

# FY 2020 ATO Business Plan



## Safety

Reduce Aviation and Commercial Space Transportation-Related Fatalities and Serious Injuries in Commercial and General Aviation.

### Systemic Safety Approach

Mitigate risks and encourage infrastructure and behavior change by using a data-driven systemic safety approach to identify risks, enhance standards and programs, and evaluate effectiveness.

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#### Initiative: Potential/Emerging Safety Issues

Improve the ability to identify and assess safety risks through advanced analytics.

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#### Activity: Potential/Emerging Safety Issues

Facilitate potential/emerging safety issues through the FAA Safety Issue Identification and Management Process.

#### Target: Potential/Emerging Safety Issues (AJI)

The FAA SMS Committee will facilitate at least three FAA safety risk assessments, with support from the stakeholder FAA Lines of Business, and document the progress of the assessments in the Hazard Identification Risk Management, and Tracking (HIRMT) tool. Specific support request: Attend bi-monthly meetings and comply with FAA Safety Issues Identification Process.

#### Initiative: System Service Reviews (SSR) in support of Hazard Risk Mitigation

Conduct System Service Reviews (SSR) in support of Hazard Risk Mitigation.

#### Activity: AJT-W support of Hazard Risk Mitigation with the completion of System Service Reviews (SSR)

AJT-W will partner with AJW-W in support of Hazard Risk Mitigation with the completion of System Service Reviews.

#### Target: System Service Reviews (SSR)

Conduct joint System Service Reviews (SSR) with Technical Operations for events causing system outages that impact air traffic operations or result in system delays.

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## **Initiative: Aerospace Medicine Safety Information System (AMSIS)**

The Office of Aerospace Medicine (AAM) is responsible for: the medical certification of airmen; the medical clearance of air traffic control specialists; oversight of aviation industry drug and alcohol testing programs; designation, training and oversight of aviation medical examiners; FAA employee substance abuse testing; airmen aviation physiology and survival training and education; the FAA Employee Health Awareness Program; and aerospace medicine and human factors research. These programs are carried out by AAM at FAA Headquarters, the Civil Aerospace Medical Institute, in the regional Aerospace Medicine divisions and at the three Industry Drug Abatement Compliance and Enforcement Centers. AAM has designed, developed and implemented information systems to efficiently process and manage safety, health and research information collected by FAA's regulatory programs. However, to ensure that these systems are maintained and kept up-to-date and/or replaced as necessary, lifecycle funding is needed. AAM requires future systems funding to re-engineer AAM safety program business processes; design and develop new information systems architecture; and to design, procure and deploy next generation information systems. The Aerospace Medicine Safety Information System (AMSIS) Program is designed to support existing systems, technology, and develop replacement systems in the future.

### **Activity: Investment Analysis for Aerospace Medicine Safety Information System, A35.01-01**

Aerospace Medicine Safety Information System (AMSIS) system development activities to support progress toward implementation milestones.

### **Target: Release Aerospace Medicine Safety Information System (AMSIS) Phase 2 Request for Proposal (RFP).**

Release Aerospace Medicine Safety Information System (AMSIS) Phase 2 Request for Proposal (RFP).

### **Target: Complete Aerospace Medicine Safety Information System (AMSIS) Phase 1 Release 1.**

Complete Aerospace Medicine Safety Information System (AMSIS) Phase 1 Release 1.

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## **Initiative: System Approach for Safety Oversight (SASO)**

The SASO Program aligns national system safety standards with International Civil Aviation Organization (ICAO) Safety Management System (SMS) components and internal FAA directives. The program is divided into three stages. SASO Phase I applied SASO standards to all Code of Federal Regulations (14 CFR Part 121) air carrier regulations and demonstrated the benefits of system safety to Flight Standards Service (AFS) and the aviation community. SASO Phase II develops and implements automation software, processes and procedures that enable the AFS workforce to perform their safety/regulatory oversight responsibilities in accordance with SMS guidance and directives. SASO Phase II is divided into two segments: Alpha and Beta. SASO Phase II Alpha is the first segment and covers the years FY 2010 through FY 2015. In this segment the AFS Safety Assurance System (SAS) is implemented fulfilling one of four components of SMS. The SAS functionality developed and launched in this phase will support AFS oversight of the 14 CFR Parts 121 (air carriers), 135 (commuter and on-demand operators) and 145 (repair stations). SASO Phase II Beta is the second segment and covers FY 2014 through FY 2018. During this phase the remaining three components of the AFSs SMS (safety risk management, safety policy, and safety promotion) will be developed and implemented. Additionally, SAS functionality is further developed to accommodate the remaining 14 CFR Parts regulated by AFS. These include, but are not limited to, other air operators, pilot schools and training centers, aviation maintenance technical schools, other certificated operations such as helicopter external load, and agriculture/crop dusting.

### **Activity: Deploy System Approach for Safety Oversight (SASO), A25.02-02**

System Approach for Safety Oversight (SASO) deployment to last production site and prepare for Functional Release 1

#### **Target: System Approach for Safety Oversight (SASO) Phase 3 (P3) - User Acceptance Testing (UAT) Complete.**

System Approach for Safety Oversight (SASO) Phase 3 (P3) - User Acceptance Testing (UAT) Complete.

#### **Target: System Approach for Safety Oversight (SASO) Phase 3 (P3) - Key Site Initial Operational Capability (IOC).**

System Approach for Safety Oversight (SASO) Phase 3 (P3) - Key Site Initial Operational Capability (IOC).

#### **Target: AJM-2 signature on the System Approach for Safety Oversight (SASO) Phase 4 Implementation Strategy and Planning Document (ISPD).**

AJM-2 signature on the System Approach for Safety Oversight (SASO) Phase 4 Implementation Strategy and Planning Document (ISPD).

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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), M08.32-03**

Provide program management support for the OARS program.

#### **Target: Complete Operational Analysis and Reporting System (OARS) Implementation Strategy and Planning Document (ISPD).**

Complete Operational Analysis and Reporting System (OARS) Implementation Strategy and Planning Document (ISPD).

#### **Target: Achieve Operational Analysis and Reporting System (OARS) Source Selection Officer (SSO) decision.**

Achieve Operational Analysis and Reporting System (OARS) Source Selection Officer (SSO) decision.

## **Initiative: Logistics Center Support System (LCSS)**

The Logistics Center Support System (LCSS) is a mission support IT procurement that re-engineers and automates the FAA's logistics management processes. The program modernizes the FAA's supply chain management by replacing the 20-year old Logistics and Inventory System (LIS).

### **Activity: Logistics Center Support System (LCSS), M21.04-01**

Logistics Center Support System (LCSS)

#### **Target: Validate requirements and acceptance criteria for Logistics Center Support System (LCSS) Phase 2 (P2).**

Validate requirements and acceptance criteria for Logistics Center Support System (LCSS) Phase 2 (P2).

#### **Target: Logistics Center Support System (LCSS) Phase 2 (P2) - Complete IFS-to-PRISM interface improvements.**

Logistics Center Support System (LCSS) Phase 2 (P2) - Complete IFS-to-PRISM interface improvements.

#### **Target: Achieve a first pass performance rate of 80% for FY20 Logistics Center Support System (LCSS) Phase 2 (P2) system demos.**

Achieve a first pass performance rate of 80% for FY20 Logistics Center Support System (LCSS) Phase 2 (P2) system demos.

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## **Initiative: Flight Service**

Provide world-class service and value to users of the National Airspace System (NAS), including new entrants. Leverage advanced technologies to safely and efficiently deliver flight services in the contiguous United States (CONUS), Hawaii, Puerto Rico, and Alaska.

### **Activity: Manage CONUS Operations**

Achieve continuity of and efficiency in operations for the Automated Flight Service Station (AFSS) contract for FY20.

#### **Target: AFSS Contract Negotiations**

Complete transition from AFSS contract to Future Flight Service Program (FFSP).

#### **Target: FFSP Quality Assurance Plan**

Implement new quality assurance plan for Future Flight Service Program (FFSP).

#### **Target: RCO Sites**

Complete analysis for reduction of Remote Communication Outlets (RCO), and decommission identified sites.

### **Activity: Manage Alaska Office Operations**

Achieve continuity of and efficiency in operations for Alaska Flight Service in FY20.

#### **Target: Analysis for Alaska Recurrent Training**

Complete analysis and identify efficiencies and improvements for recurrent training for Alaska Flight Service facilities.

#### **Target: Implementation Plan for Alaska Recurrent Training**

Implement plan for recurrent training for Alaska Flight Service operational positions.

#### **Target: FAA Order for ICAO NOTAM**

Complete first draft of ICAO NOTAM FAA Order.

### **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.

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## **Target: Plan for e-Flight Strips**

Approve implementation plan for electronic flight strips at all Alaska Flight Service Stations.

## **Target: Analysis of NOTAM Entries**

Complete analysis for NOTAM entry duties performed by service provider and the feasibility of realigning service to Alaska Flight Service.

## **Target: Recommendations for NOTAM Entries**

Provide recommendation for NOTAM entry solution.

## **Initiative: NAS Operations Group**

Directs the real-time management of the NAS to ensure safe and efficient use of available airspace, equipment, and workforce resources. Responsible for planning, directing, implementing, overseeing, and continuously monitoring all programs related to air traffic control systems used by the FAA at the Air Traffic Control System Command Center (ATCSCC) and throughout the United States. Oversees and manages the establishment of program directives, policies, standards, strategies, plans, quality assessments and management methods to support the operational requirements (current and future) of national and international flight operation while collaborating with aviation stakeholders for the conduct of business.

## **Activity: Oversight and Management of the National Airspace System (NAS)**

ATCSCC mitigates the risks introduced into the NAS by unanticipated and/or substantive increases in traffic, such that the air traffic system can have a reasonable expectation of point-to-point active management of flights and their trajectories. The ATCSCC oversees and manages the NAS to optimize its use, fostering efficient air traffic control and traffic management services to balance capacity and demand. They collaborate and communicate with stakeholders to plan and manage the flow of air traffic to minimize delays and maximize efficiency. They create and/or support strategic and tactical plans by which the Command Center can foster improved NAS safety. The ATCSCC supports national defense activities as well as security initiatives to ensure stakeholders are timely apprised of pending changes.

## **Target: NAS Oversight and Management**

Report findings of NAS performance and report findings to stakeholders and senior management.

## **Activity: Quality Control Operational Review and Analysis**

Review the operation on a daily basis to identify quality control issues that may impact system efficiency. Analyze data from sources including but not limited to: daily logs, voice recordings, FAA Tactical Operations (TACOPS) replays, NAS Operational Display (NOD), Traffic Flow Management System (TFMS) tools, Air Traffic Operations Network (OPNET), Aviation System Performance Metrics (ASPM), and interviews with operational personnel.

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## **Target: Post Event and Daily NAS Analysis**

Conduct and prepare Post Event and Quality Assessments of air traffic management services and identify areas to continually improve the safety and efficiency of services and to moderate the National System Review responding to any customer comments.

## **Target: Flight Trend Analysis**

Analyze specific flights and trending to previous years/months to determine the change on Ground Delay Programs (GDPs), Airspace Flow Programs (AFPs) Ground Stops (GSs) and Collaborative Trajectory Options Program (CTOPs) and Playbook Routes. Data sources include Flight Schedule Monitor (FSM), Flight Schedule Analysis (FSA), National Traffic Management Log (NTML), Air Traffic Operations Network OPSNET and Aviation System Performance Metrics (ASPM).

## **Activity: PERTI - Expand Advanced Planning to Surrounding Air Navigation Service Providers (ANSP's)**

Expand the planning work underway in surrounding ANSPs including the Caribbean Region, Mexico and Canada to be included in the advanced planning process.

## **Target: PERTI - CAPTURE MILES IN TRAIL RESTRICTIONS**

Work with FAA En Route Facilities to capture international Miles in Trail (MIT) restrictions in the National Traffic Management Log (NTML). Conduct restriction analysis/application review meetings with surrounding ANSP's.

## **Target: PERTI - EXPAND NAV CANADA, SENEAM, CADENA ADVANCED PLANNING COORDINATION**

Expand NAV Canada, SENEAM, CADENA advance planning coordination.

## **Target: PERTI - IDENTIFY SURROUNDING ANSP INFORMATION TO ENHANCE THE ADVANCED PLANNING PROCESS**

Work with stakeholders to identify surrounding ANSP information to enhance the advanced planning process. Initiate with North Atlantic Track, Pacific Track and Caribbean volume planning.

## **Activity: PERTI - Expand the Operational Implementation of PERTI**

Expand the strategic planning process and operational implementation of the PERTI initiative by extending the planning horizon, improving the transition of the plan to the execution phase, improving stakeholder engagement, performing a comprehensive review of the effectiveness for the execution of the plan and drive learning into the operational environment.

## **Target: PERTI - Improve the Process for Extending the Planning Horizon**

Improve the plan transition to operational plan/actions. Identify shortfalls and gaps in the transition process and develop/implement improvement strategy.

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## **Target: PERTI - Improve Stakeholder Engagement**

Conduct a shortfall and gap analysis between FAA and stakeholder advanced planning processes. Use the analysis to develop and implement improvements to advanced planning future state. Expand the planning, communication and coordination activities of the PERTI process amongst the DDSO offices, field facilities, airlines, stakeholder trade organizations, and international partners.

## **Target: PERTI Improve Planning and Assessment Processes**

Work with stakeholders to identify successful volume and convection day actions and measures. Use the results to improve the planning and assessment processes.

## **Target: PERTI - Analyze Specific Flight and Trending to Previous Months/Years to Determine Changes Required**

Analyze specific flights and trending to previous months/years to determine the changes on Ground Delay Programs (GDPs), Airspace Flow Programs (AFPs), Ground Stops (GSs) and Collaborative Trajectory Options Programs (CTOPs) and Playbook Routes. In addition, analyze trending on Miles-in-Trail (MIT), delays and cancellations. Data sources include but not limited to: Flight Schedule Monitor (FSM), Flight Schedule Analysis (FSA), National Traffic Management Log (NTML), Air Traffic Operations Network (OPSNET) and Aviation System Performance Metrics (ASPM).

## **Activity: FIELD LEADERSHIP Critical Planning and Operational Capacity and Efficiency Performance Review**

Provides leadership to ensure NAS efficiency and safety issues are identified and prioritized on behalf of the ATO for appropriate action. Evaluates system performance and provides findings and recommendations to all pertinent ATO managers and ATO senior leadership. Coordinates with key representatives of the ATO, the military, other federal agencies, state and local governments, the aviation industry, the regulatory organizations of the FAA and the general public on traffic management and operational issues.

## **Target: East North Corridor - Evaluate System Performance**

Work closely with the NextGen Integration Work Group (NIWG) to capture metrics of increased usage of capping and tunneling that improves the efficiency in the Northeast corridor.

## **Target: East South Corridor - Evaluate Caribbean Initiative System Performance**

Report on updates for the Caribbean Initiative and evaluate system performance.

## **Target: West Corridor - Promote and Evaluate Improvements to Safety and Efficiency on the Northwest Gate Arrivals into Denver Approach Control (D01)**

Assist Denver District facilities and report on improvements of traffic flows into D01 from ZDV on Northwest Gate arrivals into Denver.

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## **Target: Central Corridor - Promote and Evaluate Improvements to Safety and Efficiency Departures from Chicago O'Hare Airport**

Assist Chicago District and 1st Tier facilities in reducing Chicago O'Hare departure delays through improved departure strategies. Communicate and report on updates for the initiative.

## **Initiative: Augmentations for GPS Wide Area Augmentation System (WAAS)**

WAAS, a satellite based navigation technology, allows qualifying airports (ref. advisory circular 150/5300-14A, Table 3-4, 3-5 and Terminal Instrument Procedures (TERPS) 8260.58) in the NAS to have vertical and horizontal guidance during all phases of a flight, regardless of weather conditions, without installing expensive legacy navigation hardware at each runway. WAAS uses a network of precisely located ground reference stations across the U.S., Canada & Mexico to monitor GPS satellite signals. This information is then collected and processed before being sent to user receivers via leased navigation transponders on Geostationary Earth Orbiting (GEO) satellites. The WAAS-provided messages improve the accuracy, availability, and safety of GPS-derived position information. WAAS results in safety and capacity improvements in the National Airspace System (NAS) and will reduce FAA operations costs by enabling the removal of some ground-based navigation infrastructure. WAAS is in a mixed life cycle. Phase IV, Dual Frequency will provide improved operational capability during periods of severe solar storm activity along with additional protection against interference to the GPS. The dual frequency upgrade will leverage improvements of the DoD GPS modernization program. During Phase 4B, the WAAS Program Office will continue to support GPS civil technical oversight efforts. The GPS technical oversight ensures changes the DoD makes to the GPS constellation does not impact the FAA's WAAS and GPS based aviation users. Lastly, the program coordinates to ensure Localizer Performance with Vertical Guidance (LPV)/Localizer Performance (LP) procedures are available at 5,218 runways in the NAS.

## **Activity: Augmentations for GPS Wide Area Augmentation System (WAAS) Phase 4B**

Augmentations for GPS Wide Augmentation System (WAAS) 4B

### **Target: WAAS Phase 4B -Release 6 (TSS) and (O&M) Validation Testing**

Release 6 Test Support Software (TSS) and Operations and Maintenance (O&M) validation testing to correct anomalies to the O&M, TSS and network critical message logging capabilities complete.

### **Target: WAAS Phase 4B -Time-Division Multiplexing to Internet Protocol (TDM-IP) OPIP Field Demo**

Time-Division Multiplexing to Internet Protocol (TDM-IP) OPIP Field Demo Completion.

## **Activity: WAAS LPV/LP Approach Procedures**

Ensure Localizer Performance with Vertical Guidance (LPV) or Localizer Performance (LP) procedures are available at each of the 5,218 runways in the NAS that meet the applicable criteria. The FY2020 national goal is fifty (50).

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## **Target: AJM-321 Satellite Navigation WAAS LPV/LP Approach Procedures**

Develop and publish 50 WAAS Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) approach procedures.

## **Target: AJV-A Aeronautical Information Services Support to WAAS LPV /LP Procedures**

Aeronautical Information Services will design, develop and publish 50 WAAS LPV/LP procedures.

## **Target: AJF-0 - Flight Program Operations Support to WAAS LPV /LP Procedures**

Provide FY2020 flight inspection support to the Wide Area Augmentation System (WAAS) program. Flight Program Operations will complete 100% of all funded procedures submitted with appropriate lead time by Aeronautical Information Services (AJV-A) for inspection/validation by September 30, 2020.

## **Initiative: Visual NavAids - Approach Lighting Systems (ALS)**

The Approach Lighting System Safety Enhancement Program upgrades approach lighting systems built before 1975. It 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: Medium Intensity Approach Lighting System (MALSR) Procurement and Replacement**

Complete MALSR procurement and replacement projects

### **Target: Complete Medium Intensity Approach Lighting System (MALSR) replacement.**

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

### **Target: Procure Remote Radio Control Interface Units for MALSR.**

Procure 40 Remote Radio Control Interface Units (RRCIU) for MALSR.

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## **Initiative: Visual NavAids for New Qualifiers (VNNQ)**

These lighting systems facilitate the transition from cockpit instruments to external visual references during the final landing phase. Different categories and types of approaches require different visual NavAids equipment. This program supports the procurement, installation, and commissioning of PAPI systems and Runway End Identifier Lights (REIL) systems. The PAPI provides visual approach glide slope information to pilots and enables them to make a stabilized descent with a safe margin of approach clearance over obstructions. PAPI consists of four lamp housing assemblies arranged perpendicular to the edge of the runway. PAPI projects a pattern of red and white lights along the desired glide slope so a pilot can tell whether they are on the glide slope and how to correct their glide slope if they are above or below it. A REIL is a visual aid that provides the pilot with a rapid and positive identification of the runway end in use during approach. The REIL system consists of two simultaneously flashing white lights, one on each side of the runway landing threshold. The implementation of PAPI systems satisfies Commercial Aviation Safety Team (CAST) recommendations and Land and Hold Short Operations (LAHSO) requirements. \* The FAA plans to implement the 170 highest priority CAST PAPI installations. This number would cover 80% of commercial airline operations. \* LAHSO is an air traffic control tool used to increase airport capacity by allowing simultaneous approaches on intersecting runways. PAPI systems are required when runways are approved for LAHSO. Relationship to Measure: Installing PAPI lights at both CAST and non-CAST locations enhances system safety by reducing the probability of a Controlled Flight into Terrain accident during approach and landing. Installing the REIL system reduces accidents because the system clearly identifies the runway end to the pilot.

### **Activity: Visual NavAids for New Qualifiers (VNNQ)**

Procure and Install Precision Approach Path Indicator (PAPI) Systems.

### **Target: Install Precision Approach Path Indicator (PAPI) systems.**

Install two (2) Precision Approach Path Indicator (PAPI) systems.

## **Initiative: Wind Shear Detection Services (WSDS)**

Rapidly updating terminal weather observations leading to Wind Shear / Microburst detections and alerts are provided to NAS controllers by terminal weather radars and automated wind shear detection systems. Over one hundred legacy, automated wind shear detection providers at heavy air traffic volume air terminals continuously stream rapid observations, machine-to-machine, into NAS and NextGen Weather Processing Systems, Displays and NextGen User Decision Support Tools. NextGen may plan alternatives to eventually replace wind shear / microburst alert providers, yet budget and program changes to the replacements often leave indefinite, the remaining service life of legacy wind shear systems, subject to significant extensions. This initiative ensures no gaps in legacy wind shear services throughout the NextGen transition, no matter whether replacement plans and deployment schedules may change or cease altogether. Relationship to Measure: TDWR, and the WSDS portfolio (ASR-WSP, LLWAS-NE, LLWAS-RS) in total provide four wind shear detection programs that contribute to the 2015 Strategic measure by ensuring sustained service of automated wind shear / microburst detection by over one hundred automated terminal wind shear detection systems in service to nearly 90% of all commercial Part 121 flights on approach and during landing in the United States each day.

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## **Activity: Wind Shear Detection Service (WSDS) - Work Package 1**

Wind Shear Detection Service (WSDS) Work Package (WP) 1 addresses obsolescence and supportability issues plaguing Low Level Wind Shear Alerting System (LLWAS), Wind Measuring Equipment (WME), and Weather Systems Processor (WSP). The LLWAS/WME SLEP will replace several WME remote and master stations containing obsolete and unsupported components, replace several damaged and sheltered wind sensor poles, replenish LLWAS ribbon displays, replace older broadband radios, and replenish stock levels of the ultrasonic wind sensors. The WSP Tech Refresh portion of the program will replace a critical component vital to maintaining wind shear detection service at 34 operational WSP locations and 4 support locations. The Radar Video Processor (RVP) 700 currently installed in the WSP will be upgraded to the newer RVP 900 series since the current version is no longer supported by the vendor, and failing at an alarming rate.

### **Target: Wind Shear Detection Service (WSDS) - Work Package 1**

Complete LLWAS work package at the last airport

### **Target: Wind Shear Detection Services (WSDS) Sustainment 2**

Complete Investment Analysis Readiness Decision (IARD)

### **Target: Wind Shear Detection Services (WSDS) Sustainment 1**

Complete LLWAS work package at ATL.

## **Initiative: Terminal Doppler Weather Radar (TDWR)**

Rapidly updating terminal weather observations leading to Wind Shear / Microburst detections and alerts are provided to NAS controllers by terminal weather radars and automated wind shear detection systems. Over one hundred legacy, automated wind shear detection providers at heavy air traffic volume air terminals continuously stream rapid observations, machine-to-machine, into NAS and NextGen Weather Processing Systems, Displays and NextGen User Decision Support Tools. NextGen may plan alternatives to eventually replace wind shear / microburst alert providers, yet budget and program changes to the replacements often leave indefinite, the remaining service life of legacy wind shear systems, subject to significant extensions. This initiative ensures no gaps in legacy wind shear services throughout the NextGen transition, no matter whether replacement plans and deployment schedules may change or cease altogether. Relationship to Measure: TDWR, and the WSDS portfolio (ASR-WSP, LLWAS-NE, LLWAS-RS) in total provide four wind shear detection programs that contribute to the 2015 Strategic measure by ensuring sustained service of automated wind shear / microburst detection by over one hundred automated terminal wind shear detection systems in service to nearly 90% of all commercial Part 121 flights on approach and during landing in the United States each day.

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## **Activity: TDWR Sustainment Phase 2**

Terminal Doppler Weather Radar (TDWR) Service Life Extension Program (SLEP) Work Package 2 will maintain the TDWR service availability requirements as identified in NAS Requirements Document, NAS- RD-2013. Though it is anticipated that the TDWR will be replaced by NextGen Surveillance and Weather Radar Capability (NSWRC), the TDWR must be properly maintained until the 2030 timeframe. TDWR SLEP Work Package 2 will address high failure rates, and obsolescence issues with antenna controllers, circuit boards, transmitter components, workstations, servers, routers, and facility grounding.

### **Target: TDWR Sustainment Phase 2**

Complete Delivery of Wind Shear Ribbon Display Replenishment Units to FAA Depot.

### **Target: TDWR Sustainment Phase 2**

Complete Transmitter Microwave Assemblies Replacement First Article Testing.

## **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: AIM Modernization Segment 2**

AIMM Segment 2 (S2) will provide the infrastructure, via the Aeronautical Common Service (ACS), for an enterprise-based approach for AI processing and dissemination. AIMM S2 will establish the ACS as the trusted access point of integrated AI for internal and external consumers in the NAS. The ACS will: - Provide an enterprise-level infrastructure platform leveraging System Wide Information Management (SWIM), internationally recognized exchange standards, and web services to deliver AI across the NAS with native functionality to process, transform, filter, and publish tailored AI as services to end use applications; -Expand the distribution of NOTAMs included as part of the FNS; -Improve distribution of Special Activity Airspace (SAA) relevant information among stakeholders. Digital management of SAA will facilitate calculation of airspace usage and availability metrics in support of efficiency of air traffic management, analysis of SAA usage, integration with industrial partners, and scheduling automation; -Provide access to Airports Geographic Information System (GIS) data for critical information about airports; -Fully leverage the SWIM Common Support Services infrastructure to deliver quality AI using common standards and services; -Modernize the NAS Resource (NASR) system with AIMM S2 capabilities and service; -Implement a Cloud Computing eligible software solution. AIMM S2 will deploy the following integrated enterprise capabilities: (1) Aeronautical Information Query and Subscription Service (AIQS), (2) Aeronautical Information Integration (AII), (3) Spatial Information Mapping (SIM), and (4) Aeronautical Information Data Analytics (AIDA).

### **Target: AIM Modernization Segment 2**

Release 3 Operational Test and Evaluation Completed

### **Target: AIM Modernization Segment 2**

Release 3 Operational

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## **Target: Aeronautical Information Management (AIM) Modernization Enhancement 1**

Draft Business Case Analysis Report (BCAR) Enhancement 1

## **Target: NOTAMS**

Complete single public organization and single public distribution for the Federal NOTAM System

## **Initiative: Runway Safety Area - Navigation Mitigation**

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. The scope of the work to satisfy the language of Title 14 Code of Federal Regulations (CFR) Part 139 (Certification of Airports) will range from the installation of frangible connections on identified structures to the relocation of facilities within and outside the RSA.

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

Where practical, upgrade Runway Safety Areas to meet standards.

#### **Target: Initiate Runway Safety Area (RSA) Navigation Mitigation Phase II**

Initiate five (5) RSA projects.

#### **Target: Complete Runway Safety Area (RSA) Navigation Mitigation Phase II projects.**

Complete 10 RSA projects.

## **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.

### **Activity: Common Support Services Weather (Css-Wx)**

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#### **Target: CSS-Wx**

Complete re-planning and develop the integrated schedule

## **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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## **Activity: NextGen Weather Processor (NWP) Work Package 1**

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

### **Target: NextGen Weather Processor (NWP) Work Package 1**

Complete re-planning and develop the integrated schedule

## **Initiative: Top 5**

A quantifiable list of hazards that contribute to the highest risk in the national airspace system. It is the culmination of the ATO's proactive safety management activities — valuing input from the frontline employees, deploying technology to gather data, improving analysis to identify risk and embracing correction to implement risk mitigations.

## **Activity: Top 5 CAP Implementation Through Collaboration Across the ATO**

Implement approved mitigation activities in association with ATO's Top Five (5) identified trending safety issues in the National Airspace System (NAS).

### **Target: Track Corrective Action Completion**

Collaborate with stakeholders to track the completion of activities identified for all ATO Top 5 corrective actions and provide a monthly status update for stakeholders.

### **Target: Monitor Top 5 Issues**

Monitor safety data behind the Top 5 identified trending safety issues quarterly to compare against their safety performance targets and make recommendations on potential closeout of the safety issue.

### **Target: Top 5 CAP Implementation Through Collaboration Across the ATO**

Implement 75% of approved mitigation activities in association with ATO's Top Five (5) identified trending safety issues in the National Airspace System (NAS).

### **Target: Top 5 CAP Implementation Through Collaboration Across the ATO**

Implement 85% of approved mitigation activities in association with ATO's Top Five (5) identified trending safety issues in the National Airspace System (NAS).

## **Activity: CAP Development**

Facilitate the collaborative development/approval of activities to be completed in future fiscal years

### **Target: Influence and prepare stakeholders while defining CAP activities for inclusion in the CAP document**

Develop a draft CAP document and initiate approval of the updated plans, which defines activities for the upcoming fiscal year.

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## **Activity: Support for ATO Top 5**

Support 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: AJM-2 Support for Top 5**

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

### **Target: AJM-2 Support for Top 5**

Participate as needed in drafting and approval of Corrective Action Plan documents, which will define activities to be implemented in future fiscal years.

### **Target: AJR-B Support for Top 5**

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

### **Target: AJR-B Support for Top 5**

Participate as needed in drafting and approval of Corrective Action Plan documents, which will define activities to be implemented in future fiscal years.

### **Target: AJV-P Support for ATO Top 5**

Provide procedural support to mitigating the Top 5 Hazards to Safety by issuing an Air Traffic Procedures Bulletin that emphasizes positive control, situational awareness, and scenarios that require traffic advisories and safety alerts.

### **Target: AJV-P Support for ATO Top 5**

Provide procedural support to mitigating the Top 5 Hazards to Safety by initiating a document change proposal to FAA Order JO 7110.65 regarding TCAS Resolution Advisories.

### **Target: AJT-2 Support for the ATO Top 5**

Implement/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-2 Support for the ATO Top 5**

Participate as needed in drafting and approval of Corrective Action Plan documents, which will define activities to be implemented in future fiscal years.

### **Target: AJT-E Support for the ATO Top 5**

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

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## **Target: AJW-1 Support for the ATO Top 5**

Maintain a 25 percent or greater reduction in events categorized as “no coordination” when compared to the FY18 baseline of 15 events annually.

## **Target: AJT-C Support for ATO Top 5**

Implement/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-W Support for the ATO Top 5**

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

## **Target: AJM-4 Support for the ATO Top 5**

Develop strategic approach and coordinated effort between Separation Automation System Engineering (SASE), Surveillance Broadcast Services (SBS), En Route Automation Modernization (ERAM), and other programs for funding (if appropriate), and provide end-of-fiscal-year update to Concepts, Validation, and Requirements (CVR) directors forum.

## **Target: AJM-4 Support for the ATO Top 5**

Identify the sponsor(s) to resolve selected altitude compliance issues and confirm prioritization via Concepts, Validation, and Requirements (CVR) directors forum.

## **Target: AJV-P Support for ATO Top 5**

Provide procedural support to mitigating the Top 5 Hazards to Safety by revising FAA Orders JO 7110.65, JO 7110.10, and JO 7210.3 to ensure the chapters addressing Pilot Weather Reports (PIREPs) include consistent guidance regarding PIREP coding, solicitation, dissemination, and terms, as appropriate based on data review.

## **Target: AJV-P Support for ATO Top 5**

Provide procedural support to mitigating the Top 5 Hazard to Altitude Compliance by reviewing the appropriate paragraphs in FAA Order JO 7110.65 regarding altitude restrictions or clearances, making changes as necessary, and submitting a report to AJI on the findings.

## **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.

# FY 2020 ATO Business Plan



## **Activity: Runway Safety Council**

Leverage the Runway Safety Council to lead the monitoring of the effectiveness of the FAA's National Runway Safety Program in managing risk in commercial and non-commercial flight operations, air traffic operations, and vehicle operations.

### **Target: Manage Commercial Surface Safety Risk Index**

Commercial Surface Safety Risk Index: Manage the weighted surface safety risk index at or below 0.35 per million airport operations for commercial aviation.

### **Target: Manage Non-Commercial Surface Safety Risk Index**

Non-Commercial Surface Safety Risk Index: Manage the weighted surface safety risk index at or below 0.60 per million airport operations for non-commercial aviation.

## **Activity: Runway Safety Action Teams (RSAT)**

Enhance the product from Runway Safety Action Team's (RSAT) by ensuring each team meets, or exceeds, the requirements.

### **Target: Familiarize RSPMs**

Familiarize RSPMs with web based Runway Safety Action (RSAT) data visualization and teams RSAT workflow tool.

### **Target: Familiarize ATMs**

Familiarize Air Traffic Managers (ATMs) with web based Runway Safety Action Teams (RSAT) data visualization and RSAT workflow tool.

### **Target: Conduct**

Conduct 1 Runway Safety Action Team (RSAT) per Service area using RSAT workflow tool.

### **Target: Reduce the risk of surface events by implementing improvements and mitigations.**

At locations with high frequency or severe wrong surface operations risk, runway excursion risk, or surface collision risk, conduct at least three (3) Special Focus Runway Safety Action Team (SFRSAT) meetings per Service Area (i.e., Eastern Service Area, Central Service Area, and Western Service Area) and develop a minimum of nine (9) Runway Safety Action Plans.

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## **Activity: Runway Safety DOT Enterprise Risk Management (ERM)**

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: "Planned" Risk Response for Runway Safety DOT/ERM.**

The Runway Safety Program will continue enhancement of the FAA's strategic activities, programs, and objectives associated with achieving the agency's runway safety goals through the ongoing development of 2018-2020 National Runway Safety Plan.

## **Activity: AJT-2 Support of Runway Safety Technology Program Management Integration.**

In FY20, AJT-2 will support AJI in integrating Program Management of Runway Safety technologies, Speech Recognition and Memory Aid Research in the Runway Incursion Prevention Situational Awareness (RIPSA) activities.

### **Target: AJT-2 Support of Runway Safety Technology Program Management Integration**

AJT SME will support NextGen's final technical requirements for solicitation and acquisition of "right-site-right-size" technologies, by providing input on the best system to deploy for Runway Incursion Prevention through Situational Awareness (RIPSA).

### **Target: AJT-2 Support of Runway Safety Technology Program Management Integration**

AJT SME will support NextGen's Final Program Plan for "right-site-right-size" by assisting in the development of the Runway Incursion Prevention through Situational Awareness (RIPSA) implementation Plan.

## **Initiative: Human Performance in Safety Analysis**

Sponsor research to support AJI/ATO in understanding and communicating the impacts of Human Factors Elements on Human Performance in Safety and Training and review/communicate the quantity and quality of human performance data collected from the field.

### **Activity: Human Performance Research**

Sponsor Research to support AJI in understanding the impacts of Human Factors Elements on Human Performance In Safety and Training.

# FY 2020 ATO Business Plan



## **Target: Field Training Effectiveness**

Conduct research to analyze subjective perspectives of factors that influence field training effectiveness across various NAS facilities with differing levels of training success.

## **Target: HP Behavioral Indicators**

Conduct research to identify behavioral markers that help to identify when a controller is reaching their workload capacity, both internally to themselves and externally observable to their colleagues and managers.

## **Target: Hold a PIREPS Wx summit and focus groups event**

Hold a PIREPS Wx summit and focus groups event in support of the ATO CAP/ PIREPS Strategy #5 to guide the development of a comprehensive end-to-end Human Factors research plan.

## **Activity: Utilization and Impact of Human Performance and UAS**

Conduct a review of human performance research activities related to controller management of UASs and communicate results.

### **Target: Conduct**

Review working sessions with researchers across FAA lines of business to identify active, completed, and planned research related to controller management of UASs

### **Target: Gather**

Review ATC human performance gap analysis identifying policy, automation, and additional research necessary to support the normalization of UAS operations in the NAS

### **Target: Communicate Results**

Communicate the results of the analysis and initiate actions to close the policy, automation, and performance gaps identified.

## **Initiative: Expand knowledge of the newly reformatted TSAP**

Increase safety awareness and proper reporting through increased knowledge of the TSAP program, and safety analysis, thereby contributing to the total NAS safety concept and mitigating safety concern in an effective, direct and proactive manner.

### **Activity: T-SAP Program Education: Prototype an outreach education program at 3 locations fiscal year.**

Develop TSAP educational materials that demonstrate value, purpose, and provide a better understanding of the types of risk TSAP is able to address. Reduce the risk of runway incursions resulting from errors by pilots, air traffic controllers, pedestrians, vehicle operators, tug operators, and individuals conducting aircraft taxi operations by working in collaboration with aviation stakeholders to identify and mitigate risk.

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## **Target: Develop Draft Material**

Schedule, confirm and plan a schedule for visitation of Tech Ops field locations. Create agenda and presentations items as well as Q&A for personnel (Management and Bargaining unit) through collaborative process.

## **Target: Plan**

Plan for at least 2 facility sessions and modify TSAP instructional material.

## **Target: Draft Prototype**

Complete a draft proto-type and provide a recommendation on how to expand Tech Ops T-SAP education.

## **Initiative: Improve System Risk Communication**

Improve the safety of the NAS by developing and promoting JATOC workflows that educate and prepare Air Traffic and Technical Operations personnel.

### **Activity: Identify and Document Proper Workflows**

Identify, develop, document, and communicate workflows for Air Traffic and Technical Operations JATOC personnel.

#### **Target: Review**

Conduct a review of existing JATOC orders and AJI SOP's to determine adequacy and identify gaps.

#### **Target: Create and Revise**

Create new documentation, revise existing AJI SOP's, or recommend revisions to JATOC orders as appropriate.

### **Activity: Promote and Train**

Promote JATOC related workflows and train Air Traffic and Technical Operations personnel within the Command Center on their use.

#### **Target: Promote**

Make JATOC related documentation and guidance available and readily accessible to all Command Center personnel.

#### **Target: Train**

Incorporate the review of JATOC related documentation into the training plans for all AJI JATOC personnel.

## **Initiative: NOTAM Modernization**

Improve the presentation of NOTAM information.

# FY 2020 ATO Business Plan



## **Activity: NOTAM Updates**

Improve the presentation of NOTAM information in a manner that prioritizes or highlights the most important information, and optimizes pilot review and retention of relevant information. Complete single public origination and single public distribution for the Federal NOTAM System. Due September 30, 2020

### **Target: Requirements for Federal NOTAM System enhancement**

Deliver Requirements for the Federal NOTAM System enhancements to the PMO.

### **Target: Conduct the Aeronautical Information (AI)/ Notices to Airmen (NOTAMs) Data Optimization Summit.**

Conduct this Summit to bring together app developers; information service providers; airlines, pilots, and their representatives; and other users of aviation data to ideate ways to improve the delivery and presentation of NOTAM information for pilots and aviation operations.

### **Target: Update SOPs and Directives for NOTAM processing**

Complete governance updates to applicable SOPs and Directives for NOTAM processing.

### **Target: Single origination and distribution for the Federal NOTAM system**

Complete single public origination and single public distribution for the Federal NOTAM System.

## **Activity: Eliminate Data Duplication in the Chart Supplement Backmatter**

Complete all activities supporting the reduction of data duplication in the Chart Supplement backmatter.

### **Target: Reduction of Data Duplication**

Complete all activities supporting the reduction of data duplication in the Chart Supplement backmatter.

## **Activity: Modernize Preferred Routes**

Complete all activities supporting the harmonization of Preferred Route data publication and dissemination.

### **Target: Preferred Route data publication and dissemination**

Complete all activities supporting the harmonization of Preferred Route data publication and dissemination.

## **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.

# FY 2020 ATO Business Plan



## **Activity: Advanced Analytics**

Develop advanced analytics to support effective risk management.

### **Target: Develop an Airborne Safety Metric**

Through collaboration with stakeholders, develop an airborne safety metric utilizing a comparable approach and methodologies employed in the development of the surface safety metric.

### **Target: Determine Hazard and probability of Collisions**

Collaborating with stakeholders, determine the hazard and probability of collision between manned aircraft and UAS. Update the ATO SMS Hazard Table to reflect these determinations.

### **Target: Provide Integrated Safety Intelligence**

Collaborate with stakeholders to define requirements; Coordinate with AIT on implementing a means where data visualization tools (i.e. Tableau and Microsoft Power BI) can connect to an authoritative data source.

## **Initiative: Enhance the Risk-Based Approach to Audits and Assessments**

Enhance the risk-based approach to audits and assessments of the most critical trends identified through the analysis of safety-related data and leading risk indicators.

### **Activity: Risk-Based Operational Assessments Development**

Refine process for conducting operational assessments and audits.

#### **Target: Refine the process for audits and assessments**

Coordinate with our stakeholders to refine the process for audits and assessments to increase stakeholder acceptance of findings and to more effectively communicate to the management.

#### **Target: Track Corrective Actions/Mitigations Completion**

Collaborate with our stakeholders to develop a process to track the status of corrective actions and mitigations resulting from an audit or assessment.

### **Activity: Annual Audits and Assessments Candidates List Development**

Develop the annual audit/assessment candidate list to include candidates based on safety data and stakeholder input.

#### **Target: Data Collection and Review**

Develop internal process for collecting and reviewing safety-related data to identify potential audit and assessment candidates.

# FY 2020 ATO Business Plan



## **Target: Develop Annual Candidates List**

Coordinate with our stakeholders to develop the potential list of risk-based audits and assessments for the upcoming fiscal year.

## **Initiative: Integrate New Entrants**

Safely and efficiently integrate new types of operations, such as Commercial space operations, into the NAS and enable the benefits these operations will provide.

## **Activity: Lead safety assessment of non-legacy captive carry launch/reentry operations**

Use Safety Management System (SMS) processes to review and provide assessments of launch/reentry operations, standards, and procedures. Non-Legacy captive carry operations include captive carry operations that may operate outside Special Use Airspace (SUA) (i.e. through Class A) during the mission.)

## **Target: Facilitate Panels and Coordinate Data**

Collaborate with stakeholders to facilitate SRM panels and coordinate data to support safety assessments of non-legacy space vehicle operations and/or supporting air traffic procedures and technologies.

## **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**

Complete Final Investment Decision (FID) by September 2020

## **Infrastructure**

Invest in Infrastructure to Ensure Safety, Mobility, and Accessibility and to Stimulate Economic Growth, Productivity and Competitiveness for American Workers and Businesses.

## **Project Delivery Planning Environment Funding and Finance**

Facilitate expanded infrastructure development, modernization, and construction in both rural and urban communities by fostering more efficient and collaborative planning and construction techniques, accelerating project approval, leveraging all sources of funding, and promoting innovative financing while maintaining environmental stewardship.

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## **Initiative: NextGen**

Support National Airspace System (NAS) modernization and evolution through infrastructure improvements, technology, information sharing, and community engagement.

# FY 2020 ATO Business Plan



## **Activity: Action plan to minimize risk to the Automatic Dependent Surveillance-Broadcast (ADS-B) mandate.**

Ensure operational readiness for the Automatic Dependent Surveillance-Broadcast (ADS-B) Airspace Rule effective date of 1/1/2020.

### **Target: ADS-B Deviation Authorization Pre-flight Tool (ADAPT)**

Implement web-enabled ADS-B Deviation Authorization Pre-flight Tool (ADAPT) for non-equipped aircraft.

### **Target: Privacy Concerns**

Implement FAA Solution to Address Privacy Concerns.

### **Target: Policies and Procedures**

Implement Document Change Proposals for ADS-B Policies and Procedures and Publish Advisory Circular 90-114a.

## **Activity: Community Engagement and Noise**

Develop a procedural communication campaign that results in better coordination and collaboration across lines of business, staff offices and stakeholders to address a wide range of concerns including aircraft noise.

### **Target: Community Engagement for Airspace Actions**

Collate the best practices from existing guidance documents into a corporate FAA community engagement policy.

### **Target: Community Engagement and Noise**

Establish geographic integrated teams in all 9 regions to address noise issues or specific community challenges and identify possible mitigation opportunities by developing standard operating procedures, training and integration of CEOs and establishing common tools and reporting protocols.

## **Initiative: Ground Based Navigation**

The sustainment and optimization of Ground Based Navigation Aids to support performance based navigation.

## **Activity: Deliverables - Very High Frequency Omni-directional Range (VOR) Minimum Operational Network (MON)**

VORMON program is designed to remove 30% of the current VORs from the contiguous United States by 2025 to enable aircraft to continue to navigate and land during Global Positioning System (GPS) outages.

### **Target: Deliverables - Very High Frequency Omni-directional Range (VOR) Minimum Operational Network (MON)**

Complete the discontinuance of twenty-three (23) VORs.

# FY 2020 ATO Business Plan



## **Activity: Deliverables - DME/VOR/TACAN (DVT)**

Explore the ability to sustain the Distance Measuring Equipment (DME)/ Very High Frequency Omni-directional Range (VOR) / Tactical Air Navigation (TACAN) (DVT) navigation aids and enter into contracts or partnerships with industry to provide the navigation services.

### **Target: DME/VOR/TACAN (DVT)**

Develop the Initial Program Requirements Document for DVT Sustainment Portfolio.

## **Activity: Deliverables - NextGen Distance Measuring Equipment (DME) Program**

For the NextGen DME Program, install 124 DMEs by 2031 to enable Area Navigation (RNAV) 1 capability for aircraft to continue Performance Based Navigation (PBN) operations during Global Positioning System (GPS) outages.

### **Target: NextGen Distance Measuring Equipment (DME) Program**

Complete the installation of three (3) DME systems.

## **Initiative: NAS Voice Recorder**

Complete NAS Voice Recorder (NVR) Source Selection Evaluation Report of Vendor Selection Decision.

### **Activity: NAS Voice Recorder**

NAS Voice System (NVR)-Vendor Selection Evaluation Report

### **Target: NAS Voice Recorder (NVR)**

Conduct NVR logistics support guidance conference.

## **Initiative: Very High Frequency Omni-directional Range (VOR) Minimum Operational Network (MON) Implementation**

VORMON program is designed to remove 30% of the current VORs from the contiguous United States by 2025 to enable aircraft to continue to navigate and land during Global Positioning System (GPS) outages.

### **Activity: Very High Frequency Omni-directional Range (VOR) Minimum Operational Network (MON)**

Complete the discontinuance of twenty-three (23) VORs.

### **Target: VOR MON (AJV-11) Airspace Regulations & ATC Procedures Group**

Initiate Part 71 rulemaking actions required, upon receipt of Service Center OSG recommendation packages, resulting from twenty-three (23) VOR discontinuance determinations associated with the VOR MON program Phase 1 FY20 milestones.

### **Target: VOR MON (AJV-A) Aeronautical Information Services**

Complete all Instrument Flight Procedures (IFP) activities required to discontinue twenty-three (23) VORs.

# FY 2020 ATO Business Plan



## **Target: VOR MON (AJV-E3) Planning and Requirements Group**

Complete the JO 7400.2 NAVAID Discontinuance process to support the VOR MON Program's national discontinuance goal of twenty three (23) VORs.

## **Target: VOR MON (AJV-E2) Operations Support Group**

Complete the instrument flight procedures preliminary design and coordination activities required to support the VOR MON Program's national discontinuance goal of twenty-three (23) VORs.

## **Target: VOR MON (AJV-W3) Planning and Requirements Group**

Complete the JO 7400.2 NAVAID Discontinuance process to support the VOR MON Program's national discontinuance goal of twenty-three (23) VORs.

## **Target: VOR MON (AJF-1) Flight Program Operations**

Complete flight inspection support activities in accordance with the FY20 Agreement between AJM-324 and Flight Program Operations, to support the VOR MON Program's discontinuance goal of twenty-three (23) VORs.

## **Target: VOR MON (AJV-C) Planning and Requirements Group**

Complete the JO 7400.2 NAVAID Discontinuance process to support the VOR MON Program's national discontinuance goal of twenty-three (23) VORs.

## **Target: VOR MON (AJV-C) Operations Support Group**

Complete the instrument flight procedures preliminary design and coordination activities required to support the VOR MON Program's national discontinuance goal of twenty-three (23) VORs.

## **Target: VOR MON (AJV-W) Planning and Requirements Group**

Complete the instrument flight procedures preliminary design and coordination activities required to support the VOR MON Program's national discontinuance goal of twenty-three (23) VORs.

## **Target: VOR MON Program (AJW-1)**

Complete development of the Facility Central Processing Unit (FCPU) System Support Modification (SSM) for the 3rd Gen VOR system for the VOR MON Program.

## **Initiative: Voice Communications Systems (VCS) – Phase 1**

Complete draft Specification.

### **Activity: Voice Communications Systems (VCS) – Phase 1**

Release draft Specification to Industry.

# FY 2020 ATO Business Plan



## **Target: Voice Communications Systems (VCS) – Phase 1**

Release draft Specification to Industry in support of continued market research for the Voice Communications Systems acquisition(s).

## **Initiative: AJM-4 Surveillance Strategy**

AJM-4 Surveillance Strategy

### **Activity: AJM-4 Surveillance Strategy**

AJM-4 Surveillance Strategy

## **Target: Update the AJM-4 Surveillance Strategy.**

Update the AJM-4 Surveillance Strategy.

## **Life Cycle and Preventive Maintenance**

Keep the Nation's transportation infrastructure secure and in a state of good repair by maintaining and upgrading existing systems in rural and urban communities.

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## **Initiative: Integrated Life Cycle and Supply Chain Management**

The Logistics Center in collaboration with users and stakeholders will continue to develop and optimize key supply chain management processes.

### **Activity: Supply Chain Management Optimization**

FAA Logistics Center will work with key customers continue to optimize functionality of Supply Chain Management

## **Target: Supply Chain Management Optimization**

The FAA Logistics Center will implement an automated (non telephonic) means for field technicians to submit Customer Service Actions (CSAs) to the FAALC

## **Target: Integrated Life Cycle and Supply Chain Management**

The FAA Logistics Center will complete data collection and analysis for chillers to support a lifecycle business case

## **Target: Supply Chain Management Optimization**

The FAA Logistics Center will complete coordination and publication of Order 4250.50 Supply Chain and Field Material Management

## **Target: Supply Chain Management Optimization**

FAA Logistics Center will develop a tracking system to show and measure delivery and return of E&R assets. This will improve inventory visibility and speed the repair cycle of critical assets and establish a base line to measure performance

# FY 2020 ATO Business Plan



## **Initiative: Management of Technical Operations**

Provide operational and financial management and oversight to the Technical Operations Service Unit.

### **Activity: Management of Technical Operations**

Provide operational and financial management and oversight to the Technical Operations Service Unit.

### **Target: Management of Technical Operations**

Provide operational and financial management and oversight to the Technical Operations Service Unit.

## **Initiative: Eastern Service Area (AJW-E)**

Executes the mission of Technical Operations Services: ensures effective NAS operation; establishes service unit goals, strategies budgets and priorities; allocates and manages resources; meets performance targets, and supplies services, as requested, to meet the requirements of the service units. Develops technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operations of the NAS. Completes scheduled activities to ensure optimal system availability.

### **Activity: Maintain facilities in the Eastern Service Area to ensure NAS reliability**

Complete scheduled activities to ensure optimal system availability

### **Target: Maintain facilities in the Eastern Service Area to ensure NAS reliability**

Track and maintain core airport NAS reliability of at least 99.7%.

## **Initiative: Central Service Area (AJW-C)**

Execute the mission of Technical Operations Services: Ensure effective NAS operation; establish Service Unit goals, strategize budgets and priorities; allocate and manage resources; meet performance targets, and supply services, as requested, to meet the requirements of the Service Units. Develop technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operation of the NAS. Complete scheduled activities to ensure optimal system availability and reliability.

### **Activity: Maintain facilities in the Central Service Area**

Complete scheduled activities of preventive maintenance, equipment modifications and restoration activities.

### **Target: Maintain facilities in the Central Service Area**

Track and maintain core airport NAS reliability of at least 99.7%.

# FY 2020 ATO Business Plan



## **Initiative: ARTCC Modernization - F06.01-00**

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 50 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.

### **Activity: ARTCC Modernization**

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 50 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 Twenty-Five (25) Major Modernization and Mission Critical Local Sustainment Projects.

## **Initiative: ATCT / TRACON Modernization - F01.01-00**

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.

### **Activity: ATCT / TRACON Modernization**

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 Modernization**

Complete 35 improvement projects per year that were initiated in previous years.

## **Initiative: Fuel Storage Tanks - F13.01-00**

The FAA Fuel Storage Tank (FST) Program replaces active bulk liquid and pressure vessel storage systems that support FAA operations across the NAS. The FST program's inventory includes over 3,000 TANK systems primarily supporting engine generator operations. Replacements are managed in accordance with a published lifecycle guideline.

# FY 2020 ATO Business Plan



## **Activity: Fuel Storage Tanks**

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 80 NAS storage tank systems selected in accordance with FST program and ATC Facilities' prioritization processes.

## **Initiative: FAA Buildings and Equipment Sustainment Support - Unstaffed Infrastructure Sustainment - F12.00-00**

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.

### **Activity: FAA Buildings and Equipment Sustainment Support - Unstaffed Infrastructure Sustainment**

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 Buildings and Equipment Sustainment Support - Unstaffed Infrastructure Sustainment**

Complete 92 unstaffed infrastructure sustainment projects.

## **Initiative: Power Systems Sustainment Support - F11.01-01**

The Electrical Power Systems Sustainment Support (PS3) (Power) program pursues the purchase and installation of components for backup electric power systems and power regulation and protection equipment. Backup electrical power systems are necessary to allow continued operation of air traffic control facilities when disruptions occur in commercial power sources. These disruptions can result in flights that remain grounded, are placed in airborne holding patterns, or are re-routed to other airports. Reliable backup power systems are installed so air traffic control electronics can maintain required availability and capability and prevent disruptions. These power systems also protect sensitive electronic equipment from commercial power surges and fluctuations. The Power program replaces, refurbishes, and renews 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.

# FY 2020 ATO Business Plan



## **Activity: NAS Batteries**

Batteries serve as a backup power source for key NAS facilities, including navigation aids and communications. Batteries provide power for a limited time during major power system disruptions and maintain the function of key systems while the NAS transitions to a safe level of reduced operation. The Power program sustains more than 4,000 battery installations with periodic replacement to ensure reliability.

### **Target: NAS Batteries**

Sustain existing NAS power systems by completing 85 battery replacement projects.

## **Activity: Uninterruptible Power Supply (UPS)**

A UPS is a device that conditions commercial power and prevents power disruptions and surges from adversely affecting electronic system performance. A UPS is necessary to ensure the continuity of air traffic control by preventing power disruptions to NAS critical infrastructure. The Power program currently sustains 552 UPS units with an expected service life cycle of 15 years. A significant portion of the UPS inventory requires replacement due to reliability and supportability issues attributable to age. UPS batteries require refurbishment on a 5, 7, or 20-year cycle, depending on type and manufacturer.

### **Target: Uninterruptible Power Supply (UPS)**

Sustain existing NAS power systems by completing 18 UPS replacement projects.

## **Activity: Direct Current BUS Power System (DC BUS)**

DC power systems are used to provide a low-cost, short-term alternative to an engine generator. They increase critical safety electronic system availability, which prevents commercial power disturbances of up to several hours from disrupting air traffic operations. The PS3 Program sustains 541 DC power systems with a service life cycle of up to 15 years.

### **Target: Direct Current BUS Power System (DC BUS)**

Sustain existing NAS power systems by completing 11 Direct Current Backup System (DCBUS) replacements projects.

## **Activity: ARTCC Critical and Essential Power Systems (ACEPS)**

The FAA operates power systems at 21 air route traffic control centers (ARTCCs). Because of the critical role of these enroute centers in the NAS any failure would cause a complete loss of critical power and loss of all air traffic control services. This includes automation, surveillance and communication services, and would result in the delays and cancellations. Each ACEPS has a useful service life of 20 years and a new installation would have a payback period of less than 6 months.

### **Target: ARTCC Critical and Essential Power Systems (ACEPS)**

Sustain existing NAS power systems by completing one total ARTCC critical and essential power system Type 2 phase 1 project.

# FY 2020 ATO Business Plan



## **Activity: Lightning Protection Grounding, Bonding, and Shielding (LPGBS)**

The LPGBS Program provides a systematic approach to minimizing electrical hazards to personnel, electromagnetic interference, and damage to FAA facilities and electronic equipment from lightning, transients, electrostatic discharge, and power faults. The requirements are considered the necessary minimum to harden sites sufficiently for the FAA missions of preventing delay or loss of service, minimizing or precluding outages, and enhancing personnel safety. Furthermore, the requirements for LPGBS have been coordinated with industry standards and in some cases, exceed industry standards where necessary to meet the FAA's missions.

### **Target: Lightning Protection Grounding, Bonding, and Shielding (LPGBS)**

Sustain existing NAS power systems by completing Lightning Protection Grounding, Bonding, and Shielding (LPGBS) sustainment projects at 4 facilities.

## **Activity: Power Cable**

Seventy-five percent of all power cables in the NAS are well beyond the condition and age in which commercial power companies would continue to operate. Initial cable installations were expected to last 30 years. The power cable replacement program aims to extend the life of newly installed cables to 60 years.

### **Target: Power Cable**

Sustain existing NAS power systems by completing 8 power cable replacement projects

## **Activity: Engine Generators**

Engine generators serve as a backup power source for essential NAS electronic systems when commercial power becomes unreliable due to a weather system, natural disaster, or other electrical outage beyond FAA control. The Power program sustains 3,565 NAS engine generators with a useful service life of 24 years.

### **Target: Engine Generators**

Sustain existing NAS power systems by completing 35 engine generator replacement projects.

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## **Initiative: Facility Security Risk Management (FSRM) - Two - F24.01-02**

The Facility Security Risk Management (FSRM) program was established in response to Presidential Decision Directive 63, Critical Infrastructure Protection (superseded by Homeland Security Presidential Directive 7, Critical Infrastructure Identification, Prioritization, and Protection), which required all Federal agencies to assess the risks to their critical infrastructure and take steps to mitigate risks. The program provides risk mitigation at all FAA staffed facilities, such as centers, towers, and terminal radar approach control (TRACON) facilities. The program provides an integrated security system that includes access control, surveillance, x-ray machines, metal detection, and intrusion detection. Other upgrades include adding guardhouses, visitor parking, fencing, perimeter hardening, window blast protection, and lighting. The FSRM Program also supports the FAA's response to HSPD-12: Policy for a Common Identification Standard for Federal Employees and Contractors and Public Law 106-528: Airport Security Improvement Act of 2000. The objectives of the program are to comply with the mandates, directives, and orders of the President, Congress, DOT, and the FAA. This includes the installation and maintenance of physical security systems and guard services at designated FAA facilities. This is accomplished through the Security System Design and Integration (SSDI), Corrective Maintenance Contract (CMC) II, and National Security Officer Services (NSOS) contracts.

### **Activity: Complete Technical Refresh Upgrades**

Complete technical refresh modernizations at security level 1 and 2 facilities, per FAA Order 1600.69

### **Target: Complete Technical Refresh Upgrades**

Complete technical refresh modernization at 10 sites.

## **Initiative: Mobile Asset Sustainment Program (MASP) - F31.01-01**

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.

### **Activity: Mobile Asset Sustainment Program (MASP)**

Design and build 2 Mobile Asset Staging Areas

### **Target: Design and build 2 Mobile Asset Staging Areas**

100% Construction Completion of the GSO Mobile Asset Staging Area Building

### **Target: Design and build Medium Mobile Air Traffic Control Tower**

Contract award of the medium mobile Air Traffic Control Tower Design/Build

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## **Initiative: Long-Range Radar Improvement - Infrastructure Upgrades / Sustainment - S04.02-03**

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 (e.g., Department of Defense and Homeland Security). As facilities reach the end of their 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.

### **Activity: Long-Range Radars**

Upgrade and sustain long-range radars.

#### **Target: Upgrade and sustain long-range radars**

Complete 15 total sustainment projects.

## **Initiative: The Real Property Disposition Program - F26.01-01**

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.

### **Activity: The Real Property Disposition Program**

Complete real property disposal for all service areas.

#### **Target: The Real Property Disposition Program**

Complete 75 real property disposition projects.

## **Initiative: Engineering Services**

Provides engineering services for the design, integration, construction, and installation of NAS hardware, software, and firmware. Includes Project Implementation and the Joint Acceptance Inspection program management. Implements the service areas' NAS expansion and modernization program. Manages the delivery of engineering services to other Service Units. Manages the Field Maintenance Program personnel and assets.

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## **Activity: Eastern Service Area ES (AJW-2E)**

Executes the mission of Technical Operations Services by ensuring effective NAS operation; establishing Service Unit goals, strategies, budgets, and priorities; allocating and managing resources; meeting performance targets, and supplying services, as requested, to meet the requirements of the Service Units. AJW-2E also develops technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operations of the NAS. In addition, AJW-2E completes scheduled activities to ensure optimal system availability. This includes Project Implementation and Joint Acceptance Inspection (JAI) Program Management.

### **Target: ESA Engineering Services**

Ensure 75% of assigned projects are on-time in accordance with the current baseline scope agreement.

## **Activity: Central Service Area ES (AJW-2C)**

Executes the mission of Technical Operations Services by ensuring effective NAS operation; establishing Service Unit goals, strategies, budgets, and priorities; allocating and managing resources; meeting performance targets, and supplying services, as requested, to meet the requirements of the Service Units. AJW-2C also develops technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operations of the NAS. In addition, AJW-2C completes scheduled activities to ensure optimal system availability. This includes Project Implementation and completion in accordance project scope agreement.

### **Target: CSA Engineering Services**

Ensure 75% of assigned projects are on-time in accordance with the current baseline scope agreement.

## **Activity: Western Service Area ES (AJW-2W)**

Executes the mission of Technical Operations Services by ensuring effective NAS operation; establishing Service Unit goals, strategies, budgets, and priorities; allocating and managing resources; meeting performance targets, and supplying services, as requested, to meet the requirements of the Service Units. AJW-2W also develops technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operations of the NAS. In addition, AJW-2W completes scheduled activities to ensure optimal system availability. This includes Project Implementation and Joint Acceptance Inspection (JAI) Program Management.

### **Target: WSA Engineering Services**

Ensure 75% of assigned projects are on-time in accordance with the current baseline scope agreement.

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## **Initiative: AJW-13 NAS Integration and Support Group**

Oversee Capital Investment Programs along with NEXTGEN integration and implementation of systems in the NAS. We provide the policies, management visibility, and processes for Technical Operations lifecycle management support for NAS systems through initial acquisition, solution implementation, and receipt, installation, maintenance, and final disposition of equipment. We provide tracking and control, maintenance operational concepts, maintenance policies, sustainment requirements, Human Systems Integration, remote maintenance monitoring requirements and supply support requirements to the Program Management Office, NEXTGEN Office and Mission Support Organizations.

### **Activity: Maintenance Support Program**

Field Spares Program

#### **Target: Field Spares Program**

Visit, mark, train and record field spare inventories at least 4 per quarter at GNAS facilities.

### **Activity: Maintenance Support Program**

Spare parts are managed through the Field Spares Inventory Program (FSI) and Supply Chain Optimization (SCO).

#### **Target: Shared Service Partnership Agreement**

Complete alignments of 30 each ASR facilities to True North.

## **Initiative: AJW-14 National Test Equipment Program M17.01-01**

The National Test Equipment Program (NTEP) is responsible for the purchase, calibration, maintenance, and management of FAA test equipment at over 41,000 sites. The program ensures the NAS equipment operates within technical and safety specifications. The test equipment is used by technicians to troubleshoot, repair, and certify new and legacy systems. Operational NAS systems must be certified by this test equipment before being returned to service.

### **Activity: National Test Equipment Program (NTE)**

Test Equipment

#### **Target: National Test Equipment Program**

If JRC funding is provided, 150 pieces of Test Equipment will be delivered to the Service Areas.

## **Initiative: AJW-1C2 Spectrum Assignments and Engineering Team (WA8D200000)**

Manages and coordinates the daily use of the aeronautical radio frequencies in the United States for all FAA, non-Federal, Military, and other Federal agencies. Manages and develops policies for the electromagnetic compatibility portion of the Obstruction Evaluation / Airport Airspace Analysis Program (OE/AAA). Performs electromagnetic analyses to protect NAS systems from DoD operations. Develops frequency engineering models and maintains the Automated Frequency Management System. Provides radio frequency assignment support of NextGen initiatives.

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## **Activity: Manage Radio Frequency Assignments**

Manage radio frequency spectrum to satisfy NAS requirements.

### **Target: Manage Radio Frequency Assignments**

For 90% of FAA frequency requirements, obtain Frequency Transmit Authorizations (FTA's) from NTIA within 90 days from the time that the requirement is identified.

### **Target: Manage Radio Frequency Assignments**

Provide a response to 90% of radio frequency coordination requests within 30 days from the date that a complete coordination request package is received

### **Target: Manage Radio Frequency Assignments**

Complete the development of and implement to production the capability for personnel at all FAA facilities that require Frequency Transmit Authorizations (FTA's) to be able to complete modifications/updates, delete actions, and initiate action for new FTA requirements through the WebFTA internet portal.

### **Target: Manage Radio Frequency Assignments**

Continue coordination with DoD, DHS, and DOE on the rewrite of chapter 7 of the NTIA manual. If NTIA is amenable, a rewrite of the draft will be submitted to the IRAC for approval.

## **Initiative: AJW-1B NAS QUAL ASSURANCE & PERF GROUP (WA8E00000)**

The Quality Assurance and Performance Division has two main functions -- Quality Assurance and Performance Analysis. We strive to ensure a safe and efficient National Airspace System (NAS) through the effective management and operation of the infrastructure, providing quality service delivery and optimal utilization of resources. We provide FAA management with information to make decisions supporting safe, effective, and efficient operation of the NAS.

## **Activity: National Oversight to the NASTEP Program**

Provide national oversight to the NAS Technical Evaluation Program.

### **Target: NAS Technical Evaluation Program**

Ensure 10% of NASTEP eligible Tech Ops facilities are visited annually.

## **Activity: Improve NAS Performance Reporting Policies**

Develop and/or improve NAS performance policy compliance.

### **Target: Improve NAS Performance Reporting Policies**

Review and validate accuracy of 10% of all the National Airspace Performances Reporting System desk guides and Line Frequency (LF) example sheets.

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## **Target: Improve NAS Performance Reporting Policies**

Complete 3 Control Center Line Frequency audits to verify accurate LF records are compliant with policy.

## **Target: Create/Update five reports for the Tech Ops Toolbox (TOT).**

Create/Update five reports for the Tech Ops Toolbox (TOT).

## **Activity: National Oversight to the RMLS Program**

Provide e-Technical Performance Record functionality in Remote Monitoring and Logging System tool.

## **Target: National Oversight to the RMLS Program**

Develop and validate accuracy of 25% the GEMPOP equipment populated profiles for the RMLS Program.

## **Initiative: AJW-17 Communications, Flight Services & Weather Engineering Group**

Technical refresh for the remote monitoring and logging system (RMLS)

## **Activity: Remote Monitoring and Logging System - Technical Refresh**

Administer technical support to manage and maintain NAS systems. Provide technical assistance for restoration/on-site requests when required.

## **Target: Administer Technical Support to Manage and Maintain NAS Systems**

RMLS Tech Refresh, Complete all 23 NRN facilities Phase 2 site surveys

## **Target: Provide Technical Assistance for Restoration/On-site requests when required.**

RMLS Tech Refresh, Complete Technology Refresh Installation Phase 1 (SSM-RMLS-063) at the Oklahoma City Training facility

## **Target: Administer Technical Support to Manage and Maintain NAS Systems**

RMLS Tech Refresh, Complete Operational Test & Evaluation (OT&E) for NRN

## **Target: Administer Technical Support to Manage and Maintain NAS systems**

RMLS Tech Refresh, Submit Technology Refresh Phase 2 requirements into Corporate Work Plan (CWP) for all 23 NRN facilities

## **Initiative: AJW-1 Technical Operations - Operational Risk Management**

Increase focus on Operational Risk Management and operational awareness among service providers while performing NAS activities.

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## **Activity: Operational Risk Management**

Increase focus on Operational Risk Management and operational awareness among service providers while performing NAS activities.

### **Target: Operational Risk Management**

Increase focus on Operational Risk Management and operational awareness among service providers while performing NAS activities. Distribute 8 infORM documents this fiscal year. Provide 10 ORM briefings to Tech Ops and other LOB organizations.

### **Target: Operational Risk Management**

Increase focus on Operational Risk Management and operational awareness among service providers while performing NAS activities. Plan, develop, and conduct one Operational Safety Focus Event

### **Target: Operational Risk Management**

Provide input and ORM subject matter support to complete draft (first course conduct) of instructor led training of Operational Risk Management for Air Traffic and System Operations to the Controller In Charge (CIC) level for AJT and to the appropriate level in AJR.

### **Target: Operational Risk Management**

Provide input and ORM subject matter support to define and identify criteria for "Safety Events for Technical Operations". Develop supporting language and identify the proper order/notice to contain the language.

## **Initiative: AJW-1X Resiliency - Disaster Preparedness**

Resiliency: continue to harden facilities and systems and to improve our emergency response capabilities for situations such as hurricanes, wildfires, and large-scale power outages.

### **Activity: Resiliency**

Expand the Beta version of the National Airspace System Resiliency Model & Develop National Airspace System Resiliency Model

### **Target: Resiliency**

Update the DOT Risk Registry with Risk approaches, responses, and mitigations/controls using the resiliency model.

### **Target: Resiliency**

Expand Operational Response Index (ORI) to incorporate Terminal Facilities. Complete Hot Wash for one ARTCC Level 3 & 4 Operational Contingency Plan (Air Space Divestment Plan) and develop Tech Ops OCP Standard Operating Procedures. Conduct a Resiliency Model Pilot with IP&A for a single F&E program during FY22 budget formulation. Transfer Contingency Equipment logistic support/shipping responsibility to AML. Expand NAS resiliency Model to include critical Enterprise Systems/Services

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## **Initiative: AJW-1X Technical Services Group**

### Policy

#### **Activity: Develop and update NAS Operational Policies**

Develop and update NAS Operational Policies to provide consistent governance of the maintenance and operation of the NAS.

#### **Target: Develop and update NAS Operational Policies to provide consistent governance of the maintenance and operation of the NAS.**

- 1 - Complete national coordination and comment adjudication of 6000.15J, 6030.30, 6700.20C, 6000.36B.
- 2 - Complete updated draft, internal comment adjudication, and initiate national coordination of 6000.30.
- 3 - Complete comment adjudication and implementation of 6000.50E.
- 4 - Develop workgroup of SMEs and complete initial draft policy update and internal coordination of 6010.7.
- 5 - Complete Phase III and Final phase of Non-Fed tool.

#### **Activity: Unmanned Aircraft System & EnRoute Communications**

Assess impact of Unmanned Aircraft Systems (UAS) on NAS infrastructure and the application of UAS technologies for potential maintenance and inspection tasks & Assess validity and effectiveness of communication service management concept.

#### **Target: Assess validity and effectiveness of communication service management concept.**

Complete table-top exercise for EnRoute Communications by end of FY20

#### **Target: Assess impact of Unmanned Aircraft Systems (UAS) on NAS infrastructure and the application of UAS technologies for potential maintenance and inspection tasks.**

Conduct engineering study assessing the impact of UAS activity at or below 400' above ground level (AGL) on NAS infrastructure by end of FY20. Establish AJW-1X Tech Ops Use Case Development Workgroup that investigates the need for Tech Ops using UAS for maintenance and inspection, to include how the UAS should be piloted.

## **Initiative: Network Operations Group, AJW-B100**

Provide operational oversight and maintenance of assigned global enterprise systems and networks supporting the aviation community.

#### **Activity: WAAS Team, AJW-B160**

Provide operational oversight and maintenance of assigned Wide Area Augmentation System (WAAS) East/West global enterprise systems/networks and mitigate impact to the NAS for both scheduled and unscheduled events.

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## **Target: WAAS Team, AJW-B160**

In accordance with 6000.15, the Wide Area Augmentation System (WAAS) Operations Teams will perform site inspections of 7 facilities with FAA owned equipment and leased services located at contractor and international sites.

## **Target: WAAS Team, AJW-B160**

Complete a minimum of 98% of WAAS certifications within identified schedules and conditions.

## **Target: WAAS Team, AJW-B160**

Complete 95% of all assigned preventative maintenance tasks for the WAAS O&M Subsystem (WOMS) and associated logging requirements as specified in Order JO 6882.2A Maintenance of Wide Area Augmentation System.

## **Activity: Operations Teams, AJW-B110, B120, B130**

Provide operational oversight of Network Enterprise Management Center assigned global enterprise systems/networks and maintain services.

## **Target: Operations Teams, AJW-B110, B120, B130**

Maintain FAA Weather and Flight Movement products and maintain operational availability of the NAS Message Replacement (NMR) and Weather Message Switching center Replacement (WMSCR) services at/or above 90.% (combined average).

## **Initiative: Telecommunications Group, AJW-B200**

Ensure that FAA owned and leased telecommunications services meet or exceed customer expectations. Provide a single point of contact for telecommunications and operational oversight of assigned global enterprise systems and networks while continuing to support legacy services to the aviation community.

## **Activity: FAA Telecommunications Services, AJW-B200, AJW-B210, AJW-B220, AJW-B230, AJW-B240**

Improve the availability and reliability of customer telecommunications services while mitigating the impact of telecommunications outages on the NAS. Serve as the single focal point for all telecommunications issues. Liaison between the Program Management Office (PMO) and the field to ensure the field is able to manage all new and existing services.

## **Target: FAA Telecommunications Services, AJW-B200, AJW-B210, AJW-B220, AJW-B230, AJW-B240**

Ensure that the FAA Telecommunications Infrastructure (FTI) network meets or exceeds an aggregate availability of .9999 for dual-threaded NAS operational services.

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## **Initiative: National Operations, AJW-B300**

Provide programmatic Technical Operations, leadership in the following areas: facility incident response; ATSAP; TSAP; program emergency operations; COOP: National Aircraft Accident Response; TechNet; modification tracking; strategic event coordination; Maintenance moratoria; maintenance alerts; international outreach; system administration; GPS Coordination and oversight to category C or D runway incursions.

### **Activity: Enterprise Control Center, AJW-B350**

The Enterprise Control Center Team is responsible for the oversight and NAS impact mitigation of emerging NextGen services. The team is comprised of (3) specialized units providing subject matter expertise and support in their assigned discipline, the SWIM Enterprise Control Center (SECC) located in Hampton, GA, the Voice and Data Communications Enterprise Control Center (VECC) in Olathe KS, and the Navigation and Surveillance Enterprise Control Center (NECC) in San Diego, CA.

#### **Target: Enterprise Control Center, AJW-B350**

SWIM Enterprise Control Center (SECC) to assist with monitoring and logging of Low Altitude Authorization & Notification Capability (LAANC) events for nine (9) new User Subscriber Services (USS), and support of LAANC services to Non-Federal Air Traffic Control Towers.

#### **Target: Enterprise Control Center, AJW-B350**

SWIM Enterprise Control Center (SECC) to monitor and log events for Common Support Services - Weather (CSS-Wx), Aeronautical Information Management Modernization (AIMM), NAS Common Reference (NCR), Terminal Flight Data Manager (TFDM).

#### **Target: Enterprise Control Center**

Voice and Data Communications Enterprise Control Center (VECC) to assist with rollout, implementation, monitoring, and logging of enroute controller-pilot data link communications (CPDLC) events

#### **Target: Enterprise Control Center**

Navigation and Surveillance Enterprise Control Center (NECC) to assume all Automatic Dependent Surveillance-Broadcast (ADS-B) and Wide Area Multilateration (WAM) service monitoring, logging, and NOTAM management. NECC will assume reporting of GPS anomalies and elevated solar events

### **Activity: NAS Cyber Operations, AJW-B360**

The NCO ensures the integrity, availability and security of the NAS through cyber security monitoring, incident detection and response, and collaborative analysis to minimize cybersecurity risk to acceptable levels as determined by the Authorizing Official (AO)/AODR (Authorizing Official Designated Representative).

#### **Target: NAS Cyber Operations, AJW-B360**

Maintain NAS Cyber Operations monitoring capability of at least 99%.

# FY 2020 ATO Business Plan



## **Initiative: NAS Information Security Group, AJS-B400**

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. These services provide the agility necessary for the ISS environment, while complying with public law and supporting aviation safety and efficiency goals.

### **Activity: Complete Information System Security Documents and Testing**

Provide risk management system authorization, governance, and testing for NAS cyber operations.

#### **Target: Complete Information System Security Documents and Testing**

Conduct security testing on 80% of FISMA Reportable Systems that are testable

#### **Target: Complete Information System Security Documents and Testing**

Complete 80% of SARs (Authorization Documents) on FISMA Reportable Systems

#### **Target: Complete Information System Security**

Update the ATO Information Security Continuous Monitoring Plan (ISCM) to address penetration testing on FIPS-199 "High" systems

#### **Target: Complete Information System Security**

Deploy policy-compliant optical combination shredders to TRACONS, Super TRACONS, and other locations

#### **Target: Complete Information System Security**

Establish the RMAG pre-production system at the FTI National Testbed (FNTB) environment located in Atlantic City, New Jersey

#### **Target: Complete Information System Security**

Complete 80% of internal core network virtualization, container, and storage improvements at WJHTC

#### **Target: Complete Information System Security**

Complete 70% of internal core network installations at MMAC

## **Initiative: Operations Programs, AJW-B600**

Support NEO business operations through effective formulation and execution of funds, efficient resource utilization, and by administering proper certification, safety and required training needs. Provide tactical operational coordination to support NAS Operations and emergencies. Provide programmatic support to NAS operations and systems and improve strategic safety reporting and communications. Promote a safe and secure NAS by enhancing information security systems and identifying safety risk management processes.

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## **Activity: Tactical Operations Programs, AJW-B620**

Provide tactical operational program support to NAS Operations in such areas as: Technical Operations Aircraft Accident (TOAAR) Program; Technical Operations National Field Incident Response (FIR) Program; Technical Operations' Headquarters Continuity of Operations (COOP) Program; Strategic Event Coordination (SEC) Program; Infrastructure Services as Needed (ISAN) component of the ATO Efficiency Report Online (AERO) portal; National Maintenance Alert (NMA) and Maintenance Moratorium Program; the Equipment Related Delays, Significant Event Report (SER), Lessons Learned, and Surface Incidents Programs; Technet.faa.gov portal; and the maintenance of the Remote Monitoring and Logging System (RMLS) National Operations Control Center (NOCC) Node and Data Repository, NASEO Configuration Management.

### **Target: Tactical Operations Programs, AJW-B620**

Conduct a Field Incident Response (FIR) program review with each of the Service Areas and update programs based on updated Order

### **Target: Tactical Operations Programs, AJW-B620**

Implementation of the newly signed Order 6030.41 Notification of Facility and service Interruptions and other Significant Events.

### **Target: Tactical Operations Programs, AJW-B620**

Conduct an Aircraft Accident program review with each of the three Operational Control Centers (OCC). Deliver the "Technical Operations Response to Aircraft Accident" course to required OCC Team Leads. Support AJI in the final development of the new Technical Operations Field Response to Aircraft Accidents eLMS course

### **Target: TACTICAL OPERATIONS PROGRAMS**

Administer one annual national Strategic Event Coordination (SEC) committee meeting. Support AJI in the final development of the new Ground Based NavAids for the NAS (GBNN) eLMS course.

### **Target: TACTICAL OPERATIONS PROGRAMS**

Complete 95% of all assigned preventative maintenance tasks, and 100% of all modifications for NOCC RMLS Node and Data Repository

## **Initiative: Flight Program Operations**

Perform airborne inspection of civil and military NAVAIDS; perform flight validation/certification of Instrument Flight Procedures (IFPs); and provide services to NextGen programs and other FAA and non-FAA project sponsors that require flight inspection support.

### **Activity: Flight Program Operations (NAS maintenance/sustainment)**

Conduct periodic and special maintenance inspections of civil and military NAVAIDS as required by FAA Order 8200.1, U.S. Standard Flight Inspection Manual. Conduct flight validation/certification of original and amended Instrument Flight Procedures (IFPs).

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## **Target: Flight Program Operations (NAS maintenance/sustainment)**

Complete 93% of unscheduled restoral inspections at focus airports within 48 hours when requested by Air Traffic Services (AJT).

## **Target: Flight Program Operations (NAS maintenance/sustainment)**

Complete 97% of all periodic flight inspections at focus airports before the expiration date of the periodic interval.

## **Initiative: Engineering and Infrastructure Services**

Develop Architecture Review Boards packages.

### **Activity: Enterprise Engineering and Infrastructure Services**

Develop Architecture Review Boards packages.

### **Target: Enterprise Engineering & Infrastructure Services**

Convert carrier implemented Pseudowire over carrier Ethernet to Harris FTI Pseudowire over carrier Ethernet at 3 of 7 sites to add FAA security controls.

### **Target: Enterprise Engineering & Infrastructure Services**

Develop 20 Architecture Review Board (ARB) packages and conduct 10 ARB meetings in providing engineering services to support major program APB milestones.

### **Target: NAS Integration and Infrastructure Solutions - International AFTN to AMHS**

Transition Bahamas legacy Aeronautical Fixed Telecommunications Network (AFTN) to Air Traffic Services Message Handling System (AMHS).

### **Activity: National Cloud Integration Service (NCIS)**

Create initial commoditized costing guide for PMO Cloud Services.

### **Target: National Cloud Integration Service (NCIS)**

Create initial commoditized costing guide for PMO Cloud Services.

### **Target: National Cloud Integration Service (NCIS)**

Establish TFM Data Warehouse in Cloud environment and conduct testing.

## **Initiative: Security Authorization**

Conduct activities for CINP security authorization packages.

### **Activity: Security Authorization Packages**

Complete Security Authorization Packages

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## **Target: Security Authorization**

Complete and submit 80% of ISSE managed documents required for CINP system security authorization packages (including new systems if funding / staff is provided as needed).

## **Initiative: Western Service Area (AJW-W)**

Execute the mission of Technical Operations Services: Ensure effective NAS operation; establish Service Unit goals, strategize budgets and priorities; allocate and manage resources; meet performance targets, and supply services, as requested, to meet the requirements of the Service Units. Develop technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operation of the NAS. Complete scheduled activities to ensure optimal system availability and reliability.

### **Activity: Maintain facilities in the Western Service Area**

Complete scheduled activities of preventive maintenance, equipment modifications and restoration activities.

### **Target: Maintain facilities in the Western Service Area**

Track and maintain core airport NAS reliability of at least 99.7%.

## **Initiative: ATCT / TRACON Replacement F01.02-00**

Air Traffic Control Tower and Terminal Radar Approach Control (replacement)

### **Activity: ATCT / TRACON Replacement (F01.02-00)**

Complete electrical installation at Charlotte (CLT).

### **Target: ATCT / TRACON Replacement (Charlotte, CLT)**

Complete electronics installation to include STARS, TVS, DALR and TFDM at Charlotte (CLT).

## **System Operations and Performance**

Enhance reliable and efficient movement of people and goods by promoting effective management and ensuring leadership in securing data and in sharing information across the transportation system.

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### **Initiative: Average Daily Capacity**

Maintain an average daily capacity for core airports arrivals and departures.

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## **Activity: Airport & Airspace Analysis**

Responsible for reviewing and evaluating NAS performance and analyzing airport/airspace capacity. The group will be responsible for reviewing daily how the NAS performed the previous day and identify systematic trends. The group will also analyze and track the impacts that construction or other planned system impacts will affect airport and NAS efficiency and capacity.

### **Target: Annual Service Volume Studies**

Complete one annual service volume study at San Francisco International Airport (SFO) and one annual service volume study at Hartsfield-Jackson Atlanta International Airport (ATL).

### **Target: Simulation Modeling and Analysis**

Support the ATO focal point (AJR-1). Coordinate the one year and three year outlook of planned airport construction activities and potential impacts by conducting simulation modeling and analysis of construction projects. Deliver interim technical briefings and reports, participating in monthly and quarterly meetings at various airports including Los Angeles International Airport (LAX), Ft. Lauderdale International Airport (FLL), Chicago O'Hare International Airport (ORD) and the New York Metropolitan area airports.

### **Target: Modeling and Analysis Support**

Provide modeling and analysis to other organizations in support of cross cutting initiatives as requested and agreed.

### **Target: Average Daily Capacity**

Maintain an average daily capacity for core airports of 58,388, or higher, arrivals and departures.

### **Target: Achieve NAS On-Time Arrivals**

Achieve a NAS on-time arrival rate of 88% at Core airports and maintain through FY 2020.

### **Target: Monitor On-Time Arrivals**

Monitor On-Time Arrival rates at Core airports.

### **Target: Airport Construction Analysis and Reporting**

Coordinate and produce the quarterly U.S. Core 30+ Airports 3-Year Construction Outlook report. Collect, review and analyze airport construction data and information from the AJR Deputy Directors of System Operations offices and other lines of business. Determine potential impacts to airports and the NAS. Create and distribute the report in quarterly intervals. Brief the one year outlook, including potential impacts on a monthly basis.

# FY 2020 ATO Business Plan



## **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 technology refresh for the automation system was completed in 2009 for all three operational sites and the WJHTC labs. This technology refresh activity increased system performance, capacity, and usability at that time. The ATOP program continued to deliver safety and efficiency enhancements through FY 2018 for evolutionary improvements to the ATOP system.

### **Activity: Advanced Technologies and Oceanic Procedures (ATOP) S2, A10.03-01**

The ATOP Sustainment 2 program, formally known as ATOP Tech Refresh 2, will procure and replace the current hardware, upgrade the operating system from AIX to Linux, and integrate the new technology with the baseline ATOP applications. ATOP Technology Refresh reduces maintenance and logistics costs, and supports incorporation of software changes and new capabilities to support future NextGen, Surveillance and Broadcast Service (SBS), and other NAS improvements.

#### **Target: Advanced Technologies & Oceanic Procedures (ATOP) Sustainment 2 (S2) - T28 Release (Performance Improvements) available for Operational Use.**

Advanced Technologies & Oceanic Procedures (ATOP) Sustainment 2 (S2) - T28 Release (Performance Improvements) available for Operational Use.

#### **Target: Advanced Technologies & Oceanic Procedures (ATOP) Sustainment 2 (S2) - Third Site Operational.**

Advanced Technologies & Oceanic Procedures (ATOP) Sustainment 2 (S2) - Third Site Operational.

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

Advanced Technologies and Oceanic Procedures (ATOP) - Enhancement 1.

#### **Target: Advanced Technologies & Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release 29 Software Hand-Off to Test Complete.**

Advanced Technologies & Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release 29 Software Hand-Off to Test Complete.

## **Initiative: Traffic Flow Management System (TFMS) Enhancement 4**

TFMS Enhancement 4 is developing two capabilities, Improved Demand Predictions (IDP) and Integrated Departure Route Planner (IDRP). IDP will improve TFMS demand prediction of air traffic NAS resources. IDRP will deliver strategic/tactical forecasts of departure route and fix status due to convective weather and volume for specific terminals. It provides traffic managers with semi-automated resolution algorithms to "solve" departure constraints.

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## **Activity: Traffic Flow Management System (TFMS) Enhancement 4, G05A.05-03**

TFMS adds new capabilities and improvements via the TFMS Enhancement process. TFMS Enhancement 4, approved by the FAA Joint Resources Council (JRC) on June 21, 2017, will provide new NextGen Midterm TFM/CATM capabilities between FY 2017 and FY 2024. Improved Demand Prediction (IDP) will improve TFMS demand prediction. Integrated Departure Route Planning (IDRP) will be adapted for six metroplex areas: New York (N90); Chicago (C90); Dallas (D10); Philadelphia (PHL); Potomac - DC Metro (PCT)); and Southern California (SCT). TFMS Ingestion of Weather Data will replace the legacy Corridor Integrated Weather System (CIWS) Data Distribution System (CDDS) prototype with the new System Wide Information System (SWIM) Common Support Services - Weather (CSS-Wx) service.

## **Target: Traffic Flow Management System (TFMS) Enhancements 4 (E4) - Integrated Departure Route Planning (IDRP) System Design Review (SDR) completed.**

Traffic Flow Management System (TFMS) Enhancements 4 (E4) - Integrated Departure Route Planning (IDRP) System Design Review (SDR) completed.

## **Initiative: Traffic Flow Management System (TFMS) Sustainment 2**

TFMS Sustainment 2 will replace TFMS equipment at air traffic facilities. The support of the current field equipment ended in 2014 and now requires in-kind hardware replacement for a technology refresh. Hardware will be replaced at 89 Traffic Flow Management (TFM) equipped Air Traffic Control facilities around the country including Traffic Management Units (TMUs) at En Route Centers, Terminal Radar Facilities, Air Traffic Control Towers, and the prime contractor site. The program achieved Final Investment Decision on June 18, 2014.

## **Activity: Traffic Flow Management System (TFMS) Sustainment 2, A05.01-13**

Per the signed decision from the FAA Acting Administrator dated June 11, 2018, TFMS Sustainment 2 should continue on its original baselined schedule and report the delta as a schedule variance.

## **Target: Traffic Flow Management System (TFMS) Sustainment 2 (S2) - Complete installation of Traffic Flow Management Remote Site (TRS) equipment at last operational site.**

Traffic Flow Management System (TFMS) Sustainment 2 (S2) - Complete installation of Traffic Flow Management Remote Site (TRS) equipment at last operational site.

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## **Initiative: ASR-11 - Sustainment 2**

The ASR-11 Technology Refresh program replaces and upgrades obsolete ASR-11 Commercial Off-The-Shelf (COTS) hardware and software to ensure the continued reliable and cost effective operation of the radar system through its designated lifecycle. This is an ongoing program to address obsolescence and maintenance issues and will be accomplished in separate sequential 5-year segments. The ASR-11 Sustainment 2 addresses the following shortfalls identified in the approved ASR-11 Sustainment 2 Implementation Strategy and Planning Document: 1) Site Control Data Interface (SCDI) /Operator Maintenance Terminal (OMT) obsolescence. 2) Uninterruptible Power Supply (UPS) capacitor at end of life expectancy. 3) Bring the ASR-11 Radar up-to-date in meeting current Occupational Safety & Health Administration (OSHA) safety regulations. The Sustainment 2 Final Investment Decision (FID) was approved in December 2013 and In Service Decision (ISD) was achieved on August 7, 2018. Sustainment 2 deployment activities are planned to be completed by September 2020. This initiative also includes planning for ASR-11 Sustainment 3. Sustainment 3 has a planned IARD in Q1 of FY20 and FID in Q1 of FY21.

### **Activity: Solution Implementation for ASR-11 Sustainment 2, S03.02-05**

Solution Implementation for ASR-11 Sustainment 2.

#### **Target: ASR-11 Sustainment 2 (S2) - Last site certified for operational use.**

ASR-11 Sustainment 2 (S2) - Last site certified for operational use.

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

Solution Implementation for ASR-11 Sustainment 3.

#### **Target: Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 - Complete Investment Analysis Readiness Decision (IARD) Life Cycle Cost Estimate (LCCE) Rough Order Magnitude (ROM).**

Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 - Complete Investment Analysis Readiness Decision (IARD) Life Cycle Cost Estimate (LCCE) Rough Order Magnitude (ROM).

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## **Initiative: Standard Terminal Automation Replacement System - Sustainment 1**

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. The STARS is a digital processing and display system that replaces the aging air traffic control equipment at our Automated Radar Terminal System (ARTS) IIIA and other high activity Terminal Radar Approach Control (TRACON) facilities and airport traffic control towers. 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. The final TAMR Phase 1 site was completed in June 2010 with the installation of STARS equipment at the newly-constructed Dayton Tower facility. The 47 STARS baseline deployments are complete, and STARS is in the Hardware Technology Refreshment phase of its life cycle. This investment is part of a phased approach to modernizing our terminal air traffic control equipment. The program updates existing TRACONs and towers with state-of-the-art systems featuring high-resolution LCD color displays, processors, storage devices, and enhanced memory. Communications lines are upgraded to accommodate the increased data requirements as a result of the upgrade and system performance requirements. The system is expandable to accommodate future air traffic growth and new hardware. TAMR STARS Sustainment 1 technology refresh is necessary to address technology, mobility, and security gaps with the existing systems. Planning for technology refreshment 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. Technical Refresh is needed to address changes in hardware and to

### **Activity: Standard Terminal Automation Replacement System Sustainment 1, A04.01-01**

Complete critical activities to PMOs Marquee Programs.

### **Target: Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 1 (S1) - Complete Initial Operational Capability (IOC) at last site (48th site).**

Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 1 (S1) - Complete Initial Operational Capability (IOC) at last site (48th site).

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## **Initiative: ASR-9 Sustainment 2**

The Airport Surveillance Radar Model 9 (ASR-9) provides aircraft target and weather information to air traffic controllers, which reduces delays and improves safety at high activity airports. The ASR-9 tracks all aircraft within its range and provides those tracks, as well as six-level weather intensity information, to terminal automation systems. Air traffic controllers utilize this information to safely and efficiently separate aircraft in the terminal environment. The ASR-9 also provides data to AMASS and ASDE-X to aid in the prevention of accidents resulting from runway incursions. Without modifications to the ASR-9, the system will continue to experience decreasing reliability and availability over time. The supportability of the ASR-9 system is at risk due to the lack of commercial availability of some components. The ASR-9 was procured in the mid-1980s and fielded between 1989 and 1994. The system is expected to remain operational until 2035; however, the radar systems are becoming difficult to maintain. The system uses hardware and software architectures which are becoming increasingly difficult to procure, and some of which are obsolete, resulting in cannibalization and re-engineering for short-term results as a means to repair or refurbish in order to maintain this vital system. The Sustainment 2 Final Investment Decision (FID) was approved on June 27, 2012 to address obsolescence and supply/support issues of system Lowest Replaceable Units (LRUs) and components within the ASR-9 system. The sustainment of the ASR-9 aligns with the NAS Enterprise Architecture Surveillance Roadmap Decision Points. Based on this strategy ASR-9 systems will remain in service through 2035.

### **Activity: ASR-9 Sustainment 2, S03.01-09**

Solution Implementation for ASR-9 Sustainment 2.

### **Target: ASR-9 Sustainment 2 (S2) - Installation at last site completed.**

ASR-9 Sustainment 2 (S2) - Installation at last site completed.

## **Initiative: Terminal Automation Modernization Replacement (TAMR) (P4)**

Replaces 91 ARTS IIE and six ARTS IE systems with STARS hardware, software, and displays at all Terminal Radar Approach Control (TRACONS) and their associated Airport Traffic Control Towers (ATCTs) by 2019, and enables ADS-B capabilities for controllers. TAMR Phase 4 will complete the convergence to a single automation platform in the Terminal domain.

### **Activity: Terminal Automation Modernization Replacement (TAMR) (P4), A04.07-02**

Complete critical activities to PMOs Marquee Programs.

### **Target: Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete Operational Readiness Date (ORD) at last site (ARTS IE).**

Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete Operational Readiness Date (ORD) at last site (ARTS IE).

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## **Target: Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete 6 of 14 DRD Equipment Deliveries.**

Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete 6 of 14 DRD Equipment Deliveries.

## **Target: Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete 45 of 82 Extreme Router Equipment Deliveries.**

Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete 45 of 82 Extreme Router Equipment Deliveries.

## **Target: Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete 25 of 82 Site Surveys.**

Terminal Automation Modernization and Replacement (TAMR) Phase 4 (P4) - Complete 25 of 82 Site Surveys.

### **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.

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## **Target: Terminal Flight Data Manager (TFDM) - Build 1 Independent Operational Assessment (IOA).**

Terminal Flight Data Manager (TFDM) - Build 1 Independent Operational Assessment (IOA).

## **Target: Terminal Flight Data Manager (TFDM) - Build 1 Key-Site Initial Operational Capability (IOC).**

Terminal Flight Data Manager (TFDM) - Build 1 Key-Site Initial Operational Capability (IOC).

## **Target: Terminal Flight Data Manager (TFDM) - Build 1 Operational Test (OT) complete.**

Terminal Flight Data Manager (TFDM) - Build 1 Operational Test (OT) complete.

## **Initiative: Airborne Collision Avoidance System - X (ACAS X)**

ACAS X is being developed to meet future collision avoidance requirements. The program will replace the existing Traffic Alert and Collision Avoidance Systems II (TCAS II) that is required in the U.S. airspace for all commercial aircraft with 30 or more seats and on all cargo aircraft greater than 33,000 pounds. ACAS X will reduce the number of nuisance Resolution Advisories (RA) in U.S. airspace and better support future operations.

The ACAS X system will address shortfalls in the legacy TCAS II system. First, the system architecture will be designed so that threat detection and resolution logic changes can be made quickly using an automated process, which will be useful for future adaptations to Next Generation Air Transportation System (NextGen) operations. Second, ACAS X will have enough flexibility to be able to accommodate a variety of sensor types, including new generations of sensors where necessary. Third, ACAS X will reduce the number of “nuisance alerts” while simultaneously providing a reduced probability of near mid-air collision. The ACAS X systems have three variants in active development:

- ACAS Xa: Will use active interrogations and replies in concert with passive reception of ADS-B information to perform surveillance; ACAS Xa is the variant of ACAS X most similar to TCAS II in its form and function
- ACAS Xo: For use with NextGen operations where other variants of ACAS X would generate unacceptably high rates of RAs if used; an example of such an operation would be Closely-Spaced Parallel Operations (CSPO)
- ACAS Xu: For use with Unmanned Aircraft Systems (UAS), it is a complete Detect and Avoid (DAA) solution and designed to facilitate the integration of UAS into civil airspace by maintaining or improving current safety while meeting International Civil Aviation Organization (ICAO) requirements for global interoperability

## **Activity: Airborne Collision Avoidance System - X (ACAS X), M54.01-01**

Airborne Collision Avoidance System - X (ACAS X)

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## **Target: Airborne Collision Avoidance System X (ACAS-X) - Publish Technical Standard Order (TSO).**

Airborne Collision Avoidance System X (ACAS-X) - Publish Technical Standard Order (TSO).

## **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 is a vital part of the NAS and enhances air traffic operations, by reducing delays and increasing efficiency of airline operations. Enhancements to the TBFM system will directly support NextGen Portfolio concepts. TBFM Enhancement 1 (formerly Work Package 3) (G02A.01-06) will continue to provide time-based metering solutions across all phases of flight to include terminal airspace. TBFM Enhancement 1 is a follow-on phase of TBFM Work Package 2 that will implement additional NextGen concepts, such as optimized descent during time-based metering and Terminal Sequencing and Spacing (TSAS) to provide efficient sequencing and runway assignment by making the metering plan visible to the Air Traffic Control (ATC) terminal and extending time based metering to the runway. The TSAS capability will extend the aircraft's trajectory plan into the terminal airspace up to the runway to enable better predictability and accuracy for support of advanced Performance Based Navigation (PBN) procedures such as Required Navigation Performance (RNP). Also in TBFM Enhancement 1 is the expansion of the Integrated Departure/Arrival Capability (IDAC) to additional locations. IDAC streamlines and automates the monitoring and scheduling process for aircraft departures. It identifies departure demands and available slots, assigns the slots to the aircraft and de-conflict departures. This increases efficiency for departure operations. The design, development and deployment of these concepts and enhancements will occur during the 2015-2022 timeframe and support the following current NextGen Operational Improvements: Improved Management.

## **Activity: Time Based Flow Management (TBFM) Sustainment 1, G02A.01-07**

Time Based Flow Management (TBFM) Sustainment 1

### **Target: Complete Time Based Flow Management (TBFM) Sustainment 1 Rough Order of Magnitude (ROM) document.**

Complete Time Based Flow Management (TBFM) Sustainment 1 Rough Order of Magnitude (ROM) document.

### **Target: Complete Time Based Flow Management (TBFM) Sustainment 1 Shortfall Analysis Report (SAR).**

Complete Time Based Flow Management (TBFM) Sustainment 1 Shortfall Analysis Report (SAR).

## **Activity: Time Based Flow Management (TBFM) Enhancement 1, G02A.01-06**

Time Based Flow Management (TBFM) Enhancement 1

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## **Target: Time Based Flow Management (TBFM) - Complete Integrated Departure/Arrival Capability (IDAC) Installation at Denver Tower (DEN).**

Time Based Flow Management (TBFM) - Complete Integrated Departure/Arrival Capability (IDAC) Installation at Denver Tower (DEN).

## **Initiative: En Route Automation Modernization (ERAM)**

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 system operations. The ERAM Technology Refresh 2 (TR2) program is a multi-year effort addressing high priority ERAM sustainment issues. This effort is the second major ERAM tech refresh addressing key sustainment shortfalls, stemming from critical ERAM display subsystem equipment end-of-service life and technology obsolescence. In addition, TR2 will address processing capacity limitations of the backroom flight data processor. Display System (DS) equipment used to control traffic at ARTCCs must also undergo tech refresh. Backroom flight data processing capacity must be increased. Current equipment used to display air traffic to controllers is based on outdated analog technology and must be replaced with digital display equipment. The Radar (R)-Position and Data (D)-Position processor will be replaced and will also include an operating system upgrade. Related equipment upgrades such as display record/playback software/workstation and R-Position KVM switches are necessary to support the transition from analog to digital display technology.

## **Activity: En Route Automation Modernization (ERAM) Sustainment 2, G01A.01-10**

The ERAM Sustainment 3 (ES3) Program is the third major technology refreshment (AKA Tech Refresh 3) investment by 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 SE&TR or the ES2 programs. The mission-critical equipment operational for enroute air traffic management at the ARTCCs is beyond operational support life cycle or at end-of-life and must be refreshed. Much of the original ERAM system hardware and equipment has been in service since 2006-2008 and is now obsolete. The specific shortfalls addressed by this sustainment program includes both component obsolescence and failures as well as processor capacity limitations shortfalls. The targeted scope of this program includes ARTCCs Backroom, Test and Training Lab (T&T), Support side, WJHTC support maintenance/production facility and Test Labs and Academy Lab. At a high level 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 2020 1st quarter through 2026 3th quarter.

## **Target: En Route Automation Modernization (ERAM) Sustainment 2 (S2) - Complete Installation of "Full" Equipment Components at Three Key ARTCCs.**

En Route Automation Modernization (ERAM) Sustainment 2 (S2) - Complete Installation of "Full" Equipment Components at Three Key ARTCCs.

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

En Route Automation Modernization (ERAM) Sustainment 3

### **Target: En Route Automation Modernization (ERAM) Sustainment 3 (S3) - Complete directorate approval of Implementation Strategy and Planning Document (ISPD).**

En Route Automation Modernization (ERAM) Sustainment 3 (S3) - Complete directorate approval of Implementation Strategy and Planning Document (ISPD).

### **Target: En Route Automation Modernization (ERAM) Sustainment 3 (S3) - Complete handoff to Integration & Test of Systems Issue Group (SIG) 1899 in EAF200 software build to form the foundation for planned ERAM Sustainment 3 equipment deployments.**

En Route Automation Modernization (ERAM) Sustainment 3 (S3) - Complete handoff to Integration & Test of Systems Issue Group (SIG) 1899 in EAF200 software build to form the foundation for planned ERAM Sustainment 3 equipment deployments.

## **Initiative: Offshore Automation (OA)**

The OA program will replace legacy automation systems at the four offshore facilities in Anchorage Air Route Traffic Control Center (ARTCC), Honolulu Control Facility (HCF), Guam Combined Center Radar Approach Control (CERAP), and San Juan CERAP with 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.

The OA program plans to address a current sustainability concern associated with the OFDPS system being used in HCF and provide nationally supported NAS standardized platforms that will bring the four 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.

## **Activity: Offshore Automation (OA)**

Offshore Automation (OA)

### **Target: Offshore Automation - Complete initial Program Requirements Document (iPRD).**

Offshore Automation - Complete initial Program Requirements Document (iPRD).

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## **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: ADS-B NAS Wide Implementation - Baseline Services & Applications, G02S.03-01**

Automatic Dependent Surveillance-Broadcast (ADS-B) is a cornerstone technology for NextGen. It reduces delays and enhances safety by using an aircraft's broadcasted position, instead of position information from traditional radar. ADS-B is an advanced surveillance technology that provides highly accurate and more comprehensive information. Aircraft position (longitude, latitude, altitude, and time) is determined using the Global Navigation Satellite System (GNSS), and/or an internal navigational reference system, or other navigation aids. The aircraft's ADS-B equipment processes this position information, along with other flight parameters for a periodic broadcast transmission, typically once a second, to airborne and ground-based ADS-B receivers. The information is used to display aircraft position on en route and terminal automation systems.

#### **Target: Enable 3 Nautical Mile Separation (3NMS) using ADS-B within En Route Airspace for the En Route Automation Modernization (ERAM) system at an ARTCC.**

Enable 3 Nautical Mile Separation (3NMS) using ADS-B within En Route Airspace for the En Route Automation Modernization (ERAM) system at an ARTCC.

#### **Target: Achieve Airport Surface Surveillance Capability (ASSC) Initial Operating Capability (IOC) at 2 Sites.**

Achieve Airport Surface Surveillance Capability (ASSC) Initial Operating Capability (IOC) at 2 Sites.

#### **Target: Update the Surveillance and Broadcast Services System (SBSS) ground system validation functions to enable a more robust validation of ADS-B reports.**

Update the Surveillance and Broadcast Services System (SBSS) ground system validation functions to enable a more robust validation of ADS-B reports.

#### **Target: Deploy ADS-B Deviation Authorization Pre-Flight Tool (ADAPT).**

Deploy ADS-B Deviation Authorization Pre-Flight Tool (ADAPT).

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**Target: Joint Industry/FAA milestone to review the relevant information and recommend information and recommend next steps of Flight Interval Management (FIM).**

Joint Industry/FAA milestone to review the relevant information and recommend information and recommend next steps of Flight Interval Management (FIM).

**Target: Conduct Flight Interval Management (FIM) Northeast Corridor (NEC)-specific benefits study.**

Conduct Flight Interval Management (FIM) Northeast Corridor (NEC)-specific benefits study.

**Activity: Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - Gulf of Mexico Platform Sustainment, G02S.05-01**

The Gulf of Mexico (GOM) implementation of Air Traffic Control (ATC) services provides ADS-B surveillance data for aircraft operating in a large area without access to traditional radar coverage. Energy platforms in the GOM are utilized by the program to host surveillance, communications and weather facilities. These platforms have a temporary lifespan that are impacted by a number of economic and technical criteria. The shutdown of a platform requires that existing facilities be removed and replacement facilities installed on platforms that address any operational shortfall.

**Target: Install Offshore Automatic Dependent Surveillance - Broadcast (ADS-B), Remote Communication Air/Ground (RCAG) and Automated Weather Observing System (AWOS) facilities on East Cameron (EC) 321A platform.**

Install Offshore Automatic Dependent Surveillance - Broadcast (ADS-B), Remote Communication Air/Ground (RCAG) and Automated Weather Observing System (AWOS) facilities on East Cameron (EC) 321A platform.

**Activity: Advanced Surveillance Enhanced Procedural Separation (ASEPS), G02S.04-01**

The Surveillance and Broadcast Services (SBS) ASEPS program, is exploring near, mid, and long-term enhancements in surveillance to support efficiencies in oceanic Flight Information Regions (FIRs). Enhancing surveillance, when coupled with improvements in communications, can provide significant improvements to air navigation services by reducing separation minima for optimum routing. New surveillance technologies and enhanced use of existing surveillance sources present the opportunity to develop new International Civil Aviation Organization separation standards at the global level which once implemented present the potential for improving the safety and efficiency of oceanic operations in U.S. managed airspace.

**Target: Complete initial integration of Space-based ADS-B (SBA) data within En Route Automation Modernization (ERAM) Test and Training Environment**

Complete initial integration of Space-based ADS-B (SBA) data within En Route Automation Modernization (ERAM) Test and Training environment at Miami ARTCC (ZMA).

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## **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 re-competing the 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) - Complete Radar Divestiture Safety Risk Management Panels (SRMP) for the first two (2) initial sites.**

Automatic Dependent Surveillance - Broadcast (ADS-B) - Complete Radar Divestiture Safety Risk Management Panels (SRMP) for the first two (2) initial sites.

## **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), A03.05-03**

Enterprise Information Display System (E-IDS).

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## **Target: Submit Enterprise Information Display System (E-IDS) Implementation Strategy and Planning Document (ISPD) for AJM-2 approval.**

Submit Enterprise Information Display System (E-IDS) Implementation Strategy and Planning Document (ISPD) for AJM-2 approval.

## **Target: Submit Enterprise Information Display System (E-IDS) Acquisition Program Baseline (APB) Execution Plan for AJM-2 approval.**

Submit Enterprise Information Display System (E-IDS) Acquisition Program Baseline (APB) Execution Plan for AJM-2 approval.

## **Target: Complete AJM-2 pre-briefs for Enterprise Information Display System (E-IDS) Final Investment Decision (FID).**

Complete AJM-2 pre-briefs for Enterprise Information Display System (E-IDS) Final Investment Decision (FID).

## **Initiative: Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3**

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 2019 and continue through 2025.

## **Activity: Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3, S03.01-12**

Solution implementation for Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3.

## **Target: ASR-9 Sustainment 3 (S3) - Analog-to-Digital (A/D) Converter System Support Modification Release.**

ASR-9 Sustainment 3 (S3) - Analog-to-Digital (A/D) Converter System Support Modification Release.

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## **Initiative: En Route Automation Modernization (ERAM) Enhancements 2**

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 recent funding adjustments a baseline change decision (BCD) occurred in December 2018 with revised program milestones, and the program will now be completed in CY2024. A preliminary allocation of each enhancement to a specific ERAM release has been determined, however refinements are ongoing. The specific enhancements are listed below and will be deployed as a series of 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.

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

En Route Automation Modernization (ERAM) Enhancements 2.

**Target: En Route Automation Modernization (ERAM) Enhancement 2 (E2) - Deliver to Key Sites Systems Issue Group (SIG) 1814 in EAE400 software build to progress toward APB milestone of delivery of NAVCanada Automated Radar Handoff Capabilities in 2022.**

En Route Automation Modernization (ERAM) Enhancement 2 (E2) - Deliver to Key Sites Systems Issue Group (SIG) 1814 in EAE400 software build to progress toward APB milestone of delivery of NAVCanada Automated Radar Handoff Capabilities in 2022.

## **Initiative: Standard Terminal Automation Replacement System (STARS) Sustainment 2**

Standard Terminal Automation Replacement System (STARS) Sustainment 2

### **Activity: Standard Terminal Automation Replacement System (STARS) Sustainment 2, A04.01-03**

Standard Terminal Automation Replacement System (STARS) Sustainment 2

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**Target: Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - Software Build S6.R10 delivered.**

Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - Software Build S6.R10 delivered.

**Target: Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - X3000/DRD Replacement Engineering Change Proposal (ECP).**

Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - X3000/DRD Replacement Engineering Change Proposal (ECP).

**Target: Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - Digital Video Engineering Change Proposal (ECP).**

Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - Digital Video Engineering Change Proposal (ECP).

**Target: Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - Remote Towers: Last (5th) Site Initial Operating Capability (IOC).**

Terminal Automation Modernization and Replacement (TAMR) Standard Terminal Automation Replacement System (STARS) Sustainment 2 (S2) - Remote Towers: Last (5th) Site Initial Operating Capability (IOC).

## **Initiative: Space Data Integrator (SDI)**

The FAA will be deploying an interim operational capability, known as the Minimal Viable Product (MVP) as an operational evaluation under Commercial Space Integration Into The NAS - Space Data Integrator (SDI) program, M55.01-02. The MVP will leverage the existing PoC to validate and refine requirements, while allowing Joint Space Operations Group (JSPOG) to use and act on the data. The SDI program will provide initial capabilities that will receive and distribute launch and reentry data and make it available for NAS automation consumption to allow for improved situational awareness and improved airspace management decision making.

### **Activity: Space Data Integrator (SDI), M55.01-02**

Space Data Integrator

**Target: Deploy Space Data Integrator Phase 1 Build 1 to the Joint Space Operations Group (JSpOG).**

Deploy Space Data Integrator Phase 1 Build 1 (Minimum Viable Product (MVP)) to the Joint Space Operations Group (JSpOG).

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## **Initiative: Mode Select (Mode S) Sustainment 3**

Mode Select (Mode S) system is a cooperative (secondary) surveillance radar system that provides aircraft target data to automation and display systems for air traffic controllers in En Route and Terminal airspace. The Mode S system has exceeded its 20 year life cycle and is experiencing decreased operational availability and performance deterioration as a result of decreased availability of replacement parts due to obsolescence. The Mode S sustainment will replace the existing Mode S equipment, excluding the antenna, with a COTS based system. The new system will be the Mode S Beacon Replacement System (MSBRS).

### **Activity: Mode Select (Mode S) Sustainment 3, S03.01-13**

Solution Implementation of the Mode S Beacon Replacement System (MSBRS)

#### **Target: Mode Select (Mode S) Sustainment 3 - Mode S Beacon Replacement System - Systems Requirements Review (SRR).**

Mode Select (Mode S) Sustainment 3 - Mode S Beacon Replacement System - Systems Requirements Review (SRR).

#### **Target: Mode S Beacon Replacement System (MSBRS) Phase 1A - Complete Preliminary Design Review (PDR).**

Mode S Beacon Replacement System (MSBRS) Phase 1A - Complete Preliminary Design Review (PDR).

## **Initiative: Terminal Second Level Engineering (TSLE)**

Terminal Second Level Engineering

### **Activity: Terminal Second Level Engineering (TSLE)**

Terminal Second Level Engineering

#### **Target: Replace the BlueRidge Virtual Private Network (VPN) and replace it with a Secure-Operational Support Environment (OSE) /firewall solution at all FAA Operational Support Facilities (OSF) and Department of Defense (DoD) sites.**

Replace the BlueRidge Virtual Private Network (VPN) and replace it with a Secure-Operational Support Environment (OSE) /firewall solution at all FAA Operational Support Facilities (OSF) and Department of Defense (DoD) sites.

#### **Target: National deployment of System Support Modification (SSM) SSM-STARS-299.**

National deployment of System Support Modification (SSM) SSM-STARS-299.

#### **Target: National deployment of System Support Modification (SSM) SSM-STARS-302.**

National deployment of System Support Modification (SSM) SSM-STARS-302.

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**Target: Complete of Operational Test & Evaluation (OT&E) Run for Record of S6.00R9.**

Complete of Operational Test & Evaluation (OT&E) Run for Record of S6.00R9.

**Target: National deployment of Standard Terminal Automation Replacement System (STARS) Archive 122019.**

National deployment of Standard Terminal Automation Replacement System (STARS) Archive 122019.

**Target: Start the effort to combine En Route and Oceanic Second Level Engineering (SLE) Operational Support Environment (AJM-25 OSE) and Terminal Second Level Engineering (TSLE) OSE (AJM 24 OSE) into the Secure-OSE environment (Combined AJM24/25 OSE).**

Start the effort to combine En Route and Oceanic Second Level Engineering (SLE) Operational Support Environment (AJM-25 OSE) and Terminal Second Level Engineering (TSLE) OSE (AJM 24 OSE) into the Secure-OSE environment (Combined AJM24/25 OSE).

**Initiative: En Route and Oceanic Second Level Engineering Support**

En Route and Oceanic Second Level Engineering Support

**Activity: En Route and Oceanic Second Level Engineering Support**

En Route and Oceanic Second Level Engineering Support

**Target: Flight Data Processing System (FDPS) - Tech Refresh all HP Z600 processors to Dell 3430 processors and upgrade the Red Hat operating system to version 7.6.**

Flight Data Processing System (FDPS) - Tech Refresh all HP Z600 processors to Dell 3430 processors and upgrade the Red Hat operating system to version 7.6.

**Target: Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) - Deliver software update for the Common Terminal Digitizer (CTD) in support of upgrade of terminal radar to asterix data.**

Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) - Deliver software update for the Common Terminal Digitizer (CTD) in support of upgrade of terminal radar to asterix data.

**Target: Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) - Deliver the Aruba Router Firewall (RFW) in support of Plan of Action and Milestones (POAM) remediation.**

Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) - Deliver the Aruba Router Firewall (RFW) in support of Plan of Action and Milestones (POAM) remediation.

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**Target: Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) - Tech Refresh all HP Z600 processors to Dell 3430 processors and upgrade the Red Hat operating system to version 7.6.**

Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) - Tech Refresh all HP Z600 processors to Dell 3430 processors and upgrade the Red Hat operating system to version 7.6.

**Target: Submit National System Support Modification (SSM) to Replace all En Route Information Display System (ERIDS) NetApp Disk Arrays and software update for all ARTCCs and WJHTC Labs.**

Submit National System Support Modification (SSM) to Replace all En Route Information Display System (ERIDS) NetApp Disk Arrays and software update for all ARTCCs and WJHTC Labs.

## **Initiative: AJR-X Operational Readiness**

Establishes procedures, requirements, and responsibilities regarding Operational Contingency Plans within the NAS to ensure safe and efficient use of available airspace, equipment, tools, technology, and workforce resources during significant events. Responsible for defining & designing, deploying, and sustaining all Operational Contingency Plans for air traffic control facilities throughout the United States. Manages and maintains contingency program policies, standards, strategies, plans, health assessments, and training. Works with all stakeholders (internal and external to Government) to ensure that contingency requirements (current and future) are aligned nationally and internationally to ensure effective contingency measures are in place during significant events.

### **Activity: NAS Enterprise Service Thread**

Serve as a focal point for the initiation of a comprehensive review of NAS capabilities at facilities and how they relate to the respective Operational Contingency Plan(s) (OCPs). Identify any existing potential risks or gaps that could prevent the use of existing OCPs and document the gaps between the existing NAS system(s) and the existing OCP. Provide recommendations to improve the NAS systems, document the service benefits, and potential risks.

**Target: Gap analysis of contingency capabilities of NAS enterprise systems**

Pilot one Draft Operational Contingency Plan for a NAS enterprise system.

### **Activity: Operational Contingency Evaluation & Exercise Procedure**

Serve as the ATO primary office conducting contingency plan evaluations and exercise procedures to ensure plan viability, familiarity, and document any gaps that may exist within the Operational Contingency Plan (OCP).

**Target: Operational Contingency Evaluation & Exercise Procedure (OCEEP) Exercise Manual:**

Develop an OCEEP Exercise Manual that includes guidelines, metrics, tools and templates for air traffic facility implementation.

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## **Target: Operational Contingency Plan (OCP) Exercises**

Conduct 10 Contingency Exercises to ensure Operational Contingency Plan familiarity and document gaps.

## **Activity: Tool Replacement and Contingency Plan Alternatives**

Serve as the focal point for the Operational Contingency Plan tool replacement and alternatives analysis for advanced technologies. Focus on advocating for improvements in existing equipment and looking for opportunities to improve contingency through NAS Modernization.

## **Target: Operational Contingency Plan (OCP) Tool Replacement**

Secure funding (AID) for acquisition support for the development of an OCP database to replace the Automated Contingency Tool (ACT2).

## **Activity: Improve ATO Operational Contingency Plans and response to significant events**

Complete annual Operational Contingency Plan (OCP) rebuilds, reviews, reports and training per the established OCP waterfall.

## **Target: 1900.47F Policy Change Guide**

The 1900.47F policy revisions to be documented and made available to all FAA facility Air Traffic Managers for awareness and application via a policy change guide document.

## **Target: Existing NAS Needs**

Develop and maintain database prototype on existing NAS needs assessment requests within the Corporate Work Plan (CWP) for contingency related needs.

## **Target: Operational Contingency Plan (OCP) Rebuilds**

Conduct Operational Contingency Plan (OCP) Rebuilds and submit final draft OCP revisions for facility negotiation at 10 sites.

## **Target: Operational Contingency Plan (OCP) Reviews**

Complete Operational Contingency Plan (OCP) Reviews and Reports for 50 sites.

## **Target: International Operational Contingency Plan (OCP) Letter of Agreement (LOA)**

Complete final template for International Contingency Letters of Agreement to be established between Federal Aviation Administration (FAA) and Foreign Air Navigation Service Providers (ANSP's).

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## **Initiative: Joint Air Traffic Operations Command (JATOC)**

Improve coordination of information through the Joint Air Traffic Operations Command (JATOC) created at the Air Traffic Control Command Center (ATCSCC). Streamline the ATO's collection, processing and dissemination of information that is critical to effective response, and recovery from, incidents in the NAS. Reduce the flow of incomplete, untimely, and redundant incident information to the ATO Offices Group and senior FAA management during NAS incidents. Enhance and streamline the communication of timely and accurate operational information to the ATO Officers Group, senior FAA management, and other appropriate stakeholders in order to support effective decision-making in response to NAS incidents. Enhance the ATO's interaction with external stakeholders during NAS incidents.

### **Activity: JATOC Coordination**

JATOC creates a single stream of operational reporting of events and air traffic incidents in the NAS to ATO leadership via information sharing.

#### **Target: JATOC Standard Operating Procedures (SOP's)**

Publish JATOC SOP.

#### **Target: JATOC Training**

Deliver training to all ATO Watch Officer (AWO) staff and other operational personnel to create system awareness on various automation platforms that enable research of Air Traffic Management response data.

#### **Target: JATOC Conduct Improvement Exercises**

Conduct regular exercises to improve incident operations action and communications.

#### **Target: JATOC - Publish a Training Order**

Publish a comprehensive JATOC Training Order.

### **Activity: Global Collaborative Decision Making**

Provide leadership to the Global Collaborative Decision Making process. Supports a customer-focused, safe, efficient, and affordable air transportation system that is environmentally responsible. Supports global understanding and acceptance of the FAA mission, operations, and Air Traffic Organization modernization efforts. Promotes 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. Oversees the Collaborative Decision Making program made up 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.

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## **Target: Promote and Expand Global CDM**

Participate in Global Collaborative Decision Making (CDM) and International Air Traffic Flow Management (ATFM) through discussion forums and exchange programs with other Air Navigation Service Providers (ANSPs), to include EuroControl, NATS/UK, SENEAM and NAVCanada, while promoting acceptance of U.S. ATFM technology, procedures and processes. Promote international efforts such as Civil Air Navigation Services Organization (CANSO) and International Civil Aviation Organization (ICAO) involvement.

## **Target: Flight Data Exchange Assessments:**

Support the development of flight data exchange agreements between the FAA and other Air Navigation Service Providers (ANSP) through bilateral meetings as requested.

## **Target: Caribbean CDM**

Serve as NAS Operations focal point for Caribbean initiatives to include Central and South American Regions.

## **Target: Global PERTI**

Support a global PERTI advanced operational plan through education and collaboration with neighboring Air Navigation Service Providers (ANSP's).

## **Activity: Provide Leadership to Collaborative Decision Making**

Ensure airport and airspace capacity are more efficient, predictable, cost-effective, environmentally sound, and matched to customer needs by providing leadership to Collaborative Decision Making (CDM) processes. Develop tools, guidance and procedures that match system capacity, efficiency and predictability to user demands while improving safety, accessibility while increasing the capacity of the nation's aviation system.

## **Target: Provide ATFM Operational Expertise**

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 CDM Steering Group (CSG) process. Conduct collaborative Decision Making (CDM) sub-team meetings to ensure projects provide efficient and cost-effective improvements to the NAS.

## **Target: CDM General Session**

Conduct annual Collaborative Decision Making (CDM) General Session to ensure CDM guidance and procedures are aligned with agency goals and customer needs in an annual report structure with key deliverables.

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## **Activity: Facility Automation and Infrastructure Support**

Review and evaluate facility automation and infrastructure support operations to improve the NAS and Air Traffic Control System Command Center (ATCSCC) facility performance.

### **Target: ATCSCC Infrastructure**

Oversee and integrate facility infrastructure improvements.

## **Initiative: Visual NavAids - RVR**

The Runway Visual Range (RVR) system provides pilots and air traffic controllers with a measurement of the visibility at key points along a runway. That data is used to decide whether it is safe to take off or land during limited visibility conditions.

### **Activity: Visual NavAids - RVR**

There are 289 RVR systems in the NAS. The new-generation RVR and PC-based RVR are safer than the older systems because the equipment is mounted on frangible, low-impact-resistant structures that break away if hit by aircraft during take off or landing. Replacement decisions are prioritized based on the level of 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. Relationship to Measure: Older RVR systems are maintenance intensive, resulting in excessive downtime. This negatively affects airport capacity and reduces adjusted operational availability. The replacement or upgraded equipment requires less maintenance and repair time, which reduces system downtime, and supports the performance measure to maintain operational availability of the NAS.

### **Target: Install Runway Visual Range (RVR) systems.**

Complete installation of Runway Visual Range systems at fifteen (15) locations.

### **Target: Procure Runway Visual Range Systems.**

Procure forty-two (42) auxiliary equipment components for Runway Visual Range (RVR) Systems.

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## **Initiative: Visual NavAids - Sustain, Replace, Relocate**

This program renovates or replaces 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). This program also supports Instrument Landing Systems (ILS) sustain and replace efforts at non-Core Airports where primary precision approach capability outages are most likely. ILS components include electronic devices (i.e., localizers, glide slopes, and distance measuring equipment, etc.). ILS's (Mark 1F) removed from Core Airports are reinstalled at lower activity airports to replace existing Mark 1D and Mark 1E ILS. This program also supports various other efforts that are related to the replacement of navigation equipment, such as: replace guide wires that support a light station, replace cable between light stations, replace aluminum light towers, replace DME antenna pedestal, convert antenna arrays, re-cable localizer antenna, equipment relocate, replace glideslope wooden tower, replace localizer antenna platform, repair pier with navigation equipment, undertake new technology initiatives, and provide engineering and technical services support. Service life extension for some ALSF-2 (CAT II/III systems) is accomplished by replacing the constant current regulators, installing an improved monitoring system and replacing electrical cables at some locations. This program supports product improvements, modifications, and technological upgrades to visual lighting system components. Ongoing efforts include: \* Improve approach lighting system semi-flush fixtures. \* Replace existing MALSR green threshold and white steady burning lights with LED lights. Relationship to Me

### **Activity: NavAids Sustain, Replace, Relocate (NSRR)**

This program renovates or replaces 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: Procure ALSF-2 RLMS kits**

Procure ten (10) ALSF-2 Replacement Lamp Monitoring System (RLMS) kits.

#### **Target: Install Replacement Lamp Monitoring Systems (RLMS).**

Install five (5) Replacement Lamp Monitoring Systems (RLMS).

#### **Target: Complete Lead-in Lights (LDIN) Replacement Project.**

Complete two (2) Lead-in Lights (LDIN) Replacement Projects.

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## **Initiative: Visual NavAids - Replace VASI with PAPI**

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: Procure and Replace Precision Approach Path Indicator (PAPI) Systems.**

Replacing VASI with PAPI improves 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. When these older VASI systems fail, air traffic controllers cannot use certain procedures such as Land and Hold Short to increase airport capacity and prevent aircraft delays.

#### **Target: Procure Precision Approach Path Indicator (PAPI) Systems.**

Procure ten (10) Precision Approach Path Indicators (PAPI) systems.

#### **Target: Replace Precision Approach Path Indicator (PAPI) Systems**

Replace ten (10) Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicators (PAPI) systems.

## **Initiative: Ground Based NavAids - ILS**

The ILS program buys and installs partial and full Category I, II, and III instrument landing systems and associated precision approach equipment at qualified airports. The ILS improve both system safety and capacity at equipped runways by providing precision approach capability in the U.S. and worldwide for aircraft landing in adverse weather conditions. Relationship to Measure: Maintain contract vehicle to procure ILS systems to replace obsolete ones.

### **Activity: Complete Instrument Landing Systems (ILS) projects.**

The ILS improve both system safety and capacity at equipped runways by providing precision approach capability in the U.S. and worldwide for aircraft landing in adverse weather conditions. Relationship to Measure: Maintain contract vehicle to procure ILS systems to replace obsolete ones.

#### **Target: Complete Instrument Landing System (ILS) replacement projects.**

Complete two (2) Instrument Landing Systems (ILS) replacement projects.

#### **Target: Complete Approach Lighting System with Sequenced Flashers (ALSF-2) project.**

Complete one (1) Approach Lighting System with Sequenced Flashers (ALSF-2) Establishment Project.

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## **Initiative: Ground Based NavAids - Distance Measuring Equipment (DME)**

The DME program supports the FAA goal by contributing to airport capacity. Each year the program needs to procure a significant number of DME systems to replace obsolete ones and to support the CAST recommendation. This system can also be used to increase RNP procedure utilization.

### **Activity: Sustain Distance Measuring Equipment (DME) Systems.**

Procure and Install Sustain Distance Measuring Equipment (DME) Systems.

#### **Target: Sustain Distance Measuring Equipment (DME)**

Complete installation of eleven (11) DME establish/sustain projects.

#### **Target: Procure Distance Measuring Equipment (DME) Systems**

Procure fifteen (15) DME systems.

## **Initiative: Ground Based NavAids - VORTAC**

This program relocates VOR and VORTAC facilities and/or improves the VOR operational performance. 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 - VORTAC**

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. As the FAA transitions gradually to performance based navigation (PBN), a VOR Minimum Operational Network (MON) will be retained to serve as a backup to satellite navigation and define VOR routes and procedures for legacy users. The VORs that are in the MON as well as the VORTACs must remain in service and may be relocated, technologically refreshed, or replaced. Currently 100 percent of the VORTAC systems are over 30 years old and beyond their service life.

#### **Target: Initiate Very High Frequency Omni-directional Range/TACAN (VORTAC) project**

Initiate one (1) dopplerization project for one (1) Very High Frequency Omni-Directional range (VOR) facility.

#### **Target: Complete Very High Frequency Omni-directional Range/TACAN (VORTAC) project**

Complete one (1) dopplerization project for a VHF Omni-Directional Range (VOR) facility.

## **Initiative: FTI Sustainment**

FTI Sustainment

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## **Activity: FTI Sustainment**

FTI Sustainment

### **Target: Enterprise Solutions & Engineering - FTI Sustainment**

Capacity Upgrades: Complete Implementation of the ZNY metro ring.

### **Target: Enterprise Solutions & Engineering - FTI Sustainment**

Security: Complete HSV Testing of ASR1002 Routers

### **Target: Enterprise Solutions & Engineering - FTI Sustainment**

Security: Complete Implementation of F5 Viprions (Traffic Directors) at two of the NESG locations.

## **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 2**

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: Terminal Voice Switch - Sustainment 2**

Complete proof of concept for Small Tower Voice Switch (STVS) Nodal Switch prototype in preparation for Non-Recurring Engineering (NRE).

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## **Initiative: Traffic Flow Management (TFMS) Sustainment 3**

The TFMS Sustainment 3 program will modernize the remaining TFMS legacy front-end applications and will increase integration and interoperability by establishing a robust, commercially available, and standards-compliant system. These upgrades will improve TFMS reliability, dependability, and availability while removing the current need for workarounds that increase software complexity, require specialized adaptors, and include internal high-maintenance interfaces.

The program will also deliver a replace-in-kind technology refresh of the hardware providing the central data processing capability for the TFMS. It will replace the hardware of the TFMS Processing Center and the TFM application National Traffic Management Log, which are located at the William J. Hughes Technical Center, the TFMS Disaster Recovery Center, and the TFMS prime contractor site.

### **Activity: Traffic Flow Management (TFMS) Sustainment 3, A05.01-15**

The TFMS Sustainment 3 Investment Analysis Readiness Decision is planned for FY 2020 Q3.

#### **Target: Submit Traffic Flow Management (TFMS) Sustainment 3 (S3) Shortfall Analysis Report (SAR) memorandum for approval.**

Submit Traffic Flow Management (TFMS) Sustainment 3 (S3) Shortfall Analysis Report (SAR) memorandum for approval.

#### **Target: Operational Information System Pilot**

As part of a pilot for a new way of developing software, the FAA will develop and test the "minimum viable product" for the Operational Information System, an element of TFMS that disseminates delay information to NAS users.

## **Initiative: Air Traffic Control Beacon Interrogator (ATCBI)**

Solution implementation for Air Traffic Control Beacon Interrogator (ATCBI)

### **Activity: Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Sustainment, S02.03-03**

The Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Sustainment program will replace and upgrade obsolete ATCBI-6 original equipment manufacturer peculiar components and Commercial Off-The-Shelf hardware and software to ensure the continued reliable and cost-effective operation of the radar system through its designated life cycle. The ATCBI-6 provides air traffic controllers with a more selective interrogation capability not available in the older systems that significantly improves the accuracy of aircraft position and altitude data provided to ATC automation systems. In addition, the ATCBI-6 in conjunction with a co-located primary Long Range Radar provides back-up Combined Control Facility surveillance service to numerous TRACON facilities in the event terminal radar services are lost. The ATCBI-6 Sustainment program will ensure that all operational and support ATCBI-6 systems continue to meet all performance and availability requirements. It will identify and address any potential requirements to maintain system sustainability, operational availability and reduce life-cycle cost until divested, consolidated or replaced with a new system.

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## **Target: Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Sustainment - Submit initial Shortfall Analysis input for the Terminal & En Route Surveillance Portfolio Shortfall Analysis Report (SAR).**

Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Sustainment - Submit initial Shortfall Analysis input for the Terminal & En Route Surveillance Portfolio Shortfall Analysis Report (SAR).

## **Activity: Air Traffic Control Beacon Interrogator Model 5 (ATCBI-5), S02.03-04**

The Air Traffic Control Beacon Interrogator Model 5 (ATCBI-5) Sustainment program will replace and upgrade obsolete ATCBI-5 original equipment manufacturer peculiar components and Commercial Off-The-Shelf hardware and software to ensure the continued reliable and cost-effective operation of the radar system through its designated life cycle. The ATCBI-5 provides aircraft target data to automation and display systems for air traffic control in Terminal and En Route airspace. The ATCBI-5 was deployed in the NAS beginning in 1973 and is currently over 40 years old with 54 operational systems remaining. An operational availability report performed in October 2017 determined ATCBI-5 system's performance does not meet the Agency's requirements for a system of Safety-Critical NAS Services. The ATCBI-5 Sustainment program will ensure that all operational and support ATCBI-5 systems continue to meet all performance and availability requirements. It will identify and address any potential requirements to maintain system sustainability, operational availability and reduce life-cycle cost until divested, consolidated or replaced with a new system.

## **Target: Air Traffic Control Beacon Interrogator Model 5 (ATCBI-5) Sustainment - Submit initial Shortfall Analysis input for the Terminal & En Route Surveillance Portfolio Shortfall Analysis Report (SAR).**

Air Traffic Control Beacon Interrogator Model 5 (ATCBI-5) Sustainment - Submit initial Shortfall Analysis input for the Terminal & En Route Surveillance Portfolio Shortfall Analysis Report (SAR).

## **Initiative: Airport Surveillance Radar Model 8 (ASR-8) Sustainment 1**

The Airport Surveillance Radar Model 8 (ASR-8) system includes 38 operational sites, 4 support sites, 4 DoD-Owned/FAA-Maintained sites, and 8 DoD sites. There are 26 Beacon-Only Sites (BOS) sites that utilize the ASR-8 antenna drive system to support the National Airspace System (NAS) Air Route Traffic Control Centers (ARTCC). The ASR-8 provides surveillance coverage of airspace up to 24000 feet above ground level within a sixty nautical mile radius of low to medium activity airports.

The ASR-8 conveys primary surveillance data and either Mode Select (MODE-S) or Air Traffic Control Beacon Interrogator - Model 5 (ATCBI-5) secondary surveillance data to the terminal air traffic control (ATC) automation systems and Surveillance and Broadcast Services (SBS). The ASR-8/MODE-S/ATCBI-5 data feeds Terminal Air Traffic Control (ATC) automation systems. The Common Terminal Digitizer (CTD) program replaces analog equipment to meet the digital format required by the Standard Terminal Automation Replacement System (STARS).

## **Activity: Airport Surveillance Radar Model 8 (ASR-8) Sustainment 1, S03.05-03**

Solution implementation for ASR-8 Sustainment 1

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**Target: Airport Surveillance Radar Model 8 (ASR-8) Sustainment 1 - Submit initial Shortfall Analysis input for the Terminal & En Route Surveillance Portfolio Shortfall Analysis Report (SAR).**

Airport Surveillance Radar Model 8 (ASR-8) Sustainment 1 - Submit initial Shortfall Analysis input for the Terminal & En Route Surveillance Portfolio Shortfall Analysis Report (SAR).

## **Initiative: Slot Administration**

In the context of airport coordination, a slot is an authorization to either take-off or land at a particular airport on a particular day during a specified time period. This authorization is for a planned aircraft operation and is distinct from air traffic control clearance or similar authorizations. Slots, or limits on the planned aircraft operations, are a tool used in the United States and around the world to manage air traffic at extremely busy airports, and to prevent repeated delays that result from too many flights trying to take off or land at the same time.

### **Activity: Slot Allocation, Analysis and Support**

The SLOT Administration program will provide contract support to the extent ordered by the FAA, in support of the maintenance of agency records consistent with the FAA's authority in 49 U.S.C. § 40103(b). Will provide for analyses of air traffic demands, access, volumes, monitoring of operations at high density airports and other Federal Aviation Administration (FAA) controlled airports/airspace to ascertain compliance or non-compliance with authorized operations records.

### **Target: Newark Schedule Submission Introduction**

Introduce "reference IDs" at Newark (EWR) associated with the number of operations within each half-hour by arrival or departure as alternative means of exchanging schedule information for Level 2 runway review.

### **Target: New York Area Slot Orders**

Extend existing New York Area Slot Orders to March 2021. Finalize draft Notice for publication with 30-day comment period. Coordinate with internal and external partners to move towards new rules going into effect after the expiration of the New York Area Slot Orders extension.

## **Initiative: System Product and Development**

The System Product and Development group is responsible for the identification, development, modification and overall management of all products/tools used by the Office of Performance Analysis and its customers. The group is the primary point of contact for the airlines, ATO lines of business and contracting companies for the purpose of developing operational decision making products for the NAS.

# FY 2020 ATO Business Plan



## **Activity: PERTI - Advanced Planning**

The advanced planning or pre-tactical planning phase mainly occurs on the day before operation with a review of next day weather and constraints. Planning begins in the morning and continues through until the 18Z TAF publication with the preliminary Plan sent to Stakeholders just after 2pm East Coast Time. During this phase, Data Mining Tools are used to provide insight into TMI strategies used under similar weather conditions and the performance outcomes that occurred during those conditions.

### **Target: PATH EnRoute**

Enhance weather-similarity forecasting to include High-Resolution Rapid Refresh (HRRR) data. Expand adaptations of weather-similarity identification to other terminal operations such as Chicago (C90), Dallas (D10), and Houston (I90). Update UI to include side-by-side comparisons of identified days.

### **Target: PATH Extended**

Continue to develop and then validate and deploy a replacement to the current PATH Extended tool, which is a historical traffic management initiative and performance outcome data mining tool used to support daily advanced planning decision making. The update will include improvements to the underlying data frameworks, the statistical analytics utilized, and to the user interface and user workflow.

### **Target: PERTI Planner**

Complete the tech transfer from MITRE to AJR-G, enhance the tool by parameterizing goals to support post event review and analysis, and provide external stakeholders with read-only access to the tool.

## **Activity: NAS Demand Prediction**

This project provides air traffic managers with reliable NAS demand predictions, so that they can create effective plans to manage volume. These predictions help traffic managers with identify high demand days at airports, TRACONs, and through ARTCCs. The predictions also are arranged to show high volume along common, seasonal flows (e.g., Snowbird Traffic).

### **Target: Snowbird Demand Prediction**

Updated Snowbird Reports will begin publishing October 2019 – one month prior to the start of Snowbird season – and finish at the end of April 2020. Following Snowbird Season, all prediction and actual data will be available for post-operations analysis.

## **Activity: Specialized Reporting Tools**

Support ATO requirements for specialized reporting tools to provide operational data and performance outcomes for specific events such as airport construction or tools that automate production of performance reports that are labor intensive.

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## **Target: Airport Construction Dashboards**

Deliver daily dashboards to FAA and non-FAA stakeholders during construction periods which are impactful to the NAS. The dashboard includes an airport's operating characteristics and performance as well as benchmarking against pre-construction modeled configurations and rates.

## **Target: Surface Surveillance Metrics Reporting**

Tracking surface time and delay was identified as a key metric by airlines and is reported with the Common Metrics application. Deliver capability that enhances existing ASPM Surface data with key event times taken from AJR-G surface surveillance data. This capability detects causal reasons for high surface times such as de-icing, crossing active runways and identifies key congested areas where delay occurs.

## **Activity: Specialized Analysis Reports**

AJR-G is required to produce responses to congressional inquiries, Reports to Congress and reports to the Department of Transportation that utilize AJR-G performance data and reporting tools.

## **Target: FAA Report to Congress**

As specified in FAA re-authorization, produce a Report to Congress on delays, cancellations and airline practice with a focus on the degree to which these delays affect smaller communities. (SEC. 413. CAUSES OF AIRLINE DELAYS OR CANCELLATIONS).

## **Initiative: System Data and Infrastructure**

The System Data and Infrastructure group is responsible for developing and maintaining the data and system infrastructure needed by the Office of Performance Analysis to perform its mission. The group will establish and procure the needed hardware and software resource that the directorate will use to build products and perform analysis. Additionally, the group is responsible for hosting and delivery the directorate's products, websites and outward facing delivery requirements.

## **Activity: PDARS Management**

PDARS provides the FAA with data and analyses on NAS operations to identify opportunities for improving NAS performance. This program tracks the daily operations of the Air Traffic Control system and its impacts. PDARS also provides data and analysis to support the decision making process for implementing new rules and procedures.

## **Target: PDARS Data and Transition**

Implement Virtual PDARS throughout the NAS to expand access to performance monitoring capabilities of PDARS and retire aging legacy hardware in accordance with security requirements.

# FY 2020 ATO Business Plan



## **Target: PDARS Utilization**

Expand usage of PDARS to contribute to NAS efficiency improvements to meet strategic on-time performance goals. Train one hundred new PDARS users throughout a range of lines-of-business and flight domains across the NAS through instructor-led classroom training, and provide web-based training to maintain user proficiency.

## **Activity: NAS Data Integration Management**

The mission of NAS Data Warehouse (NAS-DW) is to be an authoritative and consistent source of integrated FAA data for consumers of aeronautical information and Aviation System Performance Metrics (ASPM). ASPM's mission is to make integrated data and consolidated operational performance metrics / reports available throughout the agency. These systems have over 3,000 users spanning several organizations across the FAA, other government agencies, the NAS user community (e.g. airlines and airport authorities), and academia. The FAA uses these systems to efficiently streamline collection of traffic information, for archiving activities, and to provide standardized formats to a wide and diverse audience who can access, analyze, and utilize traffic information.

## **Target: Replace Legacy Flight Trajectory Processes with Base Processing using with SWIM data services**

Provide near real-time flight trajectory data using Base Processing to merge SWIM Flight Data Publication Service (FDPS), Traffic Flow Management Data, and Terminal Automation Information Service (TAIS) data for NAS-DW users replacing legacy next-day flight trajectory services. This replaces the existing legacy data services and enables near real-time metrics and analysis.

## **Target: Develop Master Flight Metrics Database**

Develop the Master Flight Metrics database that uses Base Processing near real-time flight trajectory data. The Master Flight Metrics database will include near real-time gate-to-gate metrics for analysis and reporting purposes. This will require Base Processing to integrate SWIM Surface Movement Event data for a more complete picture of surface level details at associated airports.

## **Activity: OPSNET Management**

The Air Traffic Operations Operational Network (OPSNET) system is FAA's official reporting system for air traffic operations and delays. Data is used throughout FAA and airline industry to measure NAS Performance. OPSNET data is finalized on the 15th of the following month after the report date.

## **Target: OPSNET Daily Review**

Review and reconcile delay data reported daily to the Air Traffic Operations Operational Network (OPSNET) system as required by FAA Orders JO 7210.3 & 7210.55. Forward discrepancies to the DDSO staff and monitor for compliance. Review the NAS Daily Report for completeness and accuracy. Identify data quality trends and facility reporting issues, assess the impact on reporting, and provide recommendations for improvements.

# FY 2020 ATO Business Plan



## **Activity: MITRE Tech Transfers**

MITRE has been developing a suite of technologies in support of new Traffic Flow Management plans and procedures that provides near real-time information for NAS stakeholders.

### **Target: Data Transfer to System Operations**

Continued coordination between AJR-G and MITRE throughout the year until each component is deemed ready for transfer to the AJR-G environment.

## **Activity: Development of AJR-G Strategic Data Roadmap**

Establish a working group to network, share information, and define capabilities and requirements to improve collaboration, which will reduce duplication of effort and ensure accurate and consistent results.

### **Target: Identify ATO authoritative data sources**

Identify data sources, owners, users and purposes of data, and determine what sources of data are authoritative for analysis and reporting within the ATO. Develop documentation that defines and, as appropriate, describes data sources. As appropriate, establish data user groups. Produce a report and recommendations for senior leadership.

### **Target: Develop ATO Data Strategy Roadmap**

Develop a roadmap for development of an AJR Data Strategy and a long-term plan for enhancing data collection and analytics capabilities within the AJR.

## **Initiative: System Event and Analysis**

The System Operational Analysis group is responsible for the analysis of constraints identified in the NAS and developing goals that will mitigate the impacts of these constraints on NAS performance and efficiency. The group will handle impacts that special events will have on the NAS and any special requests for metrics and analytics made by Executive Management. The group will lead all HQ projects and establish goals and targets that these projects will measure benefit to the NAS.

## **Activity: System Events and Analysis**

Provide analytical support of NAS Operations for ATO leadership, the FAA and strategic partners.

### **Target: TMI Impact/Effectiveness**

Develop automated processes to support the analysis of and routine reporting on flights affected by Traffic Management Initiatives (TMI). Process will be implemented for analysis of previous day's events and provide data elements that quantify the effects of each TMI on individual flights as well as developing overall metrics for the impact of each TMI.

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## **Target: Initial Trajectory Based Operations (iTBO) Pre-Implementation Reporting**

Develop iTBO reporting process and commence reporting at Philadelphia International Airport (PHL) and Newark Liberty International Airport (EWR). Reporting will focus on the established iTBO success criteria and support both/either recurring metrics reporting and/or a written report on pre-implementation performance at PHL and EWR.

## **Target: Standardize Analytical Procedures**

Documented processes for all routine analysis conducting within directorate for the purposes of (1) quickly bringing new analysts up to speed and (2) ensuring consistency in reporting.

## **Target: Finalize contingency reporting procedures for automation**

Implement procedures to automate current contingency reporting procedures.

## **Target: Flow Evaluation Areas (FEA) Analysis**

Provide analytical support to overhaul current FEA structures and thresholds to ensure future Airspace Flow Programs (AFPs) do not over constrain system.

## **Target: Enhanced Sector and Spacing on Final Analysis**

Standardize procedures to analyze Sector loading including productionizing the data transition from PDAR's reporting into analytical tables and measuring individual sector loads against baselines and Monitor Alert Parameter (MAP) values.

Produce a standardized procedure to report the actual spacing on final (approach) at an airport against the required minimum spacing.

## **Initiative: System Data Policy**

The Data Policy Group is primarily responsible for ensuring that all NAS data requests are processed and approved in accordance with applicable rules, regulations and laws. The Data Policy group is vital in ensuring NAS data and data protection programs are managed in a way that guarantees protection and security of FAA systems and sensitive flight data.

### **Activity: System Data Release**

Support the coordination, facilitation, and strategic planning to support development and implementation of data and information management standards, orders, and best practices that align with agency and national policies on data protection, storage, retention, and distribution. The program promotes principles of data governance, data release, data policy, cyber data security, and lifecycle data management.

### **Target: Develop Web Service**

Implement initial Limiting Aircraft Data Displayed (LADD) administration web service intake capability. Implementation includes updating Terms of Service to incorporate language from 2018 HR 302 FAA Reauthorization Bill: Section 566 and updating the Federal Register Notice. Transition web capability to FAA AIT domain hosting service.

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## **Target: Technology Transition Plan**

Transition “data.faa.gov” to the PMO. Participate in SWIM technical interchange meetings to migrate domain to new SWIM Cloud Distribution Service (SCDS) concept. Develop and execute transition plan, integrating access agreement terms of service into SCDS.

## **Target: Update of FAA Order 1200.22**

Update FAA Order 1200.22 and associated OMB Form 1200-5 to ensure completeness and accuracy of current processes in handling data requests against current agency distribution practices. Develop white paper outlining proposed updates to FAA Order 1200.22. Socialize draft order, revise draft order as appropriate, and route revised order for signature.

## **Target: Analysis of FAA Order 1375.1**

Collaborate with ADO on an update to FAA Order 1375.1 that reflects OMB guidance on data management and is in compliance with Open Government Data Act of 2019. In addition to streamlining data access per Open Government Data Act and OMB M-19-18, the Order has to fill gaps in existing FAA policies regarding use of data. Participate in technical interchange meetings with AIT to ensure completeness and accuracy of current processes in information and data management.

## **Initiative: Performance Analysis Capital Programs**

The FAA's Capital Investment Programs identify and describe the capital investments required to sustain and modernize the infrastructure, systems, services, and procedures required for the safe and efficient operations of the NAS.

### **Activity: System Capacity**

The System Capacity, Planning, and Improvements program provides data and analyses on NAS operations to FAA executives and managers to identify deficiencies and develop proposals to improve NAS performance. Work activities include serving as FAA lead for Performance Analysis work items under Memorandum of Cooperation (MOC) with the Civil Aviation Authority of Singapore (CAAS) and the Performance Analysis Review Commission (PARC) which is specified under FAA/European Commission MOC.

### **Target: International Metrics & Analysis**

Produce MOC deliverables under FAA/CAAS MOC  
Produce performance analysis reporting recommendations for Asia/Pacific region in the form of reports and ICAO working papers or joint FAA/CAAS benchmark reports.  
Produce MOC deliverables under FAA/European Commission MOC that are called for under the 2020 PARC work plan. This includes a joint report on metric shortfall analysis of CCDOM/DCOM activities such as Time Bases Flow Management (TBFM)/Arrival Management (AMAN).

# FY 2020 ATO Business Plan



## **Target: Strategic Analysis**

In collaboration with AJR-1, develop a set of standardized metrics to measure the impacts of Commercial Space Operations on NAS operations.

## **Activity: DVARS**

DVARS will serve as a replacement to PDARS utilizing a modernized platform. DVARS will provide equivalent capabilities as PDARS through integrated visualization and reporting tools that allow users to access quality NAS data and perform modeling, analysis, and trending. DVARS requirements identify opportunities for technology insertions, analytical upgrades, and migration to an enterprise architecture design that implements service oriented architecture features defined by input from the user community. DVARS will provide added benefits to the FAA that include Enterprise Information Manager (EIM) platform interoperability, FAA Cloud Service (FCS) deployment, a centralized DVARS Database, streamlined system updates, elimination of physical hardware from the architecture, the ability to expand user access, role based access control, and less overall dependency on contract support.

## **Target: DVARS Infrastructure & Processing Development**

Deliver required artifacts to move DVARS towards a Segment 2 Final Investment Decision (FID) from the Joint Resources Council (JRC).

## **Activity: OPSNET-R**

The OPSNET Replacement program will expand the collection and recording of delay capabilities to improve reporting and it will provide a system that limits manual data entry and automates compilation of operational data received from FAA automation systems. These improvements, along with increased accuracy in reporting, will enable the FAA and the aviation community to measure causes of delay by phase of flight to improve air traffic operational services and procedures. By improving definitions for measuring NAS performance in coordination with the aviation community, the definition of the reported metrics can be standardized. Having accurate, standardized metrics for reporting will enable improved benchmarking and more accurate forecasting to facilitate analysis of NAS performance.

## **Target: Investment Analysis**

Deliver artifacts to move OPSNET-R towards an Initial Investment Decision (IID) from the Joint Resources Council (JRC). This includes a side-by-side comparison of the costs associated with the three alternatives identified in our Initial Investment Readiness Decision (IARD).

## **Target: Software Solution Development**

Begin planning for the next phase of AMS work by conducting market surveys and engaging with subject matter experts to outline a basic set of requirements for prototype development

# FY 2020 ATO Business Plan



## **Initiative: NAVAIDS Monitoring Equipment (NME)**

The Nav aids Monitoring Equipment (NME) program will replace or upgrade legacy air traffic control and monitoring systems operating in the NAS. Two legacy systems are used in the NAS, ICMS and FA-30000 (Universal Interlock Controller). These systems, which are typically located in the tower and equipment room, are used by air traffic control specialists (ATCS) and airway transportation system specialists (ATSS) for controlling and monitoring a predefined set of Nav aids such as instrument landing systems (ILS), Airport Lighting Systems, runway visual range (RVR) equipment, runway end identifier lights (REIL), precision approach path indicator (PAPI) light arrays, and other Nav aids located at an airport. The program will establish a common requirements baseline and provide a streamlined software, training and logistics support across all systems to approximately 32 airports. An Investment Analysis Readiness Decision (IARD) was approved in December 2016; and an Initial Investment Decision (IID) approved on September 18, 2019. The Final Investment Decision (FID) is scheduled for Q1 of FY20.

### **Activity: NAVAIDS Monitoring Equipment (NME), M08.41-02**

NAVAIDS Monitoring Equipment (NME)

**Target: Submit Nav aids Monitoring Equipment (NME) Final Implementation Strategy & Planning Document (ISPD) and Program Requirements Document (fPRD) for approval.**

Submit Nav aids Monitoring Equipment (NME) Final Implementation Strategy & Planning Document (ISPD) and Program Requirements Document (fPRD) for approval.

## **Initiative: Common Terminal Digitizer (CTD)**

The CTD Program purpose is to procure and implement primary and secondary radar digitizers to convert ASR-8 analog radar signals to the digital data format. These systems will digitize ASR-8 surveillance systems in support of the Standard Terminal Automation Replacement System (STARS), as a part of the Terminal Automation Modernization and Replacement (TAMR) Program. A total of 34 TAMR CTDs were planned to be procured under FFP contract option, 31 CTDs for ASR-8 operational sites and 3 CTDs for support sites. An additional 12 CTDs were procured with NDP and SIM funding to address additional operational ASR-8 sites.

### **Activity: Common Terminal Digitizer (CTD)**

Common Terminal Digitizer (CTD)

**Target: Complete eleven (11) Common Terminal Digitizer (CTD) Initial Operating Capabilities (IOCs).**

Complete eleven (11) Common Terminal Digitizer (CTD) Initial Operating Capabilities (IOCs).

## **Initiative: Abacus**

Abacus

### **Activity: Abacus**

Abacus

# FY 2020 ATO Business Plan



**Target: Software development and test complete for the Abacus adaptation product (3D adaptation + adaptation inputs).**

Software development and test complete for the Abacus adaptation product (3D adaptation + adaptation inputs).

**Initiative: Northeast Corridor (NEC)**

Integrated Departure Route Program (IDRP)

**Activity: Northeast Corridor (NEC)**

Integrated Departure Route Program (IDRP)

**Target: Technical Operations Group**

Conduct Integrated Departure Route program (IDRP) prototype re-familiarization sessions.

**Target: Program Control & Integration**

Joint industry/FAA milestone to assess opportunities to expand the use of CDTI-assisted operations beyond CAVS.

**Initiative: AJV International**

Perform activities for planning work surrounding Air Navigation Service Providers; Operational Contingency Evaluation & Exercise Procedure; and Global Leadership Initiatives - Europe, Asia/Pacific, ICAO and Americas.

**Activity: Asia-Pacific**

AJV international activity for the Asia-Pacific Group.

**Target: Informal South Pacific ATS Coordinating Group (ISPACG)**

Develop strategy and objectives for ATO participation in the Informal South Pacific ATS Coordinating Group (ISPACG) meeting. Work with AJT and AJM to develop papers and positions to support the overall United States Government effort.

**Target: Regional Airspace Symposium**

Conduct a regional airspace symposium to include several Asian States with participation from IATA, ICAO, ACI.

**Target: Asia-Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) meeting**

Develop strategy and objectives for ATO participation in International Civil Aviation Organization's (ICAO) Asia-Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) meeting. Work with ATO offices to develop papers and positions to support the overall United States Government effort.

# FY 2020 ATO Business Plan



## **Activity: Global & Oceanic Initiatives**

AJV international activity for the Global & Oceanic Initiatives Group

### **Target: ATFM initiative**

As part of the global ATFM initiative, prepare a joint FAA and EUROCONTROL cooperative project to host a personnel exchange with EUROCONTROL under the existing MoC

### **Target: Oceanic Environment 2035 Concept of Operations Document**

Develop a Future of the Oceanic Environment 2035 Concept of Operations document.

### **Target: CANSO World ATM Congress**

Support ATO delegation to the CANSO World ATM Congress.

## **Activity: Europe, Africa, Middle-East**

AJV international activity for the Europe, Africa, Middle-East Group.

### **Target: CCOM/DCOM collaboration**

Transition work to deployment and execution through joint CCOM/DCOM collaboration.

### **Target: ICAO Standards**

Influence ICAO Standards through EUR/NAT, AFI and MID workgroups.

### **Target: Space-Based ADS-B**

Evaluate potential use of Space-Based ADS-B in the Oceanic environment.

## **Activity: Americas**

AJV international activity for the American Regions & ICAO Group.

### **Target: Caribbean Aviation Resilience and Recovery Group (CARRG)**

Work with AWH and ATO Offices to support the development of the Caribbean Aviation Resilience and Recovery Group (CARRG).

### **Target: North American, Central American and Caribbean (NACC) Regional Office**

Work with the ICAO North American, Central American and Caribbean (NACC) Regional Office; neighboring foreign facilities/air navigation service providers, and FAA Centers (Miami, San Juan, Houston and New York) for the development of new or modified routes, procedures, and data sharing agreements to improve operations across airspace boundaries.

### **Target: 6th Edition of GANP/ASBU**

Evaluate and adapt the 6th Edition of GANP/ASBU into workshop materials to support the NACC Region.

# FY 2020 ATO Business Plan



## Innovation

Lead in the Development and Deployment of Innovative Practices and Technologies that improve the Safety and Performance of the Nation's Aviation System.

### Development of Innovation

Encourage, coordinate, facilitate, and foster world-class research and development to enhance the safety, security, and performance of the Nation's transportation system.

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#### Initiative: Data Access and Management

Effective management of enterprise data will enable the seamless flow and access of timely, reliable, and relevant information, which supports evidence-based decision-making and innovation for the FAA workforce and aviation stakeholders.

##### Activity: Improve access to, and quality of, FAA data assets.

Formalize data stewardship and data standards within the FAA. In alignment with principles and practices outlined in OMB M-19-18 and under the guidance of the EIM Steering Committee, collaborate with data stewardship communities of practice (SCoP) and other FAA stakeholders to adopt best practices in data management and access.

##### Target: Update to FAA Order 1375.1 (AJM)

Submit from AIT for LOB and SO coordination, an update to FAA Order 1375.1 that reflects OMB guidance on data management and is in compliance with the Open Government Data Act of 2019. In addition to streamlining data access per Open Government Data Act and OMB M-19-18, the Order has to fill gaps in existing FAA policies regarding the use of data.

##### Activity: Accelerate adoption of transformational technologies to enhance innovation.

Accelerate adoption of advanced analytical methods, machine learning and artificial intelligence, to bring innovative solutions to business problems throughout the FAA.

##### Target: Revamped Portal For External Data Access (AJM)

Deploy a revamped data.faa.gov portal for external data access that spurs innovation by providing consistent API access to API enabled data sets. Prepare a plan to align existing data.faa.gov material and related initiatives, with the future vision embodied in the revamped site.

#### Initiative: Commercial Space - AJV

Examine characteristics of space vehicle operations and determine whether changes are needed to airspace.

# FY 2020 ATO Business Plan



## **Activity: Commercial Space - AJV**

Innovation Development Commercial Space: The space industry is currently researching the development of new launch vehicles that have various performance characteristics. These new launch vehicles may necessitate changes in airspace structure, operating procedures, and standards in order to integrate these operations in ways that do not cause an undue burden on other NAS users. These diverse vehicle types have different operating characteristics that will pose new challenges for the NAS. Demand forecasts project continued growth for space-based activities in the areas of commercial human spaceflight, research, testing, education, satellite deployment, remote sensing, and point-to-point transportation.

### **Target: Standard LOA Template**

Provide a standard LOA template that includes the specific requirements for space vehicle operations and ensures responsibilities are clearly defined.

### **Target: ATO NAS Impact Analysis**

In coordination with System Operations Services (AJR) and Air Traffic Services (AJT), develop policy and process for ATO NAS impact analysis of proposed commercial space launch and reentry sites (spaceports).

### **Target: Acceptable Level of Risk (ALR) concept in the Radar environment**

Provide standards and procedures support to update and develop procedures and FAA Orders to address mitigations included in the FAA's Acceptable Level of Risk (ALR) concept in the Radar environment.

### **Target: Acceptable Level of Risk (ALR) concept in the Oceanic environment**

Provide standards and procedures support to update and develop procedures and FAA Orders to address mitigations included in the FAA's Acceptable Level of Risk (ALR) concept in the Oceanic environment.

### **Target: eLMS product for Launch and Reentry**

Update and deliver eLMS product for introduction to space vehicle launch and reentry operations integration.

### **Target: ATO Roadmap for the Integration Space Operations in the NAS**

Develop initial report documenting the alignment of the ATO Roadmap with the ATO Business Plan and NAS Enterprise Architecture (EA).

### **Target: SIC Investment Analysis Readiness Decision**

Complete deliverables required for SIC Investment Analysis Readiness Decision (IARD).

## **Initiative: Airspace Authorizations**

The FAA will enable the safe integration of Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS)

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## **Activity: UAS Authorizations**

The FAA will enable the safe integration of Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS) while refining processes that allow UASs to operate

### **Target: Part 107 Authorizations**

Process 95% of manual Part 107 Airspace Authorizations within the 90-day timeline mandated by Congress.

## **Initiative: Cyber Security - Vulnerability Management Processes**

Evolve mitigation strategies to safely secure FAA infrastructure to reduce cybersecurity risks by determining the likelihood of a security breach and potential impacts to networks and systems.

### **Activity: Vulnerability Management Processes**

Protect and defend FAA information, information systems and networks to mitigate risks to the FAA mission and services.

### **Target: Vulnerability Management Processes**

Address 80% of Internet Protocol (IP) based high value risks within 30 days. Continue to provide information to the Cybersecurity Steering Committee to assure consistent risk acceptance decisions. (IWC - ATO, ANG, ASH, AVS)

## **Initiative: Unmanned Aircraft Systems (UAS)**

The Agency policies concerning UAS integration into the NAS is distinct from other Air Traffic National Service Providers in that the United States seeks full integration of UAS rather than segregation of UAS from other aircraft while still satisfying all safety concerns and maintaining NAS integrity and efficiency. The Air Traffic System Command Center is in the key position to bring its comprehensive knowledge of NAS complexity to the UAS policy implementation discussion.

### **Activity: Unmanned Aircraft Systems (UAS) Integration into the NAS**

The Agency policies concerning UAS integration into the NAS is distinct from other Air Traffic National Service Providers in that the United States seeks full integration of UAS rather than segregation of UAS from other aircraft while still satisfying all safety concerns and maintaining NAS integrity and efficiency. The Air Traffic System Command Center is in the key position to bring its comprehensive knowledge of NAS complexity to the UAS policy implementation discussion.

### **Target: Identify Traffic Management Roles**

Provide operational expertise in determining Sys Ops traffic management roles and responsibilities in supporting NAS operations, to include any needed capabilities.

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## **Initiative: Commercial Space**

The space industry is currently researching the development of new launch and reentry vehicles that have various performance characteristics. These new launch and reentry vehicles may necessitate changes in airspace structure, operating procedures, and standards in order to integrate these operations in ways that do not cause an undue burden on other NAS users. These diverse vehicle types have different operating characteristics that will pose new challenges for the NAS. Demand forecasts project continued growth for space-based activities in the areas of commercial human spaceflight, research, testing, education, satellite deployment, remote sensing, and point-to-point transportation.

### **Activity: Integrate New Space Entrants**

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: Space Concept of Operations (CONOPS) for Space Operator integration**

Participate in the development of an agency-level Space Concept of Operations (CONOPS) for airspace integration.

#### **Target: Collaboration with the Office of Commercial Space (AST)**

Refine the Joint Space Operations Group (JSpOG) (which consists of AJR and AST Support Specialists) Standard Operating Procedures (SOP) roles and responsibilities and brief management during regular internal FAA meetings. Provide analysis to NAS Stakeholders affected by commercial and government space activities. Collaborate with AST and AJM in the development of the Space Data Integrator (SDI). AJR contributes to the development processes and refinement of the technical requirements for this prototype. This is a long-term project that will likely run into 2020.

### **Activity: Integrate Commercial Space Transportation into the NAS**

Integrating Space Launches into National Airspace System (NAS) by using Time Based Launch/Reentry Procedures to Improve National Airspace System (NAS) efficiency.

#### **Target: Develop Time Based Launch/Reentry Procedures**

Develop Time Based Launch/Reentry Procedures to more efficiently manage air traffic affected by and in the vicinity of launch activity.

#### **Target: Develop Dynamic Launch/Reentry Windows**

Develop Dynamic Launch/Reentry Windows, based on launch/reentry operator triggers, to gain additional efficiency and supported by Time Based Launch/Reentry Procedures.

#### **Target: Time Based Launch Procedures Briefing Video**

Complete and distribute the Time Based Launch Procedures (TBLP) briefing video for Air Traffic Controllers and dispatchers

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## **Target: New York ARTCC Brief**

Brief the New York Air Route Traffic Control Center (ARTCC).

## **Target: FCA Rerouting Training**

Start to train New York Air Traffic Controllers on the Flow Controlled Area (FCA) rerouting.

## **Target: TBLP Preliminary Metrics**

Develop preliminary metrics to demonstrate effectiveness of Time Based Launch Procedures (TBLP).

## **Target: Dynamic Launch Windows Schedule**

Develop FAA briefing and coordination schedule for Dynamic Launch Windows (DLW).

## **Target: Dynamic Launch Windows Industry Schedule**

Develop Industry briefings and coordination schedule for Dynamic Launch Windows (DLW).

## **Activity: Space Vehicle Operations**

This activity establishes hotline communications regarding vehicle status and operational information between operators and the FAA.

### **Target: Establish Hotline Communications**

Establishes hotline communications regarding vehicle status and operational information between commercial space operators and the FAA. This activity also addresses LOAs already in place during renewal or other update methods. This activity will close when the LOA templates with hotline requirement are published via the (7400.2.)

## **Initiative: ATO Analysis of Spaceports and Space Vehicle Operations**

Develop standard methodology and automation tools to assess NAS impact of spaceport and space vehicle operations. Automate ATC processes for surveillance of space vehicle operations.

### **Activity: Develop Automated Capability to Assess Impact of Spaceport and Space Vehicle Operations on NAS Users and Resources**

This activity develops a methodology and proof-of-concept tool to assess the impact on the NAS and NAS users, such as additional mileage flown or delay time, from proposed space mission aircraft hazard areas.

### **Target: Collaborate with Industry Stakeholders**

ATCSCC Space Operations collaborates with industry partners to understand, evaluate and define the metrics of New Entrants NAS impact assessment analysis.

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## **Target: Collaborate with FAA Internal Lines of Business**

Collaborate with AST and ANG-C5 to identify and develop capabilities to automate hazard assessments of space vehicle debris using a hazard analysis tool.

## **Initiative: Increase NAS Access by Reducing Security Impact**

Reduce the impact of security related aviation activities on the efficiency and performance of the National Airspace System (NAS) through planning and mitigation.

### **Activity: Development of and Support for Operational ATM Security Procedures**

Support ATM security operations such as National Hurricane Operations Plan (NHOP), Open Skies Treaty Flights, Global Positioning System/Identification, Friend or Foe/Electronic Attack (GPS/IFF/EA) testing, Special Interest Flights (SIF), diplomatic flights, call signs, and other domestic and foreign aircraft overflight security requirements through the development of and support for operational ATM security procedures in FAA directives, non-regulatory guidance publications, and Standard Operating Procedures (SOPs).

#### **Target: ATM Security Procedures**

Assess Operational Air Traffic Management (ATM) security procedures in FAA and non-FAA directives and publications for accuracy and effectiveness; Coordinate or initiate changes as needed.

### **Activity: Support Interagency Operational ATM Security Policy, Planning and Coordination**

Support interagency operational Air Traffic Management (ATM) security planning, policy, and coordination for Open Skies Treaty flights, Global Positioning System/Identification, Friend or Foe/Electronic Attack (GPS/IFF/EA) testing, Special Interest Flights (SIF), diplomatic flights, call signs, and other domestic and foreign aircraft overflight security requirements.

#### **Target: Treaty and National Security Policy Support**

Serve as FAA point of contact for operational policy, planning, procedures and coordination for Open Skies Treaty flights in the United States. Participate in and serve as FAA point of contact for other treaty and national security policy support ad hoc meetings and working groups.

#### **Target: Coordinate GPS/IFF Test within ATO**

Coordinate all GPS/IFF requests within ATO in accordance with timelines identified in 7610.4.

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## **Target: Formal Agreements with Other Agencies**

Support ATM security operations by developing, reviewing and/or revising Memorandums of Agreement (MOAs), Memorandums of Understanding (MOUs), Letter of Agreement (LOAs), and Joint Concept of Operations (J-CONOPS). Participate in internal and interagency meetings to facilitate coordination of formal agreements with other agencies.

## **Target: Interagency Support**

Serve as the FAA point of contact for interfacing with interagency partners concerning support of policy, plans and procedure development for national security, aviation security, intelligence and law enforcement mission sets. Coordinate interagency policy for aircraft entering, exiting, and operating within US territorial airspace. Conduct or participate in interagency working groups and meetings regarding operational ATM security plans and procedures.

## **Activity: Support for FAA Programs Affecting Operational ATM Security**

Support operational ATM security aspects of FAA Call Sign policy and processing. Support operational ATM security aspects of classified and sensitive unclassified operations in the NAS by developing and coordinating requirements for the protection of the sensitive flight data (SFD) associated with such flights; maintain and update the filter files and process used to execute the protection of SFD. Provide administrative support for operational ATM security-related software, databases and web sites.

## **Target: Domestic Aircraft Identification Security Program**

Serve as the FAA point of contact for developing and implementing call sign security procedures for Department of Defense (DoD) and Federal, State and Local (FSL) government and law enforcement aircraft; aircraft using three letter International Civil Aviation Organization (ICAO) company designators; and aircraft operating with foreign registration numbers in the National Airspace System. Serve as interface with the ICAO for Government ICAO three letter designators and telephonies.

## **Target: Management of Sensitive Flight Data (SFD) Protection Program**

Serve as the FAA point of contact for developing and implementing policy and procedures for the protection of FAA collected or generated flight data associated with sensitive flights, which are the classified and sensitive unclassified operations conducted in the NAS for the purposes of national defense, homeland security, intelligence and law enforcement. Coordinate with NAS program offices to implement AJR-2 Sensitive Flight Data (SFD) filtering files and process. Work to incorporate the SFD protection requirements in the appropriate FAA baseline documents, to possibly include the NAS Requirements Document (NAS-RD), the Acquisition Management System (AMS) process, and the Joint Resources Council (JRC) baseline checklist.

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## **Target: Web Site and Database Management Support**

[PRN site, SIF database, support for SOSC, special call sign list for special operations]  
Create and maintain and/or access and analyze data in security-related enterprise databases, filter files, and aeronautical charts used by or available in Automated Airspace Detection System (AADS), the Sensitive Flight Data (SFD) identification process, Traffic Flow Management System (TFMS), Aeronautical Data Exchange (ADX), Jeppesen FliteStar, online flight trackers, SkyWatch, NextGen, and other data systems required by AJR-2 for security assistance and support.

## **Target: Controlled Unclassified Information (CUI) Implementation Support**

Serve as the FAA operational ATM security POC in meetings, workgroups and initiatives related to policy on the categorization and protection of Sensitive Flight Data (SFD) associated with the classified and sensitive unclassified missions conducted in the NAS for the purposes of national defense, homeland security, intelligence and law enforcement.

## **Activity: Support NextGen and Interagency ATM Security Harmonization Initiatives**

Ensure interagency operational ATM security issues and requirements are taken into consideration as the FAA develops and matures policies and strategies to move forward with NextGen and globalization of ATM.

## **Target: ADS-B Equipage and Operations Security (OPSEC) Strategy Development and Support**

Serve as the FAA operational ATM Security POC in meetings and discussions regarding NEXTGEN system flight data security and interagency OPSEC requirements and issues, particularly meetings and issues related to ADS-B/Mode S flight data security.

## **Target: Radar Strategy Development and Support**

Serve as the FAA operational ATM security POC in meetings, workgroups and initiatives related to FAA radar strategy Joint Surveillance System (JSS) strategy, and interagency radar strategy.

## **Target: Cyber Security Strategy Development and Support**

Serve as the FAA operational ATM security POC in meetings, workgroups and initiatives related to the unauthorized disclosure of Sensitive Flight Data (SFD) associated with the classified and sensitive unclassified flights in the NAS conducted for the purposes of national defense, homeland security, intelligence and law enforcement.

## **Target: NAS Data Release Strategy Development and Support**

Serve as the FAA operational ATM security POC in meetings and discussions regarding NAS data release security issues, particularly with regard to Sensitive Flight Data (SFD). Perform NAS Data Release Board (NDRB) evaluator functions. Review agency agreements, such as MOAs, IAAs, etc., pertaining to NAS data release of SFD to ensure operational ATM security requirements are met.

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## **Activity: Operational Lead for Air Traffic Organization's (ATO's) Crisis Response, Planning, and Execution**

Strengthen the ATO's response to disasters and other significant incidents through the development, exercise, and execution of plans and procedures for: the activation of the Joint Air Traffic Operations Command (JATOC) – Crisis Action Team (J-CAT), including, as needed, the use of the Air Traffic Control System Command Center (ATCSCC) Event Management Center (EMC); interaction with the three Service Center Significant Incident Response Groups (SIRGs); and cooperation with interagency partners, specifically including support to the U.S. Department of Transportation's National Response Program (NRP) and work with the Federal Emergency Management Agency (FEMA).

### **Target: ATO Significant Incident Representative**

Represent ATO in matters concerning significant incidents (e.g. weather, man-made disasters) which exceed normal operational capabilities; matters and issues concerning communicable disease, pandemic influenza, and public health risk interests and emergencies; and matters and issues concerning Man Portable Air Defense Systems (MANPADS) and the Interagency MANPADS Working Group (IMWG). Refine ATO significant incident management procedures, to include finalizing, as well as integration with the emerging JATOC concept, guidance that extends from initial alert, deactivation and after-action activities (e.g., FAA Orders, ATO Notices/regulations, and internal Standard Operating Procedures (SOPs) and checklists. Utilize real world crisis, as well as exercises to develop After Action Reports (AAR) and Corrective Action Plans (CAP) to refine procedures.

### **Target: Coordinate Emergency Staffing**

Coordinate J-CAT staffing of the ATCSCC EMC, National Response Coordination Center (NRCC) Emergency Support Function (ESF-01) aviation element, and other ATO incident management nodes (e.g., Air Access Response Cell (AARC) as required to respond to disasters and other significant incidents. Refine threat/hazard specific procedures to facilitate ATO response efforts.

### **Target: FAA Crisis Response Working Group**

Represent AJR-2 in meetings of the FAA headquarters Crisis Response Working Group (CRWG), including those convened for international threat situations and significant incidents. Provide follow-up plans regarding CRWG activities and recommendations, as well as, an annual compliance report.

### **Target: Lead Crisis Response Exercises and Interagency Contingency Planning**

Leads the ATO for all crisis response exercises and Interagency contingency planning. Develops and conducts regular ATO crisis response exercises to explore the organization's ability to effectively respond to significant incidents. Participates in FAA and Interagency National Level Exercise (NLE) planning meetings to include all phases and other exercise planning forums when required. Publishes an integrated exercise calendar.

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## **Activity: Utilize and Promote Security and Crisis Response Automation Platforms**

Strengthen the ATO's ability to protect and respond to threats in the Air Domain through utilization of security and crisis response automation platforms. Enhance these platforms, as well as develop and field new system, in order to substantially improve security capabilities to meet the changing threat environment.

### **Target: Automation Platform Training**

Equip and train AJR-2 personnel on automation platforms that enable research of Air Traffic Management (ATM) security and crisis response related data.

### **Target: Security Data Analysis**

Analyze data in security related databases available in AJR-2 automation platforms to support operational and other programmatic needs.

### **Target: Crisis Response Training**

Equip and train other ATO offices and external partners on crisis response automation platforms and their functionalities as needed to support partnership efforts.

### **Target: Automation Platform Analysis**

Analyze crisis response automation platforms to identify and address capabilities deficiencies.

## **Activity: Embedded Operational Security Representatives at Critical Interagency Facilities**

Support the coordination between the FAA and Homeland Security/Defense operations centers with embedded FAA Liaisons and Air Traffic Security Coordinators (ATSCs).

### **Target: Intercept Operations**

Conduct, at least biannually, reviews using the Department of Defense's (DOD's) intercept operations reports. Further, identify actions to be taken by FAA to further mitigate the impact of intercept operations in the National Airspace System (NAS) while still meeting national security objectives. The review will include post review actions such as meeting with Department of Defense (DOD), Department of Homeland Security (DHS), and internal FAA representatives. The result and actions taken will be briefed to appropriate FAA executives.

### **Target: Classified Operations Mitigation**

Conduct, at least biannually, reviews of actions taken by FAA to further mitigate the impact of classified operations in the NAS while still meeting national security objectives. The review will include post review actions such as meeting with DOD, DHS, and internal FAA representatives.

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## **Target: Law Enforcement Flight Activities**

Conduct, at least biannually, reviews of law enforcement flight activity reports. Identify actions to be taken by FAA to mitigate the impact of law enforcement flight activities on the NAS while still meeting national security objectives. The review will include post review actions such as meeting with DOD, DHS, and internal FAA representatives.

## **Activity: Air Domain Outreach and Education: Domestic and International**

Represent the ATO at domestic and international venues to strengthen Air Navigation Services (ANS) focused cooperation with other Federal, State, and local government authorities, as well as foreign Civil Aviation Authorities and Air Navigation Services Providers on shared national security, law enforcement, aviation security, and emergency operations related goals involving the Air Domain.

## **Target: Educational Briefings**

Conduct educational briefings and seminars to law enforcement (LE) and non-LE agencies; other first responders; domestic stakeholders; user groups and the public on aviation security operational procedures and requirements. Include in report any issues that developed and recommended actions.

## **Target: Provide Airspace Security Expertise**

Deploy qualified liaisons to selected high profile events to provide onsite airspace security expertise and monitoring capability, and to provide assistance with aviation security/safety issues as required. Include the frequency and outcome of each deployment.

## **Activity: Operationalize Air Domain Related Intelligence**

Translate, as appropriate, intelligence concerning the NAS, provided by various government agencies, into specific real time actions that ensure the safety and security of the NAS while responding to the needs of our government partners.

## **Target: Airspace Security Measures**

Plan, coordinate and monitor the execution of airspace security measures for national defense, law enforcement, and homeland security exercises and missions. Complete monthly reviews.

## **Target: Intra-Group Exercise Coordination**

AJR-25 will plan and coordinate Department of Homeland Security (DHS) and other law enforcement (local, state, federal) aviation missions and exercises in close cooperation with AJR-24. The Intra-Group coordination should take place within established time limits to ensure appropriate air traffic support. AJR-25 will meet with AJR-24 on a minimum quarterly basis and review a sampling of events coordinated for adherence to procedure and timeliness.

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## **Target: Conduct Air Traffic Security Operations**

Air Traffic Security Coordinators (ATSCs) will conduct air traffic security operations for national defense and homeland security missions; as well as leverage all intelligence provided by FAA and other channels to monitor airspace and track flights (domestic and international) in the National Airspace System (NAS). Conduct daily review of Skywatch logs and monthly review of operations for results and analysis.

## **Target: Security Information Sharing**

The System Operation Support Center (SOSC) will share pertinent aviation security information internally and externally. This security information is disseminated to the correct offices and locations to develop airspace restrictions accurately and timely. SOSC will also collaborate and coordinate special interest flight waivers and routings in accordance with established guidance. SOSC actions will be reviewed monthly to verify accuracy.

## **Initiative: Enterprise Solutions and Engineering**

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: TDM-IP Migration**

Establish program level agreements for 1 legacy TDM based NAS systems.

## **Initiative: Instrument Flight Procedures Automation (IFPA)**

The Instrument Flight Procedures Automation (IFPA) program develops instrument flight procedures that provide pilots with approach and departure paths into and out of airports that are clear of obstacles such as cell towers, buildings, and trees. The Aeronautical Information Services (AIS, AJV-5) organization within the Air Traffic Organization's (ATO) Mission Support Services (AJV), provides support services to Air Traffic Advisory, Airspace Management, Infrastructure Management, Navigation, and Separation Assurance Services to ensure standard development, evaluation, and certification of airspace systems, procedures, and equipment for customers worldwide. The IFPA program focuses on the acceptance, coordination, design, development, flight inspection, charting and publication of Instrument Flight Procedures (IFPs).

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## **Activity: IFPA Sustain 1**

The CDR demonstrates that the maturity of the APWS design is appropriate to support proceeding with full scale development, integration, and test. It is complete when the IFPA Program Office determines that action items resulting from the review are sufficiently completed.

### **Target: IFPA Sustain 1**

Complete the Aeronautical Information System (AIS) Production Workflow System (APWS) User Acceptance Testing (UAT)

### **Target: IFPA Sustain 1**

Complete the Aeronautical Information System (AIS) Production Workflow System (APWS) Operational Capability.

## **Initiative: System Operations Security**

Provide policy, planning, and management for all aspects of ATM operational security in the National Airspace System (NAS), including Presidential movement, classified programs, crisis and emergency response, Special Use Airspace, and military activities.

## **Activity: Strategic Air Traffic Management Security Activities of the NAS**

Develop and coordinate strategic air traffic management (ATM) security policy and planning. Conduct ATM security research.

### **Target: Business Planning and STIs**

Develop annual business plan and Short Term Incentives (STIs) for AJR-2 in compliance with FAA and internal guidelines.

### **Target: Business Plan Tracking and Reporting**

Complete monthly AJR-2 Business Plan update tracking and reporting in the Strategic Business Module (SBM) system. Immediately report targets identified as Yellow or Red status to execute and monitor an action plan for remedy.

### **Target: Budget and Expenditures**

Oversee and track AJR-2 budget expenditures. Ensure completion of quarterly budget management reports and contract purchase requests in correct quarter.

### **Target: Identify Office Requirements**

Track and identify AJR-2 Directorate office requirements to include: authorization/staffing status and issues; office telecommunications/automation requirements and shortfalls.

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## **Activity: Development and Execution of Airspace Restriction in Support of National Security Objectives**

Support the requests of national, state, local, and tribal agencies to develop and implement Temporary Flight Restrictions (TFR) in response to security, law enforcement, and natural disaster events.

### **Target: Protective Security Measures**

Identify and plan protective security measures (including the publication of the preliminary advisory notice) for National Special Security Events (NSSE). Normally preliminary advisory notices will be accomplished two weeks prior to the event. Conduct a quarterly review of events to ensure 90% of the notices are published at least 10 working days prior to the event.

### **Target: VIP Movements**

Develop, coordinate, and implement airspace restriction plans for Very Important Person (VIP) movements in the National Airspace System (NAS). Identify and report on all VIP movement planning efforts, to include issues identified and resolution.

### **Target: Support Center Activities Review**

Track and review System Operations Support Center (SOSC) activities on a monthly basis to ensure they are completed timely and accurately. Provide monthly report on trend analysis of statistical data and any issues, when requested to the Director of AJR-2 on a quarterly basis, no later than the last day of the month following the end of the quarter (January, April, July, October).

### **Target: VIP Movement Coordination**

Complete at least 90% of VIP movement coordination packages at least 36 hours before the movement is scheduled to occur.

### **Target: Global Event Preparation**

Develop a special event plan to address the increased traffic flows and VIP movements expected for the 2020 Summer Olympics by June 30, 2020.

## **Activity: Communications Security (COMSEC) and Information Security (INFOSEC)**

Support the requests of various government agencies to conduct classified operations within the NAS. Coordinate these requests across the ATO/Air Navigation Service Provider as needed to preserve confidentiality as a trusted agent.

### **Target: Review Classified Aviation Operations**

Plan, coordinate, execute, monitor, and review national defense and homeland security classified aviation operations through our established interagency network to provide airspace security planning and support, and to mitigate the impact of classified operations on the National Airspace System (NAS).

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## **Target: Communications Security Program**

Execute the Communications Security (COMSEC) project plan to assure ATO's COMSEC needs for the protection of National Security Information (NSI) are met. Ensure that the project plan, all reviews, reports and the semi-annual inventory inventories are completed IAW FAAO 1600.8. Completion will be evidenced by successful COMSEC audit.

## **Target: Personnel Security Requirements**

Manage personnel security requirements (validate clearances and complete visit access requests) in compliance with FAAO 1600.1E. Validate personnel access level requirements and justify authorizations. Complete a monthly report on personnel security activities by 20th day of following month.

## **Target: Coordinate Classified Operations**

Coordinate and execute national defense, homeland security, and classified aviation operations through established interagency network to provide air traffic support, and to mitigate impact of classified operations on national airspace system.

## **Initiative: Develop Policies and Procedures for Unmanned Aerial Systems (UAS) and Counter-Unmanned Aerial Systems (C-UAS) in the National Airspace System (NAS)**

Identify, define, and develop policies and procedures for safe and secure operations of Unmanned Aerial Systems (UAS) and Counter-Unmanned Aerial Systems (C-UAS) in the National Airspace System (NAS).

### **Activity: UAS Outreach/Communications-ATO**

Engage UAS stakeholders to identify and develop implementation strategies to facilitate the integration of security and emergency operations related to UAS operations into the NAS.

### **Target: C-UAS Coordination**

Review and coordinate all issue-free interagency C-UAS request packages within 30 days of receipt.

### **Target: Develop UAS Detection Test and Evaluation Strategy**

Develop a written strategy that integrates multiple facets of UAS Detection related Test and Evaluation activities for the ATO.

### **Activity: Integrate UAS Security Activities into NAS Operations - ATO**

Develop solutions to unresolved or potential issues associated with integration of UAS.

### **Target: Process 99.7 Requests for "No-Drone" Restrictions**

Process and issue 99.7 request in accordance with interagency JSOPs within 60 days of receiving a complete coordination request package.

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## **Target: Integrate Security Criteria into Low Altitude Authorization**

Develop a written SOP for operationalizing CUAS into the NAS, including fixed, mobile, and temporary sites and equipment.

## **Activity: Provide Technical Support to UAS Security Activities – ATO**

Develop UAS policies and procedures to enable airspace integration goals.

## **Target: Develop UDDS Improvement Strategy**

Develop a written strategy to enhance UDDS including: 1) surface interface improvements; 2) machine-to-machine improvements; and 3) incorporation of additional airspace types (e.g., VIP, stadium, etc.)

## **Target: Develop UAS Security Workflows**

Develop two or more workflows for CUAS and 99.7 coordination processes and implement those workflows through a workflow management platform.

## **Activity: Provide System Operations Security Automation Technical**

Develop infrastructure and modifications to enable safe operations.

## **Target: Revise AJR-2 Automation Strategic Plan**

Revise and complete the AJR-2 Automation Strategic Plan to incorporate evolving UAS Security Requirements.

## **Target: Complete Rollout of NISIS V2**

Complete Fully Mission Capable milestone of NISIS version 2.0.

## **Initiative: Improve Efficiency of Global Air Transportation Services (ATS)**

Improve the efficiency of global ATS by managing air transportation across international boundaries in a manner that is operationally efficient and seamless, with fully harmonized procedures and technologies using the best practices of the industry.

## **Activity: Support ICAO ATM Security**

Meet 95% or greater of API's efforts to support ICAO regarding ICAO's global air traffic management security, civil/military cooperation, crisis response/emergency operations, and other areas as needed.

## **Target: Interagency Group on International Aviation**

ATO will provide subject matter expertise support to API's Interagency Group on International Aviation (IGIA) requests. AJR-2 will provide official response on IGIA requests, through API IGIA Office, for ATM or aviation security and civil/military requests.

# FY 2020 ATO Business Plan



## **Target: ICAO/CANSO Regional Forum Support**

Participate in, and support appropriate ICAO, CANSO and regional forums (including the ICAO Aviation Security [AVSEC] Panel), to strengthen operational ATM security capabilities. Provide leadership and insight to project FAA support for operational air traffic management (ATM) security, and civil/military cooperation. In addition, participate in forums that enable harmonization of operational ATM security issues for FAA NEXTGEN systems with systems of other ANSPs. Provide status/compliance report to Director, AJR-2 monthly.

## **Initiative: ATO UAS Services Plan**

Air Traffic Organization (ATO) action plan that informs the development of air navigation service provider (ANSP) services needed to progressively integrate unmanned aircraft systems (UAS) into the National Airspace System (NAS). This plan has been created for the ATO UAS Leadership Team (ULT) and is based on their UAS priorities. It details the activities necessary to advance those priorities. Each activity is designed such that it could be included in the ATO Business Plan. This ensures priorities are implemented and there is accountability and regular tracking of progress.

### **Activity: ATO UAS Services Plan Key Milestones**

The ATO UAS Services Plan is an Air Traffic Organization (ATO) action plan that informs the development of air navigation service provider (ANSP) services needed to progressively integrate unmanned aircraft systems (UAS) into the National Airspace System (NAS). This plan has been created for the ATO UAS Leadership Team (ULT) and is based on their UAS priorities. It details the activities necessary to advance those priorities.

### **Target: Develop a policy for the pre-approved UAS operating areas for low altitude operations under Part 91.**

Develop a policy for the pre-approved UAS operating areas for low altitude operations under Part 91.

### **Target: Obtain Administrator approval and submit 2209 NPRM to the department.**

Obtain Administrator approval and submit 2209 NPRM to the department.

### **Target: Working Group - Lost Link Occurrences**

Create a working group to identify applicable Air Traffic orders to determine if other insertions or edits are necessary to ensure the specific applicability of existing procedures to lost link occurrences.

### **Target: Support of Urban Air Mobility.**

Conduct analysis on concepts, scenarios, and other artifacts in support of urban air mobility.

### **Target: ATO UAS Services Plan - Dependencies**

Refine ATO UAS Services Plan to identify dependencies among activities.

# FY 2020 ATO Business Plan



## **Target: Use Case 1: Concepts and Requirements**

Identify the need via ONA for new air traffic services to meet emerging demand.

## **Target: Priority 3: Human Resources and Training**

Identify the training needs related to UAS concepts and technologies as new entrants emerge in the NAS. Travel to predetermined facilities to survey and interview workforce.

## **Target: Priority 2: Systems**

Select Industry cohort participants for Remote ID USS

## **Initiative: Reduce Cybersecurity Risk across the NAS**

Progressively improve the NAS risk posture by implementing centralized processes and funding.

### **Activity: Consolidate ATO Cybersecurity Funds**

Consolidate both F&E and OPS cyber-related risk management/mitigation resources to ensure transparency and accounting for cyber investments

### **Target: Consolidate ATO Cybersecurity Funds**

Prioritize ATO Plan of Action and Milestone (POAM) items to support risk-based investment decisions.

## **Deployment of Innovation**

Accelerate and expand the deployment of new technologies and practices by reducing barriers to innovation and actively promoting innovations that enhance the safety and performance of the Nation's transportation system.

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### **Initiative: Remote Towers**

The FAA will work with commercial vendors to support approval of Remote Tower Systems. These systems will potentially provide more cost effective solutions to traditional brick and mortar towers, especially for smaller rural communities.

# FY 2020 ATO Business Plan



## **Activity: Overarching Remote Towers**

Work with ATO Technical Operations and Air Traffic Services to: 1) develop a strategy for long term Remote Tower integration into the NAS and 2) develop a documented process to achieve the approval to integrate Remote Tower systems as an option especially for smaller rural communities.

### **Target: Decision on Remote Tower Operational Viability**

Render agency decision on the level of service the Remote Tower system could provide in an environment similar to that of Leesburg Executive Airport (JYO). This decision will allow the agency to focus on integration process documents going forward. Issue FAA Decision Memo on operational viability of Leesburg vendor's Remote Tower system. Due July 31, 2020. (AJT Lead, ANG/ATO Support)

### **Target: Development of the FAA Remote Tower Operational Safety Assessment and Technical Requirements**

Using version 1 of the Operational Visual Requirements (with no additional edits/caveats), develop a draft system level Operational Safety Assessment for Remote Towers operating in a Visual Flight Rules environment, and an associated draft of Technical Requirements. Due September 30, 2020. (AJW Lead, AJI/ANG Support)

### **Target: Plan and Schedule for FAA Approval the Leesburg vendor's Remote Tower system**

Provide Leesburg Remote Tower vendor the Technical Requirements document developed in Target 2 so they can review and provide any additional system documentation needed to meet evaluation requirements. Due September 30, 2020. (AJW Lead, ANG Support)

## **Initiative: Spectrum**

As part of a cross-agency team, the FAA will assess the feasibility of making bandwidth available for reallocation for non-federal use through the Spectrum Efficient National Surveillance Radar (SENSR) program.

# FY 2020 ATO Business Plan



## **Activity: Execute SENSR program**

Assess the feasibility to improve utilization of radio spectrum and make it available for shared or non-federal use through means such as consolidating surveillance radars through initiatives such as the Spectrum Efficient National Surveillance Radar (SENSR) whose goal is to provide up to 50 MHz of spectrum in the 1300-1350 MHz band for Federal Communications Commission (FCC) auction in support of the 2015 Spectrum Act.

### **Target: Draft Screening Information Request (SIR)**

Complete SENSR preliminary Draft Screening Information Request (SIR).

## **Initiative: Consolidation and Realignment of FAA Services and Facilities (Section 804)**

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

### **Activity: Section 804: Establish Consolidation Timelines for Two Facility Consolidations**

Collaborate with AJW-2 to establish consolidation plans for two TRACON consolidations.

#### **Target: Establish Consolidation Timeline for Identified TRACON Consolidation**

Develop consolidation plan including timeline for Spokane TRACON.

#### **Target: Airspace Realignment Testing**

Complete Airspace Realignment testing for moving Fixed Airspace Volume from One ARTCC to another ARTCC.

#### **Target: Establish Consolidation Timeline for Identified TRACON Consolidation**

Develop consolidation plan including timeline for St. Louis TRACON.

## **Initiative: Air Traffic Services – Operationalize NextGen**

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

### **Activity: Initial Trajectory Based Operations (iTBO) Change Management**

Optimize the Change Strategy plan for the next regional area implementation: NEC and DEN. TBO is Time Based Management (TBM) plus Performance Based Navigation (PBN).

#### **Target: Initial Trajectory Based Operations (iTBO)**

Sustain and enhance the training of the Change Strategy Team. This effort includes facility and associated district outreach for NEC Initiatives and DEN Initiatives.

#### **Target: Initial Trajectory Based Operations (iTBO)**

Continue the training and support of the Field Implementation Teams at two new areas: NEC and DEN. The main steps are: (1) Giving the selectees an understanding of TBO through a coordinated effort with FAA HQ; (2) Training document orientation and execution and (3) Conveyed communication expectations.

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## **Activity: The Northeast Corridor (NEC)**

Improve departure management for flights destined to LGA.

### **Target: The Northeast Corridor (NEC)**

Improve departure management for flights destined to LGA.

## **Activity: Standards & Procedures Support for Time Based Flow Management (TBFM)**

Enhance the FAA's efficiency and optimize demand and capacity by supporting the expansion of TBFM and its capabilities to additional locations.

### **Target: Standards & Procedures Support for Time Based Flow Management (TBFM)**

Support future implementation of Time Based Flow Management (TBFM) capabilities by participating in at least one TBFM customer forum.

### **Target: Standards & Procedures Support for Time Based Flow Management (TBFM)**

Support the implementation of one Integrated Departure and Arrival Capability (IDAC) site.

### **Target: Standards & Procedures Support for Time Based Flow Management (TBFM)**

Support the implementation of Integrated Departure and Arrival Capability (IDAC) at a second site.

## **Activity: Consolidated Wake Turbulence (CWT)**

Implement Wake Recategorization at planned sites by the end of Fiscal Year (FY) 2020. This will be done in collaboration with AJV-8, AJM-2 and ANG-C.

### **Target: Consolidated Wake Turbulence**

Implement Consolidated Wake Turbulence at four (4) facilities.

### **Target: Consolidated Wake Turbulence**

Implement Consolidated Wake Turbulence at three (3) additional sites.

# FY 2020 ATO Business Plan



## **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: Voice Switching and Control System (VSCS) - Sustainment 4**

Complete Preliminary Design Review (PDR) for remanufacturing effort of VSCS GRIM/BUCC circuit card assembly.

## **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: Communications Facilities Expansion (CFE)**

Establish, replace, and/or upgrade three (3) CFE sites.

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## **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. Deploy 1500 Terminal and Flight Services Air Traffic Control Radios.

#### **Target: Next-Generation VHF A/G Communication System (NEXCOM2) - Phase 2**

Achieve Operational Readiness Date for 80 NEXCOM sites.

#### **Target: Next-Generation VHF A/G Communication System (NEXCOM2) - Phase 2**

Deploy 1000 radios.

## **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: Airport Cable Loop Systems Sustained Support**

Complete two (2) Airport Cable Loop projects.

# FY 2020 ATO Business Plan



## **Initiative: Aviation Surface Weather Observation Network (ASWON) Technology Refresh**

Weather observations are provided to NAS controllers and aviation users by weather radars and automated surface weather stations. Hundreds of these legacy weather providers continuously stream minute-by-minute weather observations, machine-to-machine into NAS Weather Processing Systems, Automation Systems, and NextGen User Decision Support Tools. NextGen Portfolios may plan alternatives to eventually replace many legacy weather providers, yet budget and program changes to the replacement plans often leave indefinite, the remaining service life of legacy sensor systems subject to significant extensions. This initiative ensures no gaps in service of legacy weather observation providers throughout the NextGen transition, no matter whether replacement plans and deployment schedules may change or cease altogether. Relationship to Measure: ASWON portfolio (Programs: ASOS, AWOS, AWSS, SAWS, DASI, WEF, WME) in total account for seven, in-service, weather sensor programs that contribute to the 2016 Strategic Measure through sustained and continuous measurement of the atmosphere at the surface and aloft, collecting millions of observations each flight day, used to detect weather features, derive constraints to the free flow of air traffic, alert for weather hazards, and to fuel weather forecasts essential to the efficiency of NAS operations. The ASWON Portfolio serves and benefits every airport and every flight in the United States each flight day, by helping reduce delay, increase efficiency, and cope with severe weather.

### **Activity: Aviation Surface Weather Observation Network (ASWON) Sustainment 1**

Aviation Surface Weather Observation Network (ASWON) Technology Refresh

#### **Target: Aviation Surface Weather Observation Network (ASWON) Sustainment 1**

Complete DASI Tech Refresh at the last airport.

#### **Target: Aviation Surface Weather Observation Network (ASWON) Sustainment 1**

Complete F-420 (WEF) Tech Refresh at the last airport

#### **Target: Aviation Surface Weather Observation Network (ASWON) Sustainment 2**

Complete draft Shortfall Analysis Report (SAR)

## **Initiative: Weather Radar Program NEXRAD**

The NEXRAD SLEP program will resolve obsolescence and supportability issues associated with four major components that need to be replaced or refurbished to allow the NEXRAD system at each of the twelve FAA sites to meet its operational requirements until 2030. The twelve FAA sites are located in Alaska (7), Hawaii (4) and Puerto Rico (1). Further, the program will continue the development of unique FAA algorithms to meet aviation requirements. Efforts will be focused on developing enhancements to the icing and hail algorithms. The NEXRAD is an existing tri-agency system that provides safety and traffic management services throughout the National Airspace System (NAS) from National Weather Service (NWS) sites, Air Force (AF) sites and Federal Aviation Administration (FAA) sites. The tri-agency NEXRAD program includes 160 operational sites that provide data to the national radar network. The NEXRAD was designed for a 20-year life. The present average age of the NEXRAD systems is 17 years.

# FY 2020 ATO Business Plan



## **Activity: NEXRAD- Sustainment 1**

The NEXRAD SLEP program includes four projects as detailed below: Signal processor (replacement) Radar Transmitter (refurbishment) Radar pedestal (refurbishment) NEXRAD facilities including structures, buildings, security fences, and access roadways (refurbishment).

### **Target: NEXRAD- Sustainment 1**

Complete installation of transmitter chassis refurbishment at last operational site.

### **Target: NEXRAD- Sustainment 1**

Complete installation of transmitter modulator refurbishment at last operational site

### **Target: Next Generation Weather Radar (NEXRAD) Sustainment 1**

Complete pedestal refurbishment at 4 FAA sites.

## **Initiative: GSA Enterprise Infrastructure Solution (EIS)**

GSA Enterprise Infrastructure Solution (EIS)

### **Activity: GSA Enterprise Infrastructure Solution (EIS)**

Non-FTI/FENS Task Order

### **Target: GSA Enterprise Infrastructure Solution (EIS)**

Transition/Transform 50 services.

## **Initiative: Integrated Enterprise Service Platform (IESP)**

Integrated Enterprise Service Platform (IESP)

### **Activity: IESP- Enhance hosting capability**

IESP- Enhance hosting capability

### **Target: Integrated Enterprise Service Platform (IESP)**

Upgrade IESP HP OpenView monitoring suite to ensure supportability by the vendor and enhance monitoring capabilities for NEMC Tech Ops specialists.

## **Initiative: Air Ground Media Gateway**

Air Ground Media Gateway (AGMG)

### **Activity: Air Ground Media Gateway (AGMG) Development**

Air Ground Media Gateway (AGMG) Development

### **Target: Air to Ground Media Gateway (AGMG) Deployment**

Complete Site Survey at Last ARTCC.

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## **Target: Air to Ground Media Gateway (AGMG) Development**

Complete Factory Acceptance Testing (FAT).

## **Target: Air to Ground Media Gateway (AGMG) Development**

Complete System Test.

## **Initiative: System Wide Information Management (SWIM)**

The System Wide Information Management (SWIM) Program is a National Airspace System (NAS)-wide information system that supports the FAA Next Generation Air Transportation System (NextGen). It is the NextGen focal information management and data sharing system.

### **Activity: System Wide Information Management (SWIM)**

SWIM is the NextGen focal information management and data sharing system. SWIM collects and disseminates information and provides services to the aviation community.

### **Target: System Wide Information Management (SWIM) Seg 2B**

Complete ESM Phase 3 Initial Operational Capability.

### **Target: System Wide Information Management (SWIM) Seg 2B**

Complete STDDS Phase 2 Release 5 Initial Operational Capability.

## **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: System Wide Information Management (SWIM) Seg 2C**

Complete On ramping of the first 25 users to SWIM Cloud Distribution Service (SCDS).

## **Initiative: Data Comm - Segment 1 Phase 2 Initial En Route Svc**

Data Comm - Segment 1 Phase 2 Initial En Route Svcs

### **Activity: Data Comm - Segment 1 Phase 2 Initial En Route Svcs**

Data Comm - Segment 1 Phase 2 Initial En Route Svcs

### **Target: Data Comm - Segment 1 Phase 2 Initial En Route Svcs**

Achieve first-Site Initial Operational Capability (IOC).

### **Target: Data Comm - Segment 1 Phase 2 Initial En Route Svcs**

Achieve In-Service Decision for En Route Initial Services.

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## **Target: Activate Service Volumes for all 20 ARTCCs to support En Route Initial Services deployment**

Activate Service Volumes for all 20 ARTCCs to support En Route Initial Services deployment.

## **Initiative: Data Comm - Full En Route Svcs**

Completion of Data Comm Full En Route Services

### **Activity: Data Comm - Full En Route Svcs**

Completion of Data Comm Full En Route Services

### **Target: Data Comm - Full En Route Svcs**

Contractor Full Services Software Development Complete – Transition to Contractor Test.

## **Initiative: Regions (ARA) Support for Northeast Corridor (NEC)**

Support agency efforts to harness NextGen capabilities at focused implementation sites to improve infrastructure, schedule reliability, and reduce delays within the Northeast Corridor.

### **Activity: Internal Activity: Support Improvements in the Northeast Corridor (NEC)**

Support ARA in providing program management support and coordination to assist in the prioritization of activities that support the Northeast Corridor Initiative. The Northeast Corridor includes Boston, NY, PHL and DC.

### **Target: Support Improvements in the Northeast Corridor (NEC)**

Support improvements in the Northeast Corridor by working with the NextGen Advisory Committee (NAC) and NAC working groups as needed.

## **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).

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## **Activity: FAA Enterprise Network Services (FENS)**

Achieve Initial Investment Decision (IID) in support of FENS Screening Information Request (SIR) and fully analyze two alternatives - Integrated Service Delivery Model and Partitioned Service Delivery Model.

### **Target: FAA Enterprise Network Services (FENS)**

Begin Final Investment Decision (FID) artifact development by end of FY20.

## **Initiative: Spectrum**

As part of a cross-agency team, the FAA will assess the feasibility of making bandwidth available for reallocation for non-federal use through the Spectrum Efficient National Surveillance Radar (SENSR) program.

### **Activity: Spectrum Efficient National Surveillance Radar (SENSR) program, S16.01-01**

Assess the feasibility to improve utilization of radio spectrum and make it available for shared or non-federal use through means such as consolidating surveillance radars through initiatives such as the Spectrum Efficient National Surveillance Radar (SENSR) whose goal is to provide up to 50 MHz of spectrum in the 1300-1350 MHz band for Federal Communications Commission (FCC) auction in support of the 2015 Spectrum Act.

#### **Target: Complete the final Spectrum Efficient National Surveillance Radar (SENSR) feasibility study report.**

Complete the final Spectrum Efficient National Surveillance Radar (SENSR) feasibility study report.

#### **Target: Spectrum Efficient National Surveillance Radar (SENSR) - Complete all Initial Investment Decision (IID) artifacts to support a Joint Resource Council (JRC) decision.**

Spectrum Efficient National Surveillance Radar (SENSR) - Complete all Initial Investment Decision (IID) artifacts to support a Joint Resource Council (JRC) decision.

#### **Target: Submit Spectrum Efficient National Surveillance Radar (SENSR) Pipeline Plan.**

Submit Spectrum Efficient National Surveillance Radar (SENSR) Pipeline Plan.

## **Initiative: Modernization and Consolidation of Training Technology Systems**

Enhance Safety in the NAS through the use of advanced technology and tools and systems.

### **Activity: Modernization and consolidation of the Training Technology systems**

Continue the modernization and consolidation of the Training Technology systems.

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## **Target: Modernization of Technical Operations Call for Training and Quota Management Process**

Update the prioritization policy for the FY21 Call for Training and develop new hire training plans in eLMS.

## **Target: Deployment of the Training Enterprise Applications and Management (TEAM)**

Complete the deployment of the Training Enterprise Applications and Management (TEAM) system to the Air Traffic Control facilities that meet the requirements of the TEAM facility configuration checklist.

## **Target: iPad Deployment**

Begin issuing iPads to Academy students and Implement the program plan for the integration of iPads into the Academy curriculum.

## **Target: Safety and Technical Training Technology Capital Investment Program documentation**

Develop the Safety and Technical Training Technology Capital Investment Program documentation to initiate the capital investment in FY2022.

## **Initiative: Standardization of Post Course Surveys and Tools used to evaluate Courseware**

Initiate Standardization of AJI-2 Administration of Post Course Survey and Tools used to evaluate Courseware.

### **Activity: Start Transition of AJI-2 Post Course Evaluation and Evaluation of Courseware**

Initiate the transition of Technical Training administration of post-course learner surveys, as well as the comprehensive, detailed evaluation of a particular course or workshop to determine its effectiveness.

### **Target: Transition of Post-Learner Surveys**

Transition ATO curriculum surveys from the Academy Evaluation Survey (AES) system to eLMS.

### **Target: Update tool currently used to evaluate Courseware**

Research various tools/systems in the Agency currently used to evaluate courseware and identify an enterprise system solution.

## **Initiative: AJV - Airspace Modernization**

The goals of the 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.

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## **Activity: Reduction of Legacy and Underutilized IFPs**

Complete National Procedure Assessment (NPA) activities supporting the reduction of legacy and underutilized IFPS and implementation of a resilient NAS navigational infrastructure under the PBN NAS Navigation Strategy.

### **Target: Reduce legacy and underutilized Instrument Flight Procedures (IFP)**

Reduce legacy and underutilized procedures by at least 1,000.

### **Target: IFP Periodic Review process**

Complete activities to add IFP Periodic Review process within the 7210.3.

### **Target: Procedures and/or Circling Lines of Minimums**

Complete coordination process on identified possible procedures and/or circling lines of minimums.

## **Activity: Northeast Corridor - NAC Recommendations**

The Northeast Corridor (NEC) is defined as the airspace that spans from Washington, D.C. to Boston and includes Philadelphia and the New York area. The NEC contains the most congested airports and airspace in the United States and has a significant impact on daily operations in the National Airspace System (NAS). The FAA, in collaboration with the NextGen Advisory Committee (NAC), agreed in 2017 to make the NEC a NextGen priority focus area.

### **Target: PHL 27R/35 for RNAV**

Implement CRDA application for PHL 27R/35 for RNAV approaches.

### **Target: ZNY offshore PBN routes**

Implement ZNY offshore PBN routes.

### **Target: Feasibility analysis for EWR 22L/11 to lower minima.**

Conduct CRDA feasibility analysis for EWR 22L/11 to lower minima.

### **Target: CRDA Feasibility Analysis for EWR 4R/29**

Conduct CRDA feasibility analysis for EWR 4R/29 to lower minima.

### **Target: Analysis of applying 7110.308 at EWR**

Conduct analysis to evaluate the impact and benefit of applying 7110.308 at EWR.

## **Activity: Publications to HTML via Coding**

Convert three major AJV publications to HTML through a styling and coding process to comply with Section 508/WCAG 2.AA mandates by the DOT and post the publications on the Air Traffic Procedures website, improving user experience, search capability, and increasing the accessibility of the publications.

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## **Target: Convert FAA Order JO 7210.3 to HTML**

Convert FAA Order JO 7210.3, Facility Operation and Administration, to HTML and post on the Air Traffic Procedures website.

## **Target: Convert FAA Order JO 7400.2 to HTML**

Convert FAA Order JO 7400.2, Procedures for Handling Air Space Matters, to HTML and post on the Air Traffic Procedures website

## **Target: Convert FAA Order 7930.2 to HTML**

Convert FAA Order 7930.2S, Notices to Airmen (NOTAM), Flight Services, to HTML and post on the Air Traffic Procedures website.

## **Activity: Performance Based Navigation (PBN) - NAC Recommendations**

Optimized Profile Descents (OPD) are improving descent profiles at Boston Logan International Airport, as evidenced by more continuous descents, with less time and distance in level flight, according to analysis by the JAT. Approximately 30 kilograms (kg) of fuel savings per flight are attributable to OPDs for flights that reach cruise altitude outside 200 nautical miles from Boston, and approximately 20–25 kg for flights that reach cruise altitude inside 200 nautical miles.

## **Target: Metroplex at South/Central Florida Design**

Implement Metroplex at South/Central Florida, SID, and STAR - 100 percent design complete.

## **Target: Metroplex at LAS: Implementation Start**

Implement Metroplex at LAS: Implementation phase start.

## **Target: Metroplex at LAS: Implementation Complete**

Implement Metroplex at LAS: implementation phase complete.

## **Target: Metroplex at CLE/DTW: Post-implementation Complete**

Implement Metroplex at CLE/DTW - Post-implementation phase complete.

## **Target: Metroplex at DEN: Implementation Start**

Implement Metroplex at DEN - Implementation phase start.

## **Target: Metroplex at DEN: Implementation Complete.**

Implement Metroplex at DEN: Implementation phase complete.

## **Target: Joint analysis on potential barriers**

Joint analysis with industry on potential barriers that inhibit the consistent use of EoR procedures at six NSG 1-4 airports in the NAS.

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## **Activity: Enhanced Air Traffic Service (EATS)**

Section 547 of the FAA Reauthorization Act of 2018, directs the FAA Administrator to establish an Enhanced Air Traffic Services (EATS) pilot program, which shall provide air traffic control (ATC) services on a preferential basis to aircraft equipped with certain NextGen avionics. This program shall take place for at least 2 years, at least 3 suitable airports, for at least 3 hours each day. This pilot program is meant to support the business case for aircraft operators to equip with these avionics by providing preferential service to capable aircraft. Implementation NLT September 2021–2023.

### **Target: Industry Recommendations**

Consult with stakeholders and receive industry recommendations on EATS pilot program.

### **Target: Pilot Program Locations**

Identify the three pilot program locations.

## **Activity: National Airspace System Modernization and Sustainment**

Provide Planned Projects that are Predictable, Integrated and Completed on Time. Provide integrated planning, requirements management, and program implementation management support to assist ATO Service Units, and other FAA organizations as requested, with implementing and managing ATO services and infrastructure within the Service Areas. This is done through the establishment and management of data-driven decision based executable workplans, to support effective workforce planning, and leveraging the best project management practices throughout the agency.

### **Target: 75% of assigned projects are on-time**

Ensure 75% of assigned projects are on-time in accordance with the current baseline scope agreement.

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Ensure 75% of assigned projects are on-time in accordance with the current baseline scope agreement.

### **Target: Ensure 75% of assigned projects are on-time**

Ensure 75% of assigned projects are on-time in accordance with the current baseline scope agreement.

## **Activity: 3-Ts**

Future Flow Management (FFM) builds on the FAA's initial Trajectory Based Operations (iTBO) concept to develop a future traffic flow management (TFM) operational vision for the next five to seven years. FFM will describe how traffic managers across facilities types can collaborate to support operational needs for TBO while also preserving operational efficiency.

### **Target: 3-Ts**

Deliver technical letter describing contributions towards the "as-is" description.

# FY 2020 ATO Business Plan



## **Target: 3-Ts**

Deliver report for the initial definition of the “to-be” environment for FFM

## **Target: 3-Ts**

Deliver two reports detailing the outcomes of external stakeholder meetings to identify impacts and opportunities for FFM.

## **Activity: IFPA TARGETS Enterprise Integration**

Instrument Flight Procedures Automation (IFPA) Tech Refresh Sustainment 2 (CIP#:A14.02-03): The FAA IFPA program is a mixed lifecycle information technology tool suite, including an upgrade of both commercial off-the-shelf (COTS) hardware and software. The IFPA tool suite provides functionality for aeronautical information specialists to design, develop and maintain instrument flight procedures for navigation of the NAS. During Sustainment 2, the Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) tool platform will progress through a series of iterations to integrate TARGETS into the IFPA enterprise. The objective of each phase or iteration is to advance the software to a level that provides increased functional capability from one or more of the system components or modules, evolving from an immature non-integrated to a mature integrated state providing an automated electronic means of information sharing.

## **Target: TARGETS Enterprise Integration Development Test**

IFPA (A14.02-03): TARGETS Enterprise Integration Development Test (DT) completion.

## **Target: TARGETS Enterprise Integration Operational Test**

IFPA (A14.02-03): TARGETS Enterprise Integration Operational Test (OT) completion.

## **Activity: Feasibility of Las Vegas McCarran International Airport to participate in FAA Order JO 7110.308**

Collaborate with the NextGen Technology Development & Prototyping Division – Navigation Branch (ANG-C51) to determine the feasibility of Las Vegas McCarran International Airport to participate in FAA Order JO 7110.308, Simultaneous Dependent Approaches to Closely Spaced Parallel Runways (CSPR) procedures.

## **Target: Feasibility of Las Vegas McCarran - 7110.308**

Update FAA Order JO 7110.308 to add Las Vegas McCarran International Airport to the list of airports authorized to conduct operations in accordance with FAA Order JO 7110.308, Simultaneous Dependent Approaches to Closely Spaced Parallel Runways (CSPR).

## **Accountability**

Serve the Nation with Reduced Regulatory Burden and Greater Efficiency, Effectiveness and Accountability.

## **Regulatory Reform**

# FY 2020 ATO Business Plan



Reduce current regulatory burdens and bureaucracy to ensure a safe, efficient, accessible, and convenient transportation system for people and commerce.

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## **Initiative: Outreach and Special Emphasis Programs**

Assist the Agency in building a Model EEO Workplace through outreach, consultations, collaboration, and educational partnerships.

### **Activity: ACR Aviation Development Program (ADP) Implementation**

In FY2020, initiate the Aviation Development Pilot at designated (or selected) Air Route Traffic Control Centers (ARTCCs).

#### **Target: Analysis of Training**

Track and evaluate the custom designed technical training program for ADP candidates to develop a baseline for future analysis to ensure an effective and consistent implementation of the ADP program.

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

Utilize the EEO Action Committee (EAC) to collaborate and support a diverse and inclusive workplace with existing employee workgroups, LOBs/SO, to create an inclusive work environment.

### **Activity: ATO Ensure a Diverse and Inclusive Workforce**

- ATO will complete activities that will foster a diverse and inclusive workplace and improve the Reasonable Accommodation interactive process.
- Assist in development of a diverse workforce at all levels. Increase the representation of Persons with Targeted Disabilities (PWTD), Hispanics, and Women in the workforce as compared to the civilian labor workforce (CLF).
- Provide EEO training to managers and employees.
- Managers engage in the mediation/facilitation process.

#### **Target: Reasonable Accommodation Requests**

Ensure 90% of ATO reasonable accommodation requests are processed within 25 business days or less.

#### **Target: Improve Participation/Outreach**

Develop strategies to improve the representation of Persons with Targeted Disabilities (PWTD), Hispanics, and Women by providing resources and data analysis to LOB/SOs to increase the workforce as compared to the civilian labor workforce (CLF) and/or MD-715, Part J). These strategies will address hiring, training, career progression opportunities and will be deployed and tracked through the EAC Workgroups.

#### **Target: EEO Training**

Monitor the delivery of EEO training to 70% of ATO managers and 20% of ATO employees.

# FY 2020 ATO Business Plan



## **Target: Mediation**

Ensure that 75% of all ATO managers engage in mediation when requested by employees.

## **Mission Efficiency and Support**

Support mission requirements by efficiency and effectively planning for and managing human capital, finances, procurement, sustainable operations, information technology, emergency preparedness, and other mission support services.

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### **Initiative: Contracting Opportunities for Small Businesses**

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.

#### **Target: AJG - Support ACQ's Small Business efforts**

Award at least 25% of the total AJG direct procurement dollars to businesses.

### **Initiative: Strong Acquisition Workforce**

Ensure FAA 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.

#### **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) T4**

Ninety percent of program managers managing Acquisition Categories (ACAT) 1-3 programs and/or major acquisition programs as defined by FAA and OMB Circular A-11 will attain/maintain certification requirements in accordance with AMS policy.

### **Initiative: NAS Facilities OSHA and Energy Management F13.04-02**

Reduce operating costs related to energy and water consumption

# FY 2020 ATO Business Plan



## **Activity: NAS Facilities OSHA and Energy Management**

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

### **Target: NAS Facilities OSHA and Energy Management**

Complete advanced electric meter installation at two facilities.

## **Initiative: Employee Safety**

Environmental and Occupational Safety and Health Services will improve the employee well-being and environment through technical assistance, employee training, job hazard assessments, compliance monitoring, and corrective actions.

### **Activity: Employee Safety**

Complete OSHA and Environmental Standards Compliance to help ensure employee safety at FAA facilities and sites.

#### **Target: Employee Safety**

Complete 125 arc flash hazard analyses (AFHA) at large facilities (e.g. ARTCC, TRACON, or ATCT) in compliance with FAA and OSHA requirements and National Fire Protection Association (NFPA 70) consensus standard to determine the shock and arc flash required personal protective equipment.

## **Initiative: NAS Facilities OSHA & Environmental Standards & Environmental and Occupational Safety and Health F13.03-00**

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

### **Activity: NAS Facilities OSHA & Environmental Standards Compliance Environmental and Occupational Safety & Health (EOSH)**

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 30 facilities.

#### **Target: Abate Asbestos**

Abate asbestos containing materials at 8 facilities.

#### **Target: Fire Systems Electrical Generators**

Replace fire system electrical generators at 9 facilities.

## **Initiative: Environmental Cleanup (HAZMAT) F13.02-00**

Liability Mitigation: Reduce the FAA outstanding environmental remediation liability.

# FY 2020 ATO Business Plan



## **Activity: Environmental Cleanup**

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 reductions of 46 identified Areas of Concern.

## **Initiative: Air Traffic Services Business Analytics – Use information to Improve System Performance**

AJT Business Analytics supports Air Traffic Services leadership through the development and implementation of Business Utilization and Resource Standardization Tools (BURST), Operational Planning and Scheduling Tool (OPAS) 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.

## **Activity: Implementation of Facility Work Plan (FWP) in all FAA operated facilities**

Improve field site resource planning and utilization via web tool for all facilities to plan resource usage and allow for pay period monitoring of the usage. Tracking of OJT, Overtime, Time on Position, Leave, Other Training and Other Duties will be planned and tracked throughout the fiscal year.

### **Target: Improve field site resource planning**

Review, assess and incorporate changes such as refining existing tabs in the Facility Work Plan (FWP) and reviewing FY20 plans through automated dashboards.

### **Target: Improve field site resource planning**

Train Field Managers on new requirements or expectations for FY20. Finalize changes and training to ensure clear messaging of the requirement regarding the population of data in the revised Facility Work Plan (FWP).

### **Target: Improve field site resource planning**

Complete quarterly review of data on the revised Facility Work Plan (FWP) through dashboards and reporting.

## **Activity: Development of ATO Data and Analytics Working Group**

Establish a working group to network, share information, and define capabilities and requirements to improve collaboration, which will reduce duplication of effort and ensure accurate and consistent results.

# FY 2020 ATO Business Plan



## **Target: Develop a working group charter and obtain ATO OG support**

Develop a cross-Service Unit charter for this working group, capturing roles and responsibilities, desired goals, and a roadmap for improved data and analytics in the Air Traffic Organization. Share the charter with ATO's Officers Group (OG) and obtain support with resources and strategic direction.

## **Target: Identify ATO authoritative data sources**

Identify data sources, owners, users and purposes of data, and determine what sources of data are authoritative for analysis and reporting within the ATO. Develop documentation that defines and, as appropriate, describes data sources. As appropriate, establish data user groups. Produce a report and recommendations for senior ATO leadership.

## **Target: Develop ATO Data Strategy Roadmap**

Develop a roadmap for development of an ATO Data Strategy and a long-term plan for enhancing data collection and analytics capabilities within the ATO.

## **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**

Achieve Initial Operational Capability (IOC) for ATOMS 1.0.

### **Target: Implement ATOMS**

Complete development of Training Course(s).

## **Activity: Create an improved process to request field resources in support of high priority programmatic needs**

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

### **Target: PMT Development**

Initiate the development of Program Management Tool (PMT) to replace current PMT-Lite.

### **Target: PMT Testing and Training**

Complete Release 3 with User Acceptance Testing (UAT).

### **Target: PMT Deployment**

Complete deployment of PMT nationwide.

# FY 2020 ATO Business Plan



## **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**

Conduct Technical Training of personnel to build, teach and continuously update New York TRACON's training materials.

#### **Target: Monitor and Improve**

Continuously monitor the training program, starting with Academy training, and gather feedback that will help derive necessary adjustments to meet the Agency goals.

## **Initiative: Air Traffic Services - Integration of UAS and Commercial Space Operations into the NAS**

Integrate Unmanned Aircraft Systems (UAS) and Commercial Space operations into the national airspace system without introducing unacceptable levels of risk, while providing a secure and more efficient system.

### **Activity: ATO UAS Security**

Support the development and maturity of policies/procedures for the integration of UAS security activities.

#### **Target: Participate in strategic concept/policy development**

Participate in working groups to develop strategic concept and policy and provide UAS security inputs from an operational perspective.

#### **Target: Support operational reviews and the determination of authorized operating areas**

Determine operational impacts when deploying UAS in support of emergency operations.

#### **Target: Participate in the review of UAS applications**

Participate in the coordination and establishment of new airspace, Temporary Flight Restrictions (TFR), and 99.7 Special Security Instructions (SSI) for UAS security operations.

### **Activity: Integration of UAS and Commercial Space Operations**

Collaborate with other FAA LOBs, ATO Service Units, Federal and industry partners to assess and recommend changes to support safe, secure, and efficient integration of UAS and Commercial Space operations throughout the NAS.

# FY 2020 ATO Business Plan



## **Target: Support capability development to detect, mitigate, and recover activities at Core 30 airports**

Assist in the development of capabilities to detect, mitigate, and recover from disruptions caused by errant or malicious UAS operations at the Core 30 airports.

## **Target: Maintain Awareness**

Conduct interactive customer forums with selected facilities to identify operational needs related to UAS and Commercial Space operations. Identify needs and gaps in policies, procedures and training.

## **Target: Support Operational Needs**

Deliver gap findings on policies, procedures and training.

## **Activity: Unmanned Aircraft Systems (UAS) Traffic Management (UTM)**

Support the development and maturity of Unmanned Aircraft Systems Traffic Management (UTM).

## **Target: Assist in the development of LAANC**

Assist in the further development of LAANC as the tool matures.

## **Target: Assist in the UAS FM development of segment values, grid size and shape**

Support development of NASA/FAA UTM (UAS Traffic Management), UAM (Urban Air Mobility) and SIO (System Integration and Operationalization) projects.

## **Activity: AJT Training**

Support modification of current training products and assist in the development of new training as required for Air Traffic operational personnel.

## **Target: Assess National/Facility-level training**

As needed, assist in the evaluation of national and facility-level training for Air Traffic operational personnel relating to UAS and Commercial Space operations, policy and procedure changes.

## **Target: Update/Develop National/Facility-level training**

As needed, assist in the updating and development of national and facility-level training and create new training as required for Air Traffic operational personnel.

## **Initiative: Customer Experience and Mission Completion**

Identify and leverage internal best practices from government and industry for customer experience and mission completion.

## **Activity: Customer Experience and Mission Completion**

Identify and leverage internal best practices from government and industry for customer experience and mission completion.

# FY 2020 ATO Business Plan



## **Target: Customer Experience and Mission Completion**

Follow-up and respond (where response is appropriate) to 95% of Aviation Safety Training Customer Experience Questionnaires.

## **Target: Customer Experience and Mission Completion**

Successfully complete 90% of all scheduled Aviation Safety Training mission flights at the AFW Facility.

## **Initiative: AIT Key Operational and Project Management Activities**

This initiative represents key activities and projects performed by AIT which are not clearly aligned under other AFN Initiatives and serves as a repository for short term incentives for AIT Executives.

### **Activity: Deployment of Windows 10**

Continue Windows 10 deployment to AIT managed clients.

### **Target: ATO Plan to upgrade to Windows 10**

AJW and AIT will develop a plan for the remaining Windows 7 based MDT/SLE computers to upgrade to Windows 10

## **Initiative: Identify AJI-0 Related Processes, Functions and Programs to be Enhanced Through Automation**

Identify potential processes, functions and programs owned by AJI-0 that can be enhanced through automation.

### **Activity: Analyze and Identify Needs**

Identify AJI-0 processes, functions, and programs for possible automation.

### **Target: Conduct an Inventory**

Conduct an inventory of tools, databases, and processes currently utilized within AJI-0.

### **Target: Develop a List**

Develop a prioritized list of processes and programs, that when automated, would provide benefit AJI-0.

### **Activity: Document Automation Requirements**

Document automation requirements and project plans for at least two or more processes, functions or programs selected for automation.

### **Target: Identify Requirements**

Identify requirements and timelines for implementation at least two selected processes, functions, or programs to be automated.

# FY 2020 ATO Business Plan



## **Target: Develop Project Plans for Implementation**

Develop Project Plans for Implementation for at least two or more selected processes, functions, or programs to be automated.

## **Initiative: Educating and Preparing AJI Workforce**

Educate, prepare, and grow AJI leaders from within.

### **Activity: Grow AJI leaders from within the organization.**

Provide AJI Workforce Development resources and programs.

### **Target: CY20 AJI Leadership Development Calendar**

Establish a CY20 monthly training plan/schedule to implement leadership development strategies across AJI.

### **Target: Developmental Training and Seminars**

Support the delivery of training and seminars for management and staff in accordance with the CY20 monthly training plan/schedule.

### **Target: Developmental Resources**

Implement a Resource Management Dashboard to increase business acumen of AJI Leadership.

### **Activity: EEO/Diversity Training**

Increase workforce competency of EEO laws, FAA policies and appropriate workplace behavior through EEO Training.

### **Target: Educating Managers**

70% of AJI Managers will complete EEO/Diversity Training.

### **Target: Educating Employees**

20% of AJI employees will receive EEO/Diversity Training.

## **Initiative: Enhance AJI Communication with Internal and External Stakeholders through Planning**

Utilize communications plans as appropriate to effectively disseminate information to AJI personnel and external stakeholders.

### **Activity: Develop a Communications Plan to Effectively Disseminate Information to Internal Stakeholders Regarding the AJI Strategy.**

Develop a communications plan to effectively disseminate information to Internal AJI personnel at headquarters and in the field of the AJI Strategy.

# FY 2020 ATO Business Plan



**Target: Develop AJI Strategy Communications Vehicles to be used for AJI personnel at HQ and in the field.**

Develop tailored AJI Strategy communication vehicles based on the intended audience to be used for AJI personnel at HQ and in the field.

**Target: Document a Plan for communicating the AJI Strategy to AJI personnel at HQ and in the field.**

Document a Plan for communicating the AJI Strategy to AJI personnel at HQ and in the field to include timelines and locations.

**Activity: Develop a Communication Plan to Effectively Disseminate Information to External Stakeholders Regarding the AJI Strategy**

Develop a Communication Plan to Effectively Disseminate Information to ATO organizations External to AJI of the AJI Strategy.

**Target: Develop Tailored AJI Strategy Communication Vehicles to be Used When Briefing External Stakeholders.**

Develop tailored AJI Strategy communication vehicles based on the intended audience to be used when briefing ATO organizations External to AJI.

**Target: Document a Plan for Communicating the AJI Strategy to External Stakeholders.**

Document a Plan for communicating the AJI Strategy to ATO organizations External to AJI to include timelines and locations.

**Initiative: Budget Analysis and Formulation - Use Information to Improve System Performance**

Formulate ATO budgets - Pay and Non-pay; Manage the Operations Review Board (ORB) process; Monitor, track, report, and analyze current and historical data; Review of Ops Requirements; OST, OMB, Congressional Q&A coordination; Allowance distribution.

**Activity: Automation Efficiencies**

AJG-R3 will propose and coordinate changes with AJG-R1 and P1 to enhance the tools used to ensure automation efficiencies are achieved for all pay and non-pay formulation, presentation, forecasting and reporting activities.

**Target: AJG-R38**

AJG-R38 will propose and coordinate with AJG-R1 and P1 on changes for the pay portion of the FIT tool suite that will provide periodic, historical, and forecast useful pay and staffing information.

**Target: AJG-R37**

AJG-R37 will ensure the smooth transition to the Discretionary Increase Requests (DIRs) tool in the ORB through testing training, and surveying users of the tool.

# FY 2020 ATO Business Plan



## **Target: AJG-R35**

Jointly with AJG-R1, AJG-R35 will continue automation of the ATO Dashboard tableau interface, Allowance Identification Document (AID) module of the ORB tool, the Allowance Change Transaction (ACT) module, and other tools and applications needed to efficiently support our customers.

## **Activity: Facilitate OST/OMB/President Budget Formulation Activities to meet internal due dates**

OST and OMB require periodic information from the FAA to complete the annual FAA Budget. AJG-R3 will facilitate the appropriate activities in order to meet internal due dates.

## **Target: TOMs / DIRs**

Provide guidance and assistance in the development of Transition to Operations & Maintenance (TOMs) and Discretionary Increase Requests (DIRs).

## **Target: ZBB and Base Transfer Requests**

Provide guidance, assistance, and consolidation of Budget Narrative Updates and Zero-Based Budget (ZBB) requests. Provide guidance and assistance in the development of Base Transfer Requests. Collaborate with AJG-R1 closely on these deliverables.

## **Activity: Improve customer service in Financial Services**

Improve customer service in Management Services, Budget Analysis and Formulation, Operations Review Board (ORB).

## **Target: Outreach and Lessons Learned meetings**

Conduct annual Operations Review Board (ORB) Outreach meetings with customers in both headquarters and the field to gather information on lessons learned, provide training on new processes and procedures, and share information. Conduct Operations Review Board (ORB) lessons learned meetings/surveys to identify further process improvements.

## **Target: Conduct periodic financial status and outlook meetings**

Conduct quarterly financial status and outlook meetings (at a minimum) on Operations Review Board formulation strategy, activity status, funding recommendations, and other ORB topics as required at the weekly ATO Deputy Vice President's meetings to improve their fiscal awareness and aid in making good decisions. Conduct periodic meetings with individual service units to discuss updated processes, tools usage, and initial analysis (based on ORB submissions). Collaborate with AJG-R1 Financial Managers (FMs) and staff closely on these deliverables.

## **Activity: Conduct periodic financial status and outlook meetings**

Conduct quarterly financial status and outlook meetings (at a minimum) on pay, staffing, hiring, awards, business rules, and other pay topics.

# FY 2020 ATO Business Plan



## **Target: Conduct periodic financial status and outlook meetings**

Conduct quarterly financial status and outlook meetings (at a minimum) on pay, staffing, hiring, awards, business rules, and other pay topics as required at the weekly ATO Deputy Vice President's meetings (in collaboration with AJG-R1 and P1) to improve their fiscal awareness and aid in making good decisions.

## **Initiative: ATO Headquarters Business Services Group - Use Information to Improve System Performance**

The Business Services Group maintains budget line item allocations across Operations and Activity 5 appropriations for the Air Traffic Organization. The group prepares budget execution reports and analysis of financial activity to brief management; oversees and tracks Allowance Identification Documents (AID) forms transferring funds across the ATO; develops and analyzes budget requirements for the execution year to create spend plans that inform business decisions; gathers program requirements for future years to formulate budget requests to the Operations Review Board and preparation for program reviews; supports the purchase request process including requisition, funds certification, and approval. The group also serves as the ATO liaison with the Service Areas and Business Services Groups and is responsible for formulating and executing Hurricane/Disaster relief funds.

### **Activity: Budget Execution**

To avoid deficiencies, allowances are actively managed throughout the fiscal year.

### **Target: Expenditures for ATO**

Monitor, track and report obligations and expenditures for ATO on a monthly basis. Support the acquisition request process including requisition, funds certification, and approval of purchase card/travel and purchase requisitions for assigned service units.

### **Target: Obligate ATO's FY20 Operations and Activity 5 budgets**

Obligate ATO's FY20 Operations and Activity 5 budget according to ABP guidelines for two-year funding authority of FAA appropriations.

### **Activity: ATO Budget Allowance**

Distribute ATO budget allowance at the service unit level.

### **Target: REGIS system**

Enter budget allocation in the REGIS system, for ATO Service Units, within 5 business days of receipt of funds.

### **Target: Allowance Identification Documents (AID)**

Oversee and track Allowance Identification Documents (AID) forms transferring funds across assigned service units.

# FY 2020 ATO Business Plan



## **Activity: Integrated Customer Approach**

As a resource management shared service providers, AJG-R will seek to improve the delivery of shared services. AJG-R will work with partners to streamline, standardize and automate business processes across the ATO to reduce the burden and cost of administrative services. AJG-R will strengthen its partnership with ABP and AJG-P to fully adopt Agency data sets and tools that together enhance our ability to produce accurate budget forecasts. AJG-R will continue to partner with service units to ensure their needs and requirements are fully understood and properly prioritized.

### **Target: Partnership between AJG-R and AJG-P**

Develop resource management integration with other AJG support organizations to provide customers with holistic view of service unit assets. Provide consultative services/recommendations on funding gaps/surpluses and options to maximize use of resources based on customer needs. Produce combined automated reporting capabilities that detail monthly spending/staffing plans and report actuals on a monthly basis. Integrate efforts with ABP's Financial Integration Tool.

### **Target: Resource Status and Outlook meetings**

Integrate financial status briefings into larger Resource Management discussions with each ATO Service Unit Vice President and their leadership teams. Integrate data tools, including the Financial Integrated Tool, spend plans, reports and support activities to enhance business analytics and acumen for ATO employees. Conduct monthly resource management meetings between AJG and ATO service units beginning October, 2019.

### **Target: Customer Outreach**

Expand biweekly calls with Business Services Group and include outreach with the Resource Management Group in the Service Center. Integrate Pay Team, Administrative Services Group and other pertinent partners to discuss upcoming changes to policies, procedures, data calls, reporting and issues that will maximize efficiency across the Air Traffic Organization. Participate in annual customer outreach venues to help develop awareness around budget formulation and execution requirements.

### **Target: Service Level Agreements**

Continue to partner with AJG Organizations in refining service level agreements between our service unit and AJF, AJR, and AJV along with future realignments. Implement appropriate cyclical review of agreed upon terms to ensure services provided by AJG continue to meet the customers' needs. Identify appropriate sponsoring organization within AJG that can serve as a central program manager when coordinating various service level agreements between gaining and releasing organizations.

## **Activity: Integrated Budget Planning**

Integrate financial business rules, process guidance, and execution trends to assist in budget planning. Partner with ABP-200 and AJG-R3 to integrate efforts in non-pay execution analysis, trends, etc.

# FY 2020 ATO Business Plan



## **Target: Analyze current obligation rates**

Review and document data requirements & fields for monthly spend plans, across all service units. Draft an approach to standardize the method by which specialists enter data into REGIS. Present approach to stakeholders for review and approval.

## **Target: Automate Allowance Identification Documents (AID)**

Develop and work with AJG-R3 to execute requirements to enhance the ATO's current electronic allowance identification documents process. Integrate tool within the Operations Review Board's suite of applications. Ensure process properly accounts for internal service unit transfers as well as requests for ATO corporate account resources. Tool will allow decision makers to obtain enough background information, including ORB deliberations, current obligation/expenditure rates and other relevant data. The tool will have a proper reporting mechanism that will substantially decrease the need for manual entry.

## **Initiative: Manage ATO Space and Contractor Support Services - Use Information to Improve System Performance**

ATO Internal Business Services provides policy, guidance, tools, and training to support ATO financial and business practices and procedures. Customer Service Advocacy, Assessment, and Escalation.

### **Activity: Contract Support**

Deliver on contract support related items.

### **Target: Small Business Outreach Program vendor fairs**

Provide representation and support for the Aeronautical Center Small Business Outreach Program vendor fair.

### **Target: Transition the Administrative Support Services to the ATAPS Contract Vehicle**

Coordinate with the ATAPS COR on the transition of administrative support from the current contract vehicle, currently expires Feb 2020, to ATAPS. This contract provides administrative support for AJW, AJT, and AJG-P.

### **Target: Award follow-on Contract for the ORB**

Deliver the acquisition package and support the contracting office in finalizing the package for award. This contract provides business and financial support, staffing and payroll execution analysis and planning support, financial management system and data analytics support, software development and maintenance, engineering and data analytics support. This contract support AJG-R1. The current contract will expire April 2020.

# FY 2020 ATO Business Plan



## **Target: Award follow-on Contract for AJV**

Deliver the acquisition package and support the contracting office in finalizing that package for an award. This contract provides support for UAS integration into the NAS, policy/procedure development, Safety Risk Management compliance, and FOIA requests for AJV-115. The current contract expires June 30, 2020.

## **Target: Exercise Contract Option for AJW**

Deliver the acquisition package and support the contracting office in finalizing the package for exercising option year 3 of the Arctic Slope Federal System Solutions contract. This contract provides second level engineering and program support for AJW-14, AJW-173/178, and AJW-17X. The current contract option will expire April 2020.

## **Target: Contract Status Report**

Develop a contract status report that consolidates all of the contracts that AJG manages. This report will provide Senior Level Management the details necessary to evaluate the extent of ATO customers and volume of work, when determining funding and staffing requirements.

## **Activity: Space Management**

Deliver on Space Management activities.

## **Target: Execute the Strategic Space Plan for AJG**

Execute the Strategic Space plan for placing AJG headquarters employees in locations, which maximize AJG's effectiveness in accomplishing its mission. Provide monthly updates to the Space Council on initiatives and activities.

## **Target: OKC Space Management**

Maintain and enhance the Space Management Services by identifying, developing, and implementing Standard Operating Procedures for OKC Space Management Processes and Facility Security Programs.

## **Activity: ATO Wireless Efficiency Initiative**

Maintain and enhance ATO Wireless efficiency initiative to improve control of the inventory, and effectively analyze account data to identify areas for cost reduction.

## **Target: Support ATO end users with Wireless Devices**

Continue to support ATO end users with wireless device needs and identify cost reduction opportunities.

# FY 2020 ATO Business Plan



## **Initiative: AJG-R Organizational Development and Effectiveness – Develop a Workforce for a Modern Operation**

Organization Development is a strategy intended to change the beliefs, behavior, values, culture and structure of organizations so that they can better adapt to new technologies, workplace requirements and challenges. Business Acumen and Technical knowledge are key to empowering our workforce. Organizational Development methods are used to improve Organizational Effectiveness. Effective organizations create results, and exhibit strengths in key areas – leadership, decision making and structure, people, work processes and systems, and culture. Effective organizations deliver results.

### **Activity: Training and Growth**

To support Individual Development Plans, the directorate will provide periodic training opportunities to support employee development and learning.

#### **Target: Financial Services – Skill Assessment**

Identify suggested and required training by job category for the directorate. Include new systems and technologies that support decision making and work processes. Leverage the skills of the team to further the financial services products and analytics deliverables.

#### **Target: Skill Enhancement Plan and Execution**

Formulate individual training plans for employees and begin execution of the plans.

#### **Target: Leadership Development Assessment**

Identify a set of leadership classes on Critical Thinking, Conflict Resolution, Building Consensus and other topics that help us better support our customers, and each other.

#### **Target: Leadership Development Plan and Execution**

Formulate leadership development plans for managers, in IDP, and begin execution.

### **Activity: Organizational Structure and Culture**

The organizational identity is constantly underlined by a number of intentional actions and constant communication, across all levels.

#### **Target: Directorate Strategy and Communication**

Hold quarterly Financial Services Management Strategic Meetings. Hold at least one directorate Town Hall meeting, with agenda items gathered from employees. Facilitate Director/Deputy Director participate in at least one group manager meeting with the teams to discuss work items and address questions as a group.

#### **Target: Directorate Products and Services**

Maintain an updated directorate website and, as needed, supporting and relevant KSN information to help our team and our customers easily identify the services provided and points of contact. Promote employee/team recognition for services delivered.

# FY 2020 ATO Business Plan



## **Initiative: AJG-P Organizational Development and Effectiveness – Develop a Workforce for a Modern Operation**

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# FY 2020 ATO Business Plan



## **Initiative: ATO Policy Oversight Services**

Implementation of Policy and Organizations, Performance Management (includes Valuing Performance) and Recognition, Correspondence, Records, and Directives Management, Time & Attendance, VLTP support, Telework Coordinator.

### **Activity: ATO Performance Management and Maintenance**

ATO Performance Management and Maintenance.

#### **Target: FY19 Final Ratings**

Ensure at least 90% of final ratings are completed for ATO employees in each of the following systems: Valuing Performance (VP), Performance Management (PM), and Executive Performance Agreements (USAP) for FY19 with the final ratings and discussions signed off.

#### **Target: FY20 Performance Plans**

Ensure at least 80% of initial performance plans are completed for ATO employees in each of the following systems: Valuing Performance (VP), Performance Management (PM), and Executive Performance Agreements (USAP) for FY20.

#### **Target: FY20 Mid-cycles**

Ensure at least 80% of ATO employees have mid-cycles completed in each of the following systems: Valuing Performance (VP), Performance Management (PM), and Executive Performance Agreements (USAP) for FY20.

#### **Target: ATO Training for the PMAS and INSPIRE Programs**

Conduct training throughout the ATO for the PMAS and INSPIRE programs.

#### **Target: Training on Performance Conversations**

Develop a training plan to train at least 1,000 ATO managers on how to have difficult performance conversations, to include a component on how to ensure consistency in performance rating interpretation across the Service Unit.

### **Activity: Tracking System, Directives Process**

Establish, implement, and refine business solutions throughout the ATO.

#### **Target: Change Control Board (CCB) for APAT**

Implement a Change Control Board (CCB) for APAT. Develop a rating system for prioritizing changes. Share CCB results and progress with user community. Implement 70% of changes to APAT identified as viable.

#### **Target: Managing Data Requests**

Establish an enterprise process for managing data requests.

# FY 2020 ATO Business Plan



## **Target: AJG-P Source Data Inventory**

Create a source data inventory by identifying all AJG-P systems accepting data. Conduct an analysis and provide recommendations to AJG-P0 on potential opportunities for data sharing and reducing data duplication. Identify systems requiring a deeper dive.

## **Target: Automated Response for Directives.**

Implement automated response for Directives. Process 100% of Directives received through automated system.

## **Activity: Reorganization/Realignment Change Process across ATO**

Align ATO reorganization/realignment change process with Agency edicts.

## **Target: Revise and Implement JO 1100**

Revise and implement JO 1100 to produce specific functional descriptions to the directorate-level for 10% of organizations in ATO.

## **Target: Organizational Changes Portal Used for ATO**

Provide information and education on the use of organizational changes portal for use throughout ATO.

## **Target: Special Projects such as VERA/VSIP, ETTRA, Furlough Codes**

Develop and implement quality control initiatives and lessons learned for special project efforts such as VERA/VSIP, ETTRA, Furlough Codes.

## **Initiative: HQ Administrative Services Group**

Support ATO's operational focus by delivering new efficiencies in the preparation and routing of personnel action paperwork, in supporting managers in hire selection and in producing internal personnel reports. Support ATO and FAA efforts to increase workforce diversity.

## **Activity: Transition ATO to Service Unit use of the Financial Information Tool (FIT)**

Support ATO Service Units in utilizing the FIT to develop hiring plans with an eye to accurately forecasting the pay portion of ATO's FY2020 budget.

## **Target: Service Unit FIT Plans**

Work with each ATO Service Unit to identify the series associated with each planned hire in the FY20 FIT plan.

## **Target: ATO Service Unit Hiring Plans**

Analyze ATO Service Unit hiring plans and produce recommendations on projected hiring timelines and creative strategies for achieving plans.

# FY 2020 ATO Business Plan



## **Target: Progress on Service Unit FY20 Hiring Plans**

Monitor progress on Service Unit FY20 hiring plans. Identify strategies that are working and perform a gap analysis on any shortfalls. Meet with ATO Service Unit customers at least quarterly to discuss findings and next steps.

## **Target: Produce Job Aids**

Produce at least one job aid on how to formulate a realistic hiring plan under current conditions. Conduct at least one internal training for AJG-P specialists to be able to utilize the job aid with ATO Service Unit partners.

## **Activity: Standardize and optimize Administrative Services Group support to ATO Service Units**

Develop standardized metrics, reports, support aids and customer meeting schedules for consistent support to ATO Service Units.

## **Target: Detail Expected Timeframes**

Develop process graphics that detail expected timeframes from receipt of a complete package at each step of the personnel action process for the most common types of actions: recruitments & selections, reassignments, promotions, details and in position increases. Share with ATO Service Units.

## **Target: Centralize the Request Process**

Centralize the request intake process for efficiencies in tracking and workload balance.

## **Target: Develop Standardized Reports**

Develop standardized reports for at least three areas: personnel action status; time stamp/processing times; hires to go.

## **Target: Track Timeframes**

Track timeframes for all stages prior to APAT, through APAT and inclusive of AHR processing. Review data quarterly, develop process improvement plans and share best practices.

## **Activity: Focus on diversity and inclusion in supporting ATO personnel needs**

Intentionally interweave a diversity focus into hiring support and outreach efforts.

## **Target: Diversity Five-Year Strategy and Annual Plan**

Create a customized diversity five-year strategy and annual plan that supports activities related to each Service Unit's diversity goals and FY20 FIT hiring plans.

## **Target: Outreach Efforts**

Conduct a minimum of five (5) outreach efforts to build community partnerships and increase awareness of employment opportunities with FAA ATO.

# FY 2020 ATO Business Plan



## **Initiative: Technical Workforce Planning**

ATO Technical Workforce Planning

### **Activity: Air Traffic Controller Selection, Onboarding and Placement**

Administer selection, onboarding and placement for new ATCS students.

#### **Target: Air Traffic Controller Specialists (ATCS) Hiring**

Consistent with the Air Traffic Controller Workforce Plan, review referral lists and make selections of at least 910 Air Traffic Controller Specialists (ATCS), both experienced (Track 2) and non-experienced (Track 1) within specified timelines.

#### **Target: Placement for FY20 FAA Academy ATCS Graduates**

Facilitate placement for all FY20 FAA Academy successful ATCS graduates and all Track 2 Specialized Experience selectees.

#### **Target: Retired Military Controller Vacancy Announcement**

Facilitate a Track 3 Retired Military Controller vacancy announcement based on Air Traffic Service staffing needs.

#### **Target: Recruiting**

Recruit and select employees with no experience and 52 weeks of Air Traffic Controller Specialist (ATCS) experience into Full Performance Level (FPL)-10 and above terminal RADAR facilities.

### **Activity: Airway Transportation System Specialist Hiring and Position Management**

Support ATO Technical Operations in achieving their technical hiring target and effective position management.

#### **Target: AJW Staffing and Outreach Strategy**

Refine a staffing and outreach strategy for ATO Technical Operations (AJW) that (1) generates sufficient numbers of quality candidates; (2) focuses on increasing diversity within the Technical Operations workforce; (3) ensures consistency in approach across all three Service Areas. Present possibilities to AJW leadership and support AJW-selected courses of action.

#### **Target: Reporting Capability**

Integrate reporting capability using AVIATOR data on ATSS 2101 ERRs in AJW into the AJW Position Management Tool.

#### **Target: Position Management**

Refine and publish a position management solution that allows ATO Technical Operations to accurately account for ATSS positions and staffing needs by SSC, and work to integrate data regarding Stat Spec Codes & the AJI dashboard that shows high priority or critical training needs.

# FY 2020 ATO Business Plan



## **Activity: Airway Transportation System Specialist (ATSS) Hiring**

Support the ATO's Airway Transportation System Specialist (ATSS) mission-critical hiring goal.

### **Target: SSC Staffing**

Monitor the staffing levels for Technical Operations System Support Centers (SSCs) and identify issues to AJW when under 95%.

### **Target: New Hires Goal**

Fill +/- 5% of the FY19 Airway Transportation System Specialist (ATSS) new-hire staffing goal of 522.

## **Activity: ATCS Student Academy Housing and Experience**

Enhance Student experience while attending Academy.

### **Target: Standardized Student Feedback**

Implement standardized student feedback on lodging experience.

### **Target: Centralized Housing Option**

Identify requirements and solicit interest from vendors for Centralized Housing Options.

## **Activity: Staffing WorkBook Enhancements**

Enhance the performance and increase the reliability of Staffing Workbook.

### **Target: Redesign of the Data Layer**

Complete the redesign of the data layer of Staffing Workbook to speed access to data elements while enforcing referential integrity on the data.

### **Target: Change Control Board**

Implement the Change Control Board so the user population has direct input into what new functionality are included in specific software releases.

### **Target: Incorporate Additional Tools**

Incorporate the additional P21 tools to increase reliability by reducing the number of systems needed to produce the same output.

# FY 2020 ATO Business Plan



## **Initiative: Integrated Talent Management**

Provide integrated talent management support for the ATO that addresses critical talent issues for the services units, to include: training strategies, leadership program deliveries, career planning services, succession planning, and low/no-cost development opportunities. Providing the right skills to the right people at the right time to meet the ATO's future needs. Provide consultation to executive leadership and their supporting management teams on 11 Collective Bargaining Agreements (CBAs) for eight unions, regarding labor matters. Ensure labor relations/agency policies are applied consistently throughout the Agency. Provide technical expertise on the application of CBAs to lines of business to solve a variety of complex issues involving; Civil Rights, EEO, Security, Human Resources, Labor Relations, and Aerospace Medicine.

### **Activity: ATO Real-time, Critical and Evolving Issues**

Address ATO real-time, critical and evolving issues within Air Traffic Services, in the areas of collective bargaining agreement implementation/adherence, memorandums of understanding/agreement, national union representatives and subject matter expert's coordination, interest based problem solving, collaboration, grievances and labor relations, and the ability to deliver shared services.

#### **Target: Develop AJG-L11 National Representative Agreements Manual**

Plan, design and draft an internal Standard Operating Procedures (SOP) manual for developing and coordinating new and existing National Representative Agreements and new National Representative Positions.

#### **Target: Develop P- Drive Review and Update for Knowledge Management**

Review, reconfigure, and update database folders, associated links and consolidate data in a common format to ensure consistent data management. Establish process that allows for links to communicate with Subject Matter Expert (SME) National Representative Database and OneNote to ensure consistent, accurate, and timely information in all associated databases.

#### **Target: Develop AJG -L11 National Workgroup Scope Manual**

Plan, design, and draft an internal Standard Operating Procedures (SOP) manual for developing and coordinating new and existing National Workgroup Scoping Agreements.

#### **Target: Deliver SYFY**

Select and establish a sustainable schedule of facilitator cadre to support the delivery of Technical Labor's Module for Succeeding in Your First Year (SYFY) and Operations Manager Leadership Development Program (OMLDP) air traffic operations workshops. Develop a schedule of facilitators to support the delivery of the Technical Labor's Module for Succeeding in Your First Year (SYFY) workshops.

#### **Target: Deliver Tech Labor Training**

Facilitate the development and delivery of high-level training for other ATO service units on Labor Relations and Labor law in the areas of collective bargaining agreement implementation/ adherence, memorandums of understanding/agreement, national union representatives and subject matter expert's coordination.

# FY 2020 ATO Business Plan



## **Target: Deliver SYFY**

Select and establish a sustainable schedule of facilitator cadre to support the delivery of Technical Labor's Module for Succeeding in Your First Year (SYFY) and Operations Manager Leadership Development Program (OMLDP) Technical Operations workshops.

## **Activity: Deliver Career Development Services**

Deliver career and professional development services and solutions that meet the critical development needs of the ATO, to include: Career Planning Program (CPP) and Career Services Center (CSC). Deliveries of programs/services are subject to availability of funds.

## **Target: Deliver CSC Training Events**

Deliver a minimum of 36 training events, including webinars and workshops, through the Career Services Center (CSC).

## **Target: Career Kiosk Roadshow**

Deploy Career Kiosk Roadshow nationally, with at least 3 deliveries per Service Area (Eastern, Central, Western) and a minimum of 200 participants.

## **Target: Career and Professional Development Services**

Update and implement marketing plan.

## **Target: Increase Training Events Participation**

Increase participation in CSC trainings/events/webinars by 10% in FY20.

## **Activity: Deliver Leadership Development Solutions**

Deliver Leadership Development Solutions: Deliver leadership development programs and services that meet the critical development needs of the ATO, to include: Leaders Teaching Leaders (LTL), Operations Supervisor Workshop (OSW), OMLDP-TO, OMLDP-AT, and Succeeding in Your First Year Program (SYFY). Deliveries of programs/services are subject to availability of funds.

## **Target: Deliver Leaders Teaching Leaders (LTL)**

Deliver Leaders Teaching Leaders (LTL) facilitator training nationwide.

## **Target: Operations Supervisor Workshops (OSW)**

Facilitate a minimum of 24 Operations Supervisor Workshops (OSW).

## **Target: Blindspot Action Plans (BSAPs)**

Provide learner support and coordinate, track, and report on national implementation progress of Blindspot Action Plans (BSAPs) for the Operations Manager Leadership Development Program for Air Traffic and Tech Ops (OMLDP-TO).

# FY 2020 ATO Business Plan



## **Target: Operations Manager Leadership Development Program - Air Traffic (OMLDP-AT)**

Lead deployment of Operations Manager Leadership Development Program- Air Traffic (OMLDP-AT) workshops.

## **Target: Develop and Deliver SYFY**

Develop and deliver a minimum of 12 Succeeding in Your First Year (SYFY) workshops.

## **Activity: Deliver Succession Planning Services**

Deliver succession planning solutions that meet the critical development needs of the ATO, to include the Succession Planning Program, TOLPD and ATLDP. Deliveries of programs/services are subject to availability of funds.

## **Target: Air Traffic Leadership Development Program (ATLDP)**

Deploy two Cohorts for Air Traffic Leadership Development Program (ATLDP).

## **Target: Technical Operations Leadership Development Program (TOLDP)**

Deploy one Cohort for Technical Operations Leadership Development Program (TOLDP).

## **Activity: Deliver Learning and Evaluation Services**

Deliver Learning and Evaluation Services: Deliver services to support the deployment and continuous improvement of ATO leadership and employee development programs. Deliveries of programs/services are subject to availability of funds.

## **Target: Review Level 1 Evaluations**

Review Level 1 evaluations for all applicable deliveries at the group-level quarterly and provide report to Director.

## **Initiative: ATO Strategic Planning – Use Information to Improve System Performance**

Leads the process for strategic and business planning and integration of the ATO Business Plan with the FAA Strategic Plan. Facilitates the ATO service units' use of goals and performance measures. Coordinates Capital Investment Plan submission to Congress.

## **Activity: ATO Strategic and Business Planning**

Leads the process for strategic and business planning and integration of the ATO Business Plan with the FAA. Facilitates the ATO service units' use of goals and performance measures.

## **Target: ATO Community Metrics**

Coordinate Community Metrics briefings, and facilitate ATO Leadership discussions and decisions quarterly throughout FY20.

# FY 2020 ATO Business Plan



## **Target: ATO Performance Metrics**

Coordinate ATO Performance Metrics briefings and FY20 Strategic Priorities and facilitate monthly ATO Leadership discussions and decisions.

## **Target: Performance Committee Meetings**

Prepare ATO status and represent ATO on Agency Performance Metrics at the monthly Performance Committee meetings.

## **Target: ATO FY21 Business Plan**

Coordinate preparation of the ATO FY21 Business Plan with the ATO Service Unit Lead Planners.

## **Activity: Five Year Capital Investment Plan**

Develop and coordinate the FAA Five Year Capital Investment Plan.

## **Target: Abbreviated CIP**

Deliver the draft FY21-FY25 abbreviated Five Year Capital Investment Plan to submit to ABP-340 for submission with the FY21 President's budget.

## **Target: Five Year CIP Kickoff**

Initiate formulation of the FY22-FY26 Five Year Capital Investment Plan.

## **Target: CIP Overview**

Deliver the draft FY21-FY25 Five Year Capital Investment Plan Overview to AOA.

## **Activity: ATO Short Term Incentives**

Lead ATO coordination of Short Term Incentive (STI) for all service units, including internal items such as STI nominations and executive assignments, as well as external items such as APO line of business planners meetings, cross-agency STI coordination and approval and Corporate STI items. Monitor changes for ATO executives and brief incoming executives on STI assignments and overall process.

## **Target: FY19 STI Closeout**

Coordinate closeout of the FY19 ATO Short Term Incentives (STIs). Develop the individual executive FY20 STIs, Group STIs and Cross-Agency STIs for the ATO.

## **Target: STI Change Requests**

Coordinate Short Term Incentive (STI) related change requests with APO and other lines of businesses and keep stakeholders informed on progress.

## **Target: STI Status Updates**

Provide executive Short Term Incentive (STI) and Corporate STI (CSTI) status to ATO Vice President (VP)/Deputy Vice President (DVP) level at least twice a year. Provide all service units with STI/CSTI updates as needed throughout the fiscal year.

# FY 2020 ATO Business Plan



## **Activity: AJG and AJT Service Unit Business Plans**

FAA business plans are used for documenting efforts towards accomplishing the Agency's major goals, highlighting the Agency's Strategic Initiatives, providing line of sight for Performance Management, and communicating major initiatives and planned accomplishments of interest for the coming fiscal year.

### **Target: FY21 Business Plans**

Initiate formulation of FY21 ATO Business Plan for Air Traffic Services (AJT) and Management Services (AJG).

### **Target: Business Plan Status**

Provide senior level management in Air Traffic Services (AJT) and Management Services (AJG) with a monthly status on Business Plan progress.

## **Initiative: Empower and Innovate with the FAA's People – Develop a Workforce for a Modern Operation**

The ATO Management Services Customer Service Advocate implements the ATO Customer Service Strategy by addressing customer service goals, identify and leverage internal best practices, and assess our Management Service's customer service performance.

## **Activity: Customer Service Goals of Management Services**

Provide executive direction and leadership for achieving the customer service goals of the Management Services organization.

### **Target: Customer Valuation Interviews**

Evaluate customer experience for Air Traffic Organizations Management Services by conducting the annual Customer Valuation Interviews.

### **Target: Customer Experience Survey**

Evaluate customer experience for Air Traffic Organizations Management Services by conducting the annual Customer Experience Survey.

## **Activity: Internal Best Practices for Customer Experience**

Identify and leverage internal best practices from government and industry for customer experience.

### **Target: Identify Activities for Management Services**

Identify customer service improvement activities.

### **Target: Facilitate Activities for Management Services**

Facilitate a minimum of three targeted customer service improvement activities, i.e. seminar series.

# FY 2020 ATO Business Plan



## **Activity: Internal Communication and Branding for Management Services**

Facilitate effective internal communication within the Management Services Organization.

### **Target: ATO Minute**

Publish at least six editions of the ATO-Minute that feature AJG Programs.

### **Target: AJG Newsletter**

Publish AJG Connection newsletter quarterly.

## **Activity: AJG Town Halls**

Facilitate effective internal communication within the Management Services Organization.

### **Target: AJG Town Halls**

Facilitate the content and execution of AJG Town-Hall training events. Facilitate the logistics of AJG Town Hall training events.

### **Target: AJG Town-Halls Strategic Facilitation**

Provide strategic facilitation for the AJG Town Hall training events.

## **Initiative: ATO Organizational Effectiveness – Develop a Workforce for a Modern Operation**

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 (OE) Plan**

ATO Organizational Effectiveness Plan.

### **Target: Formulate OE Priorities for ATO Service Units**

Align Management Services (AJG) VP/DVP OE priorities for ATO Service Units.

### **Activity: ATO Organizational Effectiveness Group Leadership Transition Pilot**

Develop and implement pilot transition/onboarding program(s) for ATO senior leadership.

### **Target: Develop Strategy**

Develop a pilot transition program for ATO senior leaders upon approval (Director/DVP/VP levels).

### **Target: Implement Strategy**

Implement a pilot transition program for senior leaders (Director/DVP/VP levels).

### **Activity: Right From The Start and Collaboration Program Reviews**

Right From The Start and Collaboration Facilitators Program.

# FY 2020 ATO Business Plan



## **Target: RFTS Program Review**

Evaluate existing Right From The Start (RFTS) process and present a program review of findings to AJG-C Director and the Collaboration Oversight Group (COG).

## **Target: Collaboration Program Review**

Evaluate existing Collaboration program and its process and present a program review of findings to AJG-C Director and the Collaboration Oversight Group (COG).

## **Target: Planning and Results Discussions**

Conduct semi-annual planning and results discussions with AJT and AJW Directors of Operations.

## **Initiative: Program Control and Integration**

Program Control and Integration

### **Activity: Financial Integration Group**

Financial Integration Group

#### **Target: Financial Integration Group**

Provide FY19 Quarter 4 financial and business health assessments to AJM Leadership, AJM-1 Management Team, and PMO Program and Business Managers.

#### **Target: Financial Integration Group**

Provide FY20 Quarter 1 financial and business health assessments to AJM Leadership, AJM-1 Management Team, and PMO Program and Business Managers.

#### **Target: Financial Integration Group**

Provide FY20 Quarter 2 financial and business health assessments to AJM Leadership, AJM-1 Management Team, and PMO Program and Business Managers.

#### **Target: Financial Integration Group**

Provide FY20 Quarter 3 financial and business health assessments to AJM Leadership, AJM-1 Management Team, and PMO Program and Business Managers.

#### **Target: Financial Integration Group**

Engage with AJG to align business rules. Prepare an SOP to include a RASCI to identify roles and responsibilities.

#### **Target: Financial Integration Group**

Develop overarching plan with principal elements to sustain Human Capital Management in collaboration with AJM-0.

# FY 2020 ATO Business Plan



## **Target: Financial Integration Group**

Create draft Staffing model to evolve and sustain Human Capital Management in collaboration with AJM-0.

## **Target: Financial Integration Group**

Integrate staffing model, assumptions, and AOB data into dashboard/database.

## **Activity: Technical Integration Group**

Technical Integration Group

## **Target: Technical Integration Group**

Development of a PMO Risks, Issues, and Opportunities (RIO) Dashboard prototype that will assist in initiating strategic conversations for Executive-level decision making.

## **Target: Technical Integration Group**

Complete the implementation of the remaining action plans for the PMO Safety Management System (SMS) Gap Analysis recommendations.

## **Target: Technical Integration Group**

Develop and implement PMO Safety Risk Management (SRM) Starter Kit that would provide PMO employees with references, checklists, resources, templates, requirements, and other key SRM-related information on the SRM process.

## **Target: Technical Integration Group**

Complete PMO Information System Security Work Group (ISSWG) Charter for leadership approval.

## **Target: Technical Integration Group**

Complete Information System Security Engineer (ISSE) Roles and Responsibilities.

## **Target: Technical Integration Group**

Complete Initial Information System Security Engineer (ISSE) Framework Implementation.

## **Target: Technical Integration Group**

Complete PMO Enterprise Risk Framework for Implementation.

## **Target: Technical Integration Group**

Complete PMO Human Factors Roles and Responsibilities.

## **Target: Technical Integration Group**

Complete Review of Human Factors Policy impact on PMO.

# FY 2020 ATO Business Plan



## **Target: Technical Integration Group**

Develop PMO Human Factors Framework.

## **Target: Technical Integration Group**

Complete updates to Requirements Management (RqM) Charter, RqM SOP and Requirements Management Plan (RqMP) Templates.

## **Target: Technical Integration Group**

Complete Framework, Standard Operating Procedures (SOP) and Implementation Plan for using the Corporate Work Plan (CWP) to support Schedule Synchronization Analysis.

## **Activity: Integrated Planning & Control (IP&C)**

Integrated Planning & Control (IP&C)

### **Target: Integrated Planning & Control (IP&C)**

Complete Phase 1 of Program Acquisition Starter Kit.

## **Activity: Management Technical Support Services (MTSS)**

Management Technical Support Services (MTSS)

### **Target: Management Technical Support Services (MTSS)**

Complete documentation to develop Program Support Services (PSS) Screening Information Request (SIR).

### **Target: Management Technical Support Services (MTSS)**

Collaborate with AAQ-430 to release Screening Information Request (SIR).

### **Target: Management Technical Support Services (MTSS)**

Inventory and status all existing PMO contracts and planned acquisitions.

## **Activity: Measurements and Analysis (M&A)**

Measurements and Analysis (M&A)

### **Target: Measurements and Analysis (M&A)**

Define Health Metrics to measure PMO Program health.

### **Target: Measurements and Analysis (M&A)**

Complete prototype Health Metric Dashboard.

### **Target: Measurements and Analysis (M&A)**

Complete three (3) Program Health Reviews.

# FY 2020 ATO Business Plan



## **Initiative: NAS Mission and Support**

Provide Traffic Flow Management (TFM) Training and educational briefings to employees, customers and the aviation community in order to enhance operations and service to customers throughout the National Airspace System (NAS).

### **Activity: Integration of Security Operations**

Provide safe, efficient, and secure air traffic control and traffic management services to system stakeholders: Provides safe, efficient and secure air traffic management services; balancing safety and security with capacity and demand throughout the NAS. Collaborates with domestic and foreign system stakeholders to plan and regulate the flow of air traffic to minimize delays and congestion while maximizing overall efficiency.

### **Target: Ensure and Oversee ALTRV Requests**

In collaboration with Department of Defense (DoD) and Air Traffic Services (ATS) plan, coordinate, and obtain approval for Altitude Reservation (ALTRV) requests. Ensure ALTRV requests within the NAS are approved according to guidelines.

### **Target: Manage Approvals for Open Skies Missions**

In collaboration with Department of Defense (DoD) and Air Traffic Services (ATS) plan, coordinate, and obtain approval for Open Skies mission requests. Ensure 100% of Open Skies missions comply with our international treaty.

### **Activity: Meteorologists Present at Air Route Traffic Control Centers (ARTCCs) and the Air Traffic Control System Command Center (ATCSCC)**

Satisfy Contracting Officer's Representative (COR) responsibilities to ensure funding for, and oversight of, an Interagency Agreement (IAA) with the National Weather Service (NWS) to provide meteorological consultation, and advice regarding weather events that may have potential impacts on air traffic operations.

### **Target: Complete Center Weather Service Unit (CWSU) Evaluations**

Complete Center Weather Service Unit (CWSU) evaluations.

### **Activity: AJR NAC Recommendation**

NextGen Priorities Implementation Milestones for 80% OSI and 90% Corporate STI and Strategic Initiative.

### **Target: Operational Integration and Implementation of Surface Metering**

Perform detailed analysis and conduct Industry outreach to address operational integration and implementation of surface metering capability at selected airports.

# FY 2020 ATO Business Plan



## **Activity: NAS Directives and Procedures Management**

Ensure agency directives, Letters of Agreement (LOA) and Standard Operating Procedures (SOP) are reviewed and updated for accuracy and compliancy with FAA Orders. Determine if a Safety Risk Management (SRM) analysis is required in compliance with the Safety Management System (SMS) and the Air Traffic Operations (ATO) Safety Guidance Order JO 1030.1A. Attend directive development and SRM meetings and conferences.

### **Target: Review and Update Facility Directives**

Review and update Facility Directives, Letters of Agreements (LOA's), Standard Operating Procedures (SOP's), Safety Risk Management (SRM) updates etc., to ensure policies and procedures are documented and that changes are generated to reduce workload, comply with federal regulations, DOT orders/policies, and to maintain and improve the safety and efficiency of the NAS.

### **Target: Update Appropriate Notices/Orders**

Update appropriate Notices/Orders to ensure Systems Operations is procedurally included in the coordination of Commercial Space events so that accurate systems impacts can be assessed and system safety ensured.

## **Activity: Provide National Traffic Flow Management (TFM) Training and Educational Briefings**

Conduct National Traffic Flow Management (TFM) educational Training, briefings, and tours to educate aviation employees, leaders and stakeholders.

### **Target: Provide National Traffic Flow Management (TFM) Training and Presentations**

Provide Formal Traffic Flow Management (TFM) training, and presentations via the 50113 course. Conduct Traffic Flow Management (TFM) guided facility tours with briefings to FAA personnel and non-FAA individuals and groups who have an aviation interest and to enhance agency information exchange and operational awareness of the Air Traffic Control System Command Center.

## **Initiative: Controller Training Contract (CTC)**

Successfully manage agency-required ATC training support

### **Activity: CTC Program Management**

Successfully manage the execution of the CTC program

#### **Target: CTC Budget**

Ensure that CTC FY20 costs are maintained within allocated budget.

#### **Target: CTC Innovation**

Provide contract oversight for innovation opportunities identified by AJI stakeholders.

# FY 2020 ATO Business Plan



## **Initiative: ATO Employee Engagement**

Promote ATO Employee Engagement across Service Units.

### **Activity: ATO Employee Engagement**

Promote ATO Employee Engagement efforts across every Service Unit.

#### **Target: ATO Employee Engagement**

Lead the ATO Employee Engagement Captains by defining, promoting and executing FAA Employee Engagement strategies.

#### **Target: ATO Employee Engagement**

Deliver Employee Engagement results to Vice Presidents (VPs)/ Deputy Vice Presidents (DVPs) twice annually.

### **Activity: Management Services Employee Engagement**

Management Services Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

#### **Target: Management Services Employee Engagement**

Establish a Service Unit Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

#### **Target: Management Services Employee Engagement**

Initiate specific strategies in AJG to enrich ATO Employee Engagement.

#### **Target: Management Services Employee Engagement**

Execute the planned strategies to improve Employee Engagement to include a minimum of 1 activity per quarter and report on a monthly progress.

### **Activity: Safety and Technical Training Employee Engagement**

Safety and Technical Training Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

#### **Target: Establish Strategies for Employee Engagement**

Establish a Service Unit Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

#### **Target: Initiate Strategies for Employee Engagement**

Initiate specific strategies in AJI to enrich ATO Employee Engagement.

#### **Target: Implement Strategies for Employee Engagement**

Implement the planned strategies to improve Employee Engagement to include a minimum of 1 activity per quarter and report on monthly progress.

# FY 2020 ATO Business Plan



## **Activity: Program Management Office Employee Engagement**

Program Management Office Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

### **Target: Implement Activities for Employee Engagement**

Implement activities within PMO to improve Employee Engagement to include a minimum of 1 activity per quarter and report on a monthly progress.

## **Activity: System Operations Employee Engagement**

System Operations Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

### **Target: Establish Strategies for Employee Engagement**

Establish a Service Unit Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

### **Target: Initiate Strategies for Employee Engagement**

Initiate specific strategies in AJR to enrich ATO Employee Engagement.

### **Target: Implement Strategies for Employee Engagement**

Implement the planned strategies to improve Employee Engagement to include a minimum of 1 activity per quarter and report on a monthly progress.

## **Activity: Air Traffic Services Employee Engagement**

Air Traffic Services Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

### **Target: Air Traffic Services Employee Engagement**

Establish a Service Unit plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

### **Target: Air Traffic Services Employee Engagement**

Initiate specific strategies in AJT to enrich ATO Employee Engagement.

### **Target: Air Traffic Services Employee Engagement**

Execute the planned strategies to improve Employee Engagement to include a minimum of one activity per fiscal quarter and report on a monthly progress.

## **Activity: Mission Support Employee Engagement**

Mission Support Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

# FY 2020 ATO Business Plan



## **Target: Establish Strategies for Employee Engagement**

Establish a Service Unit Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

## **Target: Initiate Strategies for Employee Engagement**

Initiate specific strategies in AJG to enrich ATO Employee Engagement.

## **Target: Implement Strategies for Employee Engagement**

Implement the planned strategies to improve Employee Engagement to include a minimum of 1 activity per quarter and report on a monthly progress.

## **Activity: Technical Operations Employee Engagement**

Technical Operations Employee Engagement Captains collaboratively promote activities to include at least 1 activity per quarter.

## **Target: Technical Operations Employee Engagement**

Establish a Service Unit plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

## **Target: Technical Operations Employee Engagement**

Execute the planned strategies to improve Employee Engagement to include a minimum of 1 activity per fiscal quarter and report on a monthly progress.

## **Activity: Flight Program Operations Employee Engagement**

The AJF Management team will engage directly with employees through effective performance management.

## **Target: Flight Program Operations Employee Engagement**

Engage team members by conducting at least three documented performance discussions each performance period.

## **Target: Flight Program Operations Employee Engagement**

Discuss employee development opportunities at least once during each performance cycle and recommend and support Individual Development Plans for those interested.

## **Initiative: Centralized Lodging**

Establish Centralized Lodging for Academy Students.

## **Activity: Centralized Student Lodging Requirements**

Enhance the student learning environment through centralized housing.

## **Target: Requirements to Establish Centralized Lodging**

Identify the requirements to establish centralized lodging.

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## **Target: Statement of Work for Centralized Lodging**

Develop and publish a Statement of Work.

## **Target: Acquisition Documents and Market Survey for Centralized Lodging**

Develop acquisition documents and publish a market survey.

## **Initiative: Partnership**

Partnership with Air Traffic - Collegiate Training Initiative Schools

### **Activity: Air Traffic-Collegiate Training Initiative (AT-CTI) Schools**

Continue partnership with Air Traffic-Collegiate Training Initiative (AT-CTI) Schools.

#### **Target: Stakeholder Meeting with AT-CTI Schools**

Conduct an AT-CTI Stakeholder meeting to collect feedback and address concerns.  
Publish a meeting report.

#### **Target: New partnership agreement with Current AT-CTI Schools**

Develop, circulate and sign updated partnership agreements with the current schools in the AT-CTI Program.

## **Initiative: Modularize Training**

Equip mission-ready controllers and technicians through training agility.

### **Activity: Non FAA Specific Training**

Transition to Non-FAA Specific Training Sources.

#### **Target: Identification of 10 Academy Courses to Non-FAA entities**

Identify ten courses to transition from delivery at the FAA Academy to non-FAA entity.

#### **Target: Scheduled offerings of three different courses by Non-FAA entities**

Deliver scheduled offerings of three different courses by non-FAA entity.

### **Activity: Reduce Development Time**

Reduce development time for Technical Operations courses by 25%.

#### **Target: Course Development for Weather System Program (WSP), Micro En Route Automated Radar Tracking System (MEARTS) Hardware (HW), and En Route Communications Gateway (ECG).**

Complete course development for Weather System Program (WSP), Micro En Route Automated Radar Tracking System (MEARTS) Hardware (HW), and En Route Communications Gateway (ECG).

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**Target: Validate and schedule Weather System Program (WSP), Micro En Route Automated Radar Tracking System (MEARTS) Hardware (HW), and En Route Communications Gateway (ECG) Courses.**

Complete validation and schedule course offerings for Weather System Program (WSP), Micro En Route Automated Radar Tracking System (MEARTS) Hardware (HW), and En Route Communications Gateway (ECG).

## **Initiative: Modularize Training**

Equip mission-ready controllers and technicians through training agility.

### **Activity: Facility Training Administrator (FTA) Redesign**

Modularize Facility Training Administrator (FTA).

#### **Target: Facility Training Administrator (FTA)**

Complete a First Course Conduct.

### **Activity: Obstruction Evaluation Airport Airspace Analysis (OEAAA) Redesign**

Modularize OEAAA

#### **Target: Obstruction Evaluation Airport Airspace Analysis (OEAAA)**

Complete a First Course Conduct.

### **Activity: Unmanned Aircraft System (UAS) Training**

Develop, revise and deliver Unmanned Aircraft System (UAS) Training in a timely manner.

#### **Target: UAS Facility POC Course**

Finalize the UAS Facility POC Course.

#### **Target: Delivery of UAS Facility POC Course**

Deliver the UAS Facility POC course to the field.

### **Activity: Operational Risk Management Training for Operational ATC**

Develop National Operational Risk Management Training for Controllers.

#### **Target: Operational Risk Management Training for Air Traffic Controllers**

Develop ORM Training for Controllers.

#### **Target: Delivery of Operational Risk Management Training to Air Traffic Controllers**

Deliver ORM Training to Controllers.

# FY 2020 ATO Business Plan



## **Initiative: Controller Training Solutions (CTS)**

Successfully manage agency-required ATC training support

### **Activity: CTS Program Management**

Successfully manage the procurement and execution of the CTS program

#### **Target: CTS Acquisition**

Complete CTS acquisition activities and award CTS contract

#### **Target: CTS Budget**

Ensure that CTS FY20 costs are maintained within allocated budget

#### **Target: CTS Innovation**

Provide contract oversight for innovation opportunities identified by AJI stakeholders

#### **Target: CTS Requirements Tool**

Complete CTS Management System (CMS)