation of aircraft (both military and civilian) within the nation's airspace. STARS is expandable to accommodate future air traffic growth and new hardware. Planning for technology refreshment and sustainment enables identification and qualification of affected components before they become inoperable due to obsolescence. For example, the processor currently used in STARS is no longer available from the manufacturer. The consequences of obsolescence have collateral implications in the areas of engineering, training, maintenance and many other disciplines. STARS sustainment is needed to address changes in hardware and to address changes in software and to support the STARS upgrades needed for enhanced performance and capacity in support of new capabilities.

Activity: Standard Terminal Automation Replacement System (STARS) Sustainment 3, A04.01-05

Standard Terminal Automation Replacement System (STARS) Sustainment 3, A04.01-05

Target: Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3) - Deliver 380 of 535 racks to FAA terminal facilities.

Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3) - Deliver 380 of 535 racks to FAA terminal facilities.

Initiative: Collaborative Traffic Flow Management

Deliver outstanding traffic flow management in a collaborative environment for our stakeholders and customers.

Activity: Expand Advanced Planning to Surrounding Air Navigation Service Providers (ANSP's), Facilities and Stakeholder

Continue to advance the Plan, Execute, Review, Train, Improve (PERTI) principles by expanding advanced planning to surrounding ANSPs, FAA Facilities and stakeholder organizations.

Target: PERTI – Include surrounding ANSPs in Advanced Planning Processes, Improve Stakeholder Engagement and PERTI Website

Continue to include and expand surrounding ANSPs involvement in the Advanced Planning process. Coordinate monthly with the Stakeholder Engagement Team (SET) on analysis/review activities for potential process improvement. Work with MITRE on development of additional features and improvements to the Direct Channel Complex (DCC) Continuous Planning website to provide enhanced continuous planning operations information to field facilities and stakeholders.

Activity: Global Collaborative Decision Making

Provide leadership to the Global Collaborative Decision Making process. Support a customer-focused, safe, efficient, and affordable air transportation system that is environmentally responsible. Support global understanding and acceptance of the FAA mission, operations, and Air Traffic Organization modernization efforts. Promote global, regional, and cross-border acceptance of U.S. Air Traffic Management technology, procedures and processes. Provides joint government/industry initiative aimed at improving air traffic management through increased information exchange among the various parties in the aviation community through the CDM program, which consists of representatives from government, general aviation, airlines, private industry and academia who are working together to create technological and procedural solutions to traffic flow problems that face the National Airspace System.

Target: Provide Leadership to Collaborative Decision Making (CDM) process and Global Information Exchange

Support the development of flight data exchange agreements between the FAA and other Air Navigation Service Providers (ANSP) through bilateral meetings as requested. Provide provision of operational expertise for Air Traffic Flow Management (ATFM) software development, testing (i.e., Human in the Loop, End to End), Operational Testing & Evaluation (OT&E) simulation and Key Site Acceptance Test (KSAT) through the Collaborative Decision Making (CDM) Executive Committee (EC) process. Conduct CDM sub-team meetings to ensure projects provide efficient and cost-effective improvements to the NAS.

Target: NAS Efficiency

Improve NAS efficiency on initiatives identified by the ATO's Vice-Presidents (Focus Five Efficiency Initiatives) and ad hoc initiatives identified by the Director of System Operations. Collaborate with Air Traffic, NAS Operations, Performance Analysis, Deputy Directors of System Operations, and other internal and external stakeholders to develop mitigations to efficiency short falls in the system in the near term. This initiative should target efficiency goals that can be accomplished within the next year.

Initiative: Integration of New Entrants

Empower new entrants to access and utilize the NAS successfully while efficiently maintaining optimal safety and security.

Activity: Integrate Commercial Space Transportation into the NAS

Safely and efficiently, integrate new types of commercial space operations into the NAS and support the industry activities these operators present. Access and implement a planning and management process that supports improved integration of current space operations, including the strategic vision and collaborative solutions to operational conflicts. Use Traffic Flow Management System time based capabilities to improve efficiency gains.

Target: ATO Space Operations Collaborates with Industry Partners and other Stakeholders to Streamline Mission Planning Process and Define the Metrics of Operators

The ATO will produce recommendations for improving data exchange processes between the FAA, DOD and Launch and Reentry Operations (LROs). The ATO will conduct three Space Operation Committee (SpOC) meetings with industry and Department of Defense partners to understand, evaluate pre-mission planning, international procedures, and data exchange opportunities.

Initiative: Terminal Flight Data Manager (TFDM)

The TFDM program will deliver to tower Air Traffic Controllers (ATC) and FAA traffic managers NextGen decision support capabilities that integrate flight, surface surveillance, and traffic management information. TFDM will provide an approach for the collection, distribution, and update of flight data information in the terminal area and to improve access to information for the safe and efficient control of air traffic. The use of Electronic Flight Data and Strips (EFD/EFS) will allow tower controllers to maintain an integrated view of the air traffic environment, improving situational awareness of airport operations. TFDM decision support capabilities will promote safe and efficient airport operations in managing airport surface traffic sequencing and scheduling. TFDM will automate the manual flight data processes to enable enhanced data sharing between the Tower, the En Route, and Approach Control ATCs, Traffic Flow Management (TFM), and Flight/Airline Operations domains. This eliminates the necessity of physical exchange of flight data, reduces telephone exchange of data between facilities, and reduces manual re-entry of data among multiple ATC systems. This will also facilitate data exchange with aviation partners (airlines and flight operators) to support collaborative decision making. In addition, there are a number of legacy systems that TFDM will replace which would lead to greater efficiency and cost avoidance. The systems included are Advanced Electronic Flight Strips (AEFS), Surface Movement Advisor (SMA), Airport Resource Management Tool (ARMT), Departure Spacing Program (DSP), and Electronic Flight Strip Transfer System (EFSTS). TFDM will deliver multiple NAS benefits; reduced surface delay, taxi time, fuel burn, and reduced CO2 emissions, improved airport utilization during times when demand exceeds capacity, improved shared situational awareness and enhanced safety.

Activity: Terminal Flight Data Manager (TFDM), G06A.03-01

TFDM program will deliver to tower Air Traffic Controllers (ATC) and FAA traffic managers NextGen decision support capabilities that integrate flight, surface surveillance, and traffic management information. TFDM will provide an approach for the collection, distribution, and update of flight data information in the terminal area and to improve access to information for the safe and efficient control of air traffic.

Target: Terminal Flight Data Manager (TFDM) - Build 1 operational at 2 additional sites.

Terminal Flight Data Manager (TFDM) - Build 1 operational at 2 additional sites.

Initiative: Offshore Automation (OA)

The OA program will replace legacy automation systems at the four offshore facilities in Anchorage Air Route Traffic Control Center (ZAN), Honolulu Control Facility (HCF), Guam Combined Center Radar Approach Control (CERAP), and San Juan CERAP with nationally baselines and supported National Airspace System (NAS) standardized automation solutions. The current automation systems include Surveillance Data Processing (SDP) Microprocessor En Route Automated Radar Tracking System (Micro-EARTS) at all four sites, and Flight Data Processing (FDP) systems currently provided by three unique systems: FDP System (FDPS) at Anchorage, Offshore Flight Data Processing System (OFDPS) at HCF with a data feed to Guam; and Miami ARTCC's En Route Automation Modernization (ERAM) connection that uses unique software adaptation to San Juan.

Due to the associated program cost and sustainability concerns related to OFDPS and FDPS, the OA program has taken a phased approach. Phase 1 will include implementation of ERAM at HCF and ZAN. In addition to addressing the sustainability concerns, OA Phase 1 will provide nationally supported NAS standardized platforms that will bring the two facilities into strategic alignment with the Contiguous United States (CONUS) NAS. The benefits of this effort will allow for future Next Generation Air Traffic System (NextGen) development, automation redundancy and resiliency, ease future lifecycle challenges associated with the legacy systems, including reducing the number of automation platforms requiring separate maintenance and training support, and allow for greater workforce flexibility. Phase 2 will replace the terminal sectors and is a separate investment.

Activity: Offshore Automation (OA), A38.01-01

Offshore Automation (OA)

Target: Offshore Automation Phase 1 - Complete Handoff to Test for En Route Automation Modernization (ERAM) release EAG100 Flight Data Processor Structures.

Offshore Automation Phase 1 - Complete Handoff to Test for En Route Automation Modernization (ERAM) release EAG100 Flight Data Processor Structures.

Initiative: Internal Work Initiative: ADS-B NAS Wide Implementation

Air Traffic Control (ATC) surveillance and aircraft separation services are currently provided using primary and secondary surveillance radar systems in the U.S. National Airspace System (NAS). A need to improve the FAA's surveillance capabilities, in the surface, terminal, en route and oceanic airspace, must be balanced with a more efficient and affordable solution to accommodate the projected capacity demands. The Federal Aviation Administration (FAA) determined that Automatic Dependent Surveillance-Broadcast (ADS-B), with Traffic Information Services-Broadcast (TIS-B) and Flight Information Services-Broadcast (FIS-B), is a viable technology solution to meet the challenges of the future. This ability to use the ADS-B technology as a surveillance source is made possible due to advancements in surveillance techniques, satellite-based navigation, avionics, and communication data links.

Activity: Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - Baseline Services Future Segments, G02S.03-06

The Final Investment Decision (FID) for ADS-B BSFS occurred on May 15, 2019. The program plans to sustain baseline services and applications including continuing leased ADS-B services, implementing mitigations for spectrum congestion, and awarding a follow-on ADS-B service contract. The ADS-B system has both airborne and ground-based elements, including an infrastructure to transmit data to pilots as well as ATC facilities across the NAS. Other services provided include Traffic Information Service – Broadcast (TIS-B), Flight Information Service – Broadcast (FIS-B), Automatic Dependent Surveillance - Rebroadcast (ADS-R), and Wide Area Multilateration (WAM). The program will also provide program management to support mitigations against jamming and spoofing, dedicated support for Gulf of Mexico platform owners, and upgrades to automation platforms.

Target: Automatic Dependent Surveillance - Broadcast (ADS-B) Performance Monitor (APM) Software Deployed.

Automatic Dependent Surveillance - Broadcast (ADS-B) Performance Monitor (APM) Software Deployed.

Target: Achieve Airport Surface Surveillance Capability (ASSC) Initial Operational Capability (IOC) at Andrews Air Force Base (ADW).

Achieve Airport Surface Surveillance Capability (ASSC) Initial Operational Capability (IOC) at Andrews Air Force Base (ADW).

Target: Wide Area Multilateration (WAM) Disposition - Achieve Initial Operational Capability (IOC) at last WAM site.

Wide Area Multilateration (WAM) Disposition - Achieve Initial Operational Capability (IOC) at last WAM site.

Target: Deploy Service Availability Prediction Tool (SAPT) Intermediate Version 8.7.

Deploy Service Availability Prediction Tool (SAPT) Intermediate Version 8.7.

Activity: Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - Enhancements, G02S.06-01

The Automatic Dependent Services-Broadcast (ADS-B) Enhancements project is part of the Surveillance and Broadcast Services (SBS) program. It builds on the services and applications provided by the SBS program, as most recently described in the ADS-B Baseline Services Future Segments (BSFS) Business Case Analysis Report (BCAR). The ADS-B Enhancements project has secured funding for improvements to be implemented between fiscal year (FY) 2022 and FY 2026.

The scope of the ADS-B Enhancements project includes three parts:

1. ADS-B Service Expansion
2. Selected Altitude
3. Security Enhancements

Target: Automatic Dependent Surveillance - Broadcast (ADS-B) Enhancements - Achieve FAA Service Volume (SV) design approval for one Alaska SV.

Automatic Dependent Surveillance - Broadcast (ADS-B) Enhancements - Achieve FAA Service Volume (SV) design approval for one Alaska SV.

Target: Automatic Dependent Surveillance - Broadcast (ADS-B) Enhancements - Security Enhancements – Complete Factory Acceptance Testing (FAT).

Automatic Dependent Surveillance - Broadcast (ADS-B) Enhancements - Security Enhancements – Complete Factory Acceptance Testing (FAT).

Initiative: Surveillance Acquisition and Sustainment (SAS) (AJM-41)

The Surveillance Acquisition and Sustainment (SAS) Group will provide programmatic excellence in the acquisition, deployment and sustainment of radar surveillance systems to support safe and efficient air traffic management by the FAA and DoD. In addition, AJM-41 will sustain radar surveillance services by implementing safety, security and technological enhancements to bridge critical system capabilities until replaced or divested; and acquire cooperative radar systems, non-cooperative radar systems and other specialty solutions to sustain radar surveillance capabilities beyond 2035.

Activity: ASR-9 Sustainment 3, S03.01-12

The ASR-9 Sustainment 3 program replaces or upgrades obsolete ASR-9 hardware and software to ensure the continued operation of the radar system. This is an ongoing program that is accomplished in phases to address obsolescence and supportability issues. The Sustainment 3 program will sustain the service life of all 135 ASR-9 systems; 121 operational sites, seven (7) Department of Defense (DoD) sites, and seven (7) support systems. The ASR-9 system is a non-cooperative (primary) surveillance radar that provides aircraft position and weather information to automation systems for air traffic controllers in terminal airspace. The ASR-9 system supports aircraft separation standards, air traffic operational efficiency, and improves safety at congested airports. The ASR-9 also provides data under Memorandum of Agreements with the DoD and Homeland Security, through the Defense Radar Program, and to the Department of Treasury and National Weather Service through separate agreements. The DoD uses ASR-9 surveillance data to monitor and detect non-transponder equipped intruders in terminal airspace. The system was procured in the mid-1980s, fielded between 1989 and 1994, and has significantly exceeded the expected 20-year lifecycle. Future ASR-9 sustainment efforts are dependent upon ongoing supportability assessments to ensure ASR-9s remain operational through their designated lifecycle. The Final Investment Decision (FID) for ASR-9 Sustainment 3 was approved on March 28, 2018. Implementation is planned to begin in CY 2023 and continue through mid CY 2026.

Target: ASR-9 S3 - Complete Data Communications Equipment (DCE) System Test.

ASR-9 S3 - Complete Data Communications Equipment (DCE) System Test.

Target: ASR-9 S3 - Complete Maintenance Display Replacement (MDR) Unit System Test Readiness Review (TRR).

ASR-9 S3 - Complete Maintenance Display Replacement (MDR) Unit System Test Readiness Review (TRR).

Target: ASR-9 S3 - Complete 30 additional PMO Implementation Team Data Communications Equipment (DCE) Modernization Infrastructure System Support Modification (SSM)-ASR9-057 installations.

ASR-9 S3 - Complete 30 additional PMO Implementation Team Data Communications Equipment (DCE) Modernization Infrastructure System Support Modification (SSM)-ASR9-057 installations.

Activity: Solution Implementation for ASR-11 Sustainment 3, S03.02-07

The Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 program will address parts obsolescence, maintenance issues, and current National Air Space (NAS) requirements to ensure continued reliable and cost effective operation of all ASR-11 configurations through their designated lifecycles.

Target: ASR-11 S3 - PARROT key site acceptance and completion of System Support Modification (SSM) requirements.

ASR-11 S3 - PARROT key site acceptance and completion of System Support Modification (SSM) requirements.

Activity: Terminal & En Route Surveillance Technology Refresh Portfolio (TES TRP)

The Terminal and En Route Surveillance (TES) Technology Refresh Portfolio (TRP) is planning for an Investment Analysis Readiness Decision (IARD) in November 2021. The TES TRP will provide required sustainment and maintenance for the following cooperative and non-cooperative surveillance systems to continue their operational use until 2035:

- Cooperative – ATCBI-5, ATCBI-6, Mode-S, MSSR (ASR-11)
- Non-Cooperative – ASR-8, ASR-9, ASR-11

Target: ASR-8 S1 - Complete First Article Kit Evaluation for the ASR-8 Sustainment Radio Frequency (RF) Input Redesign Project.

ASR-8 S1 - Complete First Article Kit Evaluation for the ASR-8 Sustainment Radio Frequency (RF) Input Redesign Project.

Target: ATCBI-6 Sustainment - Windows Control and Monitoring System (WinCMS) Computer - Project Complete.

ATCBI-6 Sustainment - Windows Control and Monitoring System (WinCMS) Computer - Project Complete.

Target: ASR-11 S4 - DoD commences the Primary Surveillance Radar (PSR) Receiver/Processor Replacement Engineering Study.

ASR-11 S4 - DoD commences the Primary Surveillance Radar (PSR) Receiver/Processor Replacement Engineering Study.

Target: Complete First Article Test Readiness Review (TRR) for the ASR-8 Sustainment 24 Volt Preregulator Project.

Complete First Article Test Readiness Review (TRR) for the ASR-8 Sustainment 24 Volt Preregulator Project.

Target: Airport Surveillance Radar Model 9 (ASR-9) Sustainment 4 - Complete Prototype design for the muffin fan fault monitoring panel.

Airport Surveillance Radar Model 9 (ASR-9) Sustainment 4 - Complete Prototype design for the muffin fan fault monitoring panel.

Target: Airport Surveillance Radar Model 9 (ASR-9) Sustainment 4 - Complete Waveguide Pressurization System Monitoring Development Test (DT).

Airport Surveillance Radar Model 9 (ASR-9) Sustainment 4 - Complete Waveguide Pressurization System Monitoring Development Test (DT).

Activity: Mode Select (Mode S) Beacon Replacement System (MSBRS) Phase 1A, S03.01-15

The FAA initiated the MSBRS effort to provide a modern Cooperative Surveillance Radar (CSR) capability with the intent to replace the legacy Mode Select Beacon Sensor System (Mode S) operating in the NAS.

In 1994, the FAA deployed the first fully operational Mode S system. There are 137 operational legacy Mode S sites and 11 support systems in the NAS supporting ATC in the Terminal and En Route domains.

Due to sustainability and parts obsolescence issues with the legacy Mode S systems, the MSBRS provided an alternative sustainment approach to replace, rather than refurbish, the legacy Mode S and other CSR systems. The MSBRS has an updated design that meets current cooperative radar requirements in the NAS Requirements Document. The modern design will reduce frequency congestion in the 1030/1090 MHz band, incorporate modern surveillance interfaces, and comply with cyber security requirements to support FAA NextGen functionality. These modifications are necessary to ensure the supportability and sustainment of the CSR capability. The MSBRS will be installed in existing radar facilities and retain the legacy CSR antenna, encoder, and rotary joint. The FAA will disposition the legacy CSR equipment after commissioning the new MSBRS equipment.

The MSBRS Program has three segments: Phase 1A, Phase 1B, and Phase 2. The JRC approved Phase 1A FID on November 20, 2019, with a contract award in December 2019 to Leidos, who has partnered with the Thales Group. Phase 1A will complete the design, development, and test with authorization for limited system production and includes the In-Service Decision (ISD). The system procurements encompass the acquisition of nine systems, with key-site testing taking place at three operational sites in the NAS in FY23. Phase 1B will procure and deploy a projected 41 MSBRS systems to replace CSRs at legacy Mode S, ATCBI-5, and ATCBI-6M Beacon Only sites. Phase 2 is reserved for additional production systems to replace remaining legacy CSRs.

Target: Mode Select (Mode S) Beacon Replacement System (MSBRS) Phase 1A - Complete In-plant Development Test (IPDT) Regression.

Mode Select (Mode S) Beacon Replacement System (MSBRS) Phase 1A - Complete In-plant Development Test (IPDT) Regression.

Initiative: En Route Automation Modernization (ERAM) Sustainment 3

ERAM provides automation services for the En Route domain at the 20 Continental United States (CONUS) Air Route Traffic Control Centers (ARTCCs). National support and test capabilities for ERAM reside at the William J. Hughes Technical Center (WJHTC). The FAA Academy provides training services for Technical Operations and Air Traffic personnel. Equipment that constitute the ERAM computing platform must be periodically refreshed to sustain critical National Airspace System (NAS) operations. Much of the original ERAM system hardware and equipment has been in service since 2006-2008 and is now obsolete. The ERAM Sustainment 2 (ES2) program (2016-2022) is a multi-year effort addressing high priority ERAM sustainment issues. The ERAM Sustainment 3 (ES3) Program (2019-2026) is the third major technology refreshment investment of the ERAM system.

Activity: En Route Automation Modernization (ERAM) Enhancements 2, G01A.01-08

The ERAM Enhancements 2 (EE2) program provides software enhancements for the en route sector controller team. This multi-year effort improves efficiency and effectiveness of en route sector operations through enhanced trajectory management and improved collaboration between Radar Position (R-Side) and Radar Associate Position (D-Side) controllers. It involves upgrades to flight data management and system support functions. Current automation capabilities are limited in providing the requisite accuracy, consistency, and usability needed during high demand scenarios which can result less efficient use of airspace. The EE2 will develop and implement improvements to en route automation and procedures, building upon existing ERAM capabilities and leveraging previous NextGen pre-implementation activities. Final Investment Decision (FID) was achieved in December 2016. Prime contractor system engineering, software development, and implementation activities are ongoing and per original baseline, were planned to complete in FY 2023; however due to funding adjustments early in the program, a baseline change decision (BCD) occurred in December 2018 with revised program milestones, and the program will now be completed in CY2024. The specific enhancements are listed below and will be deployed as a series of scheduled ERAM releases throughout the program lifecycle. Conflict Probe Enhancements - Improve representation of adherence bounds used to determine the need for computing a new aircraft trajectory, minimize false alerts; International Common Harmonization - Expand the automated coordination of flight data and aircraft control with the Canadian Air Navigation Service Provider (NavCanada); ERAM Adaptation Refinements - Improve the ability of the Air Route Traffic Control Center (ARTCC) support personnel.

Target: En Route Automation Modernization (ERAM) Enhancement 2 (E2) - Complete Operational Evaluation for ERAM software release EAF400 meeting the criteria for progression to the first key site.

En Route Automation Modernization (ERAM) Enhancement 2 (E2) - Complete Operational Evaluation for ERAM software release EAF400 meeting the criteria for progression to the first key site.

Activity: En Route Automation Modernization (ERAM) Sustainment 3, G01A.01-11

The ERAM Sustainment 3 (ES3) Program is the third major technology refreshment investment of the ERAM system. The ERAM Sustainment 3 (ES3) program addresses shortfalls stemming from end-of-service life conditions for several key hardware and software components not covered by the System Enhancement and Technology Refresh (SE&TR) or the ERAM Sustainment 2 (ES2) programs. The mission-critical equipment for En Route air traffic management at the ARTCCs is beyond the operational support life cycle or is at end-of-life status and must be refreshed. Much of the original ERAM system hardware and equipment has been in service since 2006-2008 and is now obsolete. At a high level, shortfalls addressed by this next sustainment program includes both component obsolescence and failures as well as processor capacity limitations shortfalls. The targeted scope of this program includes the ARTCC Operations Backroom, Test and Training Lab (TTL), and Support network, WJHTC support maintenance/production facility and Test Labs, and FAA Academy Labs. Specifically, affected hardware include ERAM Enterprise Storage sub-systems, Application LANs, Servers (processors), Workstations and support side Commercial Off The Shelf (COTS) Applications. The execution of the program is planned from FY 2020 1st quarter through 2026 4th quarter.

Target: En Route Automation Modernization (ERAM) Sustainment 3 (S3) - Complete Technical Operations (Tech Ops) EAF100 Instructor-led Training (ILT).

En Route Automation Modernization (ERAM) Sustainment 3 (S3) - Complete Technical Operations (Tech Ops) EAF100 Instructor-led Training (ILT).

Initiative: Enterprise Information Display System (E-IDS)

The Enterprise Information Display System (E-IDS) will provide an enterprise-level platform that replaces multiple types of Information Display Systems (IDS) in the En Route, Terminal, Traffic Flow and Offshore domains with standard functionality and common hardware/software in a virtualized environment. IDSs are separate from primary displays, and their purpose is to provide Air Traffic Controllers, Front Line Managers, and Traffic Management Coordinators with supplemental but operationally essential information for controlling aircraft. IDSs were introduced in the terminal domain in the 1990's and rely on obsolete technology and interfaces with facility-centric, inefficient data organization, and manual update methods. Access to information through trusted sources varies from facility to facility depending upon the type of IDS model and whether the facility has a direct interface to source data. The Terminal environment includes three distinct systems, each with a different hardware/software configuration: IDS-4, Automated Surface Observing System Controller Equipment-IDS and NAS Information Display System. En Route includes a system called En Route Information Display System that provides non-tactical information to FAA personnel in Air Route Traffic Control Centers (ARTCC). Traffic Flow domain is present in both Terminal and En Route environments consisting of large monitors that display real-time, high-level traffic and Traffic Flow Management information. The Alaska ARTCC has developed its own IDS, the ATC Automated Information Display. In some cases, vendor-supplied information may be the only source available. These limitations make it cumbersome for users to search, retrieve, and display information. It adds additional workload to both controllers who use the systems and data managers who maintain the systems. Multiple types of information retrieval and display systems create inefficient maintenance activities necessary to sustain all system variations.

Activity: Enterprise Information Display System (E-IDS) Phase 1, A03.06-01

Enterprise Information Display System (E-IDS).

Target: Complete Last Major Software Development (Drop 7) for Enterprise Information Display System (E-IDS).

Complete Last Major Software Development (Drop 7) for Enterprise Information Display System (E-IDS).

Target: Complete 2 Risk Reduction Demonstrations (RRDs) - Data Administrator and Air Traffic.

Complete 2 Risk Reduction Demonstrations (RRDs) - Data Administrator and Air Traffic.

Initiative: Surface Surveillance Portfolio Sustain 1 (SSPS)

The Surface Surveillance Portfolio Sustain 1 program has developed a portfolio implementation strategy for the technology refresh of Airport Surface Detection Equipment – Model X (ASDE-X), Airport Surface Surveillance Capability (ASSC), and Runway Status Lights (RWSL) systems and subsystems. The Portfolio consists of two programs – ASDE Sustainment and RWSL Sustainment. The portfolio has 36 projects that address aging systems and sensors obsolescence issues, security compliance, depleting spare parts inventory levels, and necessary technological updates. The ASDE Sustainment Program covers 44 airports and 6 support systems. The RWSL Sustainment Program covers 20 airports and 2 support systems

Activity: Runway Status Lights (RWSL) Sustainment, S11.01-04

The Runway Status Lights (RWSL) Sustainment program will address maintainability and obsolescence issues associated with RWSL. RWSL is a system that provides situational awareness of runway occupancy without interfering with normal airport operations. RWSL systems reduce the number of runway incursions by indicating to pilots and vehicle operations that the aircraft or vehicle would be in conflict with another aircraft or vehicle if it crossed the hold line or began its takeoff. The system integrates runway lighting equipment with ASDE-X and ASSC surface surveillance systems to provide a visual signal to pilots and vehicle operators indicating when it is unsafe to enter, cross, or takeoff from a runway. RWSL systems are currently operational at 20 airports.

Target: Runway Status Lights (RWSL) Sustainment - Install updated Field Lighting System (FLS) equipment at 2 sites.

Runway Status Lights (RWSL) Sustainment - Install updated Field Lighting System (FLS) equipment at 2 sites.

Activity: Airport Surface Detection Equipment (ASDE) Sustainment, S01.05-02

The ASDE Sustainment program will address maintainability and obsolescence issues associated with ASDE-X and ASSC systems. The existing ASDE-X systems at 35 airports and ASSC systems at 8 airports [1] are surface surveillance systems that use radar, multilateration, and Automatic Dependent Surveillance-Broadcast (ADS-B) to track aircraft and vehicles. By improving situational awareness, these systems help air traffic controllers prevent collisions and reduce runway incursions.

Target: Divest the Airport Surface Surveillance Capability (ASSC) multilateration subsystem at 1 site.

Divest the Airport Surface Surveillance Capability (ASSC) multilateration subsystem at 1 site.

Initiative: NAS Voice Recorder (NVR)

The NAS Voice Recorder (NVR) program will replace the aging digital voice recorders with a Commercial Off The Shelf (COTS) product that will resolve end-of-life supportability issues as well as provide improved digital voice recording functionality to meet new validated safety and audit requirements.

Activity: NAS Voice Recorder (NVR)

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Target: NAS Voice Recorder Program (NVRP)

Achieve Initial Operational Capability for two hundred (200) NAS Voice Recorder (NVR) Sites.

Initiative: Enterprise Engineering and Infrastructure Services

Develop Architecture Review Boards packages.

Activity: Enterprise Engineering and Infrastructure Services

Develop Architecture Review Boards packages.

Target: Architecture Review Board (ARB) Meetings

Communications, Information, and Network Programs (CINP) will complete twelve (12) Enterprise Infrastructure Solutions (EIS) Assessments that are a part of the Joint Resources Council (JRC) process.

Initiative: FTI Sustainment

FTI Sustainment

Activity: FTI Sustainment

FTI Sustainment

Target: FAA Telecommunications Infrastructure (FTI) Sustainment 2

Initiate Order for Security/Backbone replacement components in FY24.

Initiative: New York TRACON (N90) Training Implementation

Implement training at New York TRACON (N90).

Activity: Training Programs at N90

Collaborate with AJI and PMO to implement training programs at N90.

Target: Develop curriculum, Monitor and Improve Training

Conduct Technical Training of personnel to build, teach and continuously update New York TRACON's training materials. Continuously monitor the training program, starting with Academy training, and gather feedback that will help derive necessary adjustments to meet the Agency goals.

Initiative: Improved Service Through Advanced Technology

Deliver safe, secure, efficient, flight services and airspace system services by adopting advanced and emerging technologies.

Activity: Plan the future of Flight Service operations in Alaska

Enhance operational effectiveness in Alaska Flight Service to meet user preferences by maximizing processes, people, and information delivery.

Target: Future Flight Service Program (FFSP) Voice Communication System (VCS) Limited Deployment

Transition Complete – The service provider (SP) will conduct a Cutover Procedure Verification prior to deployment verifying correct and adequate procedures are in place to switch from the existing flight service provisioning to the SP's flight service provisioning. Cutover includes data interfaces, air to ground interfaces, and ground to ground interfaces. The pre-flight, flight data, self-assisted, and inflight services, supported by 58 Flight Plan Areas, will be transitioned.

Target: Expand FAA Weather Camera Operations to CONUS

The Weather Camera Program will complete nine site surveys for the Weather Camera Expansion (E1).

Initiative: Data-driven Operational Efficiency

Increase operational efficiency through innovative performance analysis, data management, and system integration.

Activity: DOT Reporting Metrics

Performance Analysis is responsible for several metrics that have required reporting to the Department of Transportation or are tracked as FAA Corporate Goals. These include the Average Daily Capacity (ADC) and NAS On-Time Arrivals metrics.

Target: Average Daily Capacity

Maintain an Average Daily Airport capacity of at least 57,931 arrivals and departures at Core airports.

Target: NAS On-Time Arrivals

Achieve a NAS on-time arrival rate of 88% at Core airports and maintain through FY24.