

FY 2020 ANG 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.

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 (ANG)

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: Enterprise and ANG Safety Management Systems

Conduct integrated safety assessment to determine NAS enterprise safety risk, and develop safety requirements for mitigating potential hazards and improving safety benefit of the NAS modernization.

Activity: Conduct Safety Risk Management for NAS Enterprise to support Risk Based Decision Making

Develop NAS Safety Model and apply Enterprise Risk Based Decision Making methodologies to conduct integrated safety analyses on provision of ATM services and operational capabilities in the current and future NAS environment. Refine and implement the analytical capabilities of Hazard Enterprise Architecture Traceability Tool to support the Safety Risk Management (SRM) efforts for NAS system acquisitions in line with Enterprise-level NAS Safety Model.

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Target: SRM Panels

Facilitate at least two SRM panels utilizing the Enterprise-level composite hazards from the HEAT tool.

Target: NAS Safety Model (NSM)

Publish the final version of NAS Safety Model (NSM)

Activity: Develop Training for NAS Enterprise Safety Handbook

Train and promote the NAS Enterprise Safety Handbook to provide guidance on Integrated Safety Risk Management and incorporate Risk Based Decision Making initiatives to SRM practitioners.

Target: NAS Enterprise Safety Handbook

Develop draft of the training documentation for NAS Enterprise Safety Handbook.

Target: NAS Enterprise Safety Handbook

Complete the development of the training documentation for NAS Enterprise Safety Handbook.

Initiative: Enterprise Cyber Support for NAS

Develop Enterprise Cyber Security Threat Model to improve cyber risk management capability for the NAS.

Activity: Lead and manage FAA Cybersecurity Risk Model (CyRM) Work Group Activities

Collaborate with LOBs to update enterprise Cybersecurity Risk Model (CyRM) planning and strategy document to support CyRM development includes prototyping CyRM automation capability.

Target: FAA CyRM Strategy and Planning Document

Update FAA CyRM Strategy and Planning document to include lessons learned, resources requirements and implementation dates.

Target: Architecture Repository Cybersecurity Assessment Tool (ARCAT)

Develop three operational uses cases for Architecture Repository Cybersecurity Assessment Tool (ARCAT) integration to support CyRM automation capability.

Activity: Lead and manage secure cybersecurity test facility development

Establish a classified laboratory facility at the WJHTC to enable inter-agency cybersecurity research collaboration. This facility will emulate FAA's operational infrastructure for cybersecurity research, test, and training.

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Target: Classified Facility Standard Operating Procedure (SOP)

Complete Classified Facility Standard Operating Procedure (SOP)

Target: Classified Facility Certification

Gain ASH certification of the Classified Facility certification by ASH.

Initiative: Surface Safety Risk Reduction

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

Activity: ANG Support of Runway Safety Technology Program Management Integration

ANG will continue developing the Runway Incursion Prevention through situational awareness to include Speech Recognition and Memory Aid research.

Target: Contract and Program Support

Deliver contract support and programmatic support to AJI as required.

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.

Initiative: NextGen

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

Activity: Performance-Based Navigation

Develop and utilize air traffic procedures relying on the accuracy of Required Navigation Performance (RNP) to reduce the track miles flown and increase the efficiency for arrivals at airports with parallel runways. This concept is called Established on Required Navigation Performance (EoR). The project will utilize modeling, simulation and analysis activities, approach procedure development, separation standard changes, and concept validation to study and enable EoR capabilities. In addition, implementation guidance will be developed for use at sites around the NAS.

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Target: Established in Required Navigation Performance (EoR) Operations

Complete Houston Site visit and concept validation data collection activities including site observations.

Target: EoR Safety Analysis Report

Complete Denver site visit and concept validation data collection activities including site observations.

Activity: Exploration of Northeast Corridor Solutions

ANG-C will support pre-implementation Northeast Corridor (NEC) NextGen Advisory Committee (NAC) priorities through concept exploration and operational assessment activities. These activities will cover traffic flow management solutions to achieve the goal of deconflicting airports and improving throughput in the NEC.

Target: MARS Safety Analysis Plan

Develop draft MARS phased safety analysis plan

Target: MARS Safety Analysis Plan

Develop final MARS safety analysis plan.

Target: Conduct operational analysis to identify enhancements to improve data driven TFM decision making

Complete examination of shortfall space associated with rate calls during ground delay programs, in support of the NAC commitment to conduct operational analysis to identify enhancements to improve data driven TFM decision making.

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.

Initiative: 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: NAS Global Information Security Standards

Collaborate with ICAO, Eurocontrol, Single European Sky ATM Research (SESAR), and other international partners to plan and develop a cyber-security proof of concept to inform ICAO of requirements and policies needed to realize a global trust framework and to integrate the Cybersecurity concept of operations into the Global Air Navigation Plan.

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Target: Demonstrate cross-domain trust Owner

Complete a demonstration of the establishment of cross-domain identity trust following the global trust framework proof of concept test plan.

Target: Draft Trust Framework Certificate Policy

Deliver a draft Certificate Policy document in coordination with the ICAO Global Trust framework study group to the ICAO WG-I communication panel in support of the identity management for the Global Resilient Aviation Information Network (GRAIN).

Initiative: Stakeholder Engagement & Outreach

Enhance domestic and international stakeholder confidence in NextGen and engage stakeholders in NextGen through collaboration and messaging.

Activity: Stakeholder Collaboration

Enable and facilitate collaboration throughout the FAA, aviation community and interagency partners by sharing resulting actions, outcomes, and information.

Target: NextGen Management Board (NMB) Annual Work Plan

Develop FY 2020 NextGen Management Board (NMB) annual work plan in accordance with the NextGen governance structure.

Target: NextGen Executive Board (NEB)/NextGen Management Board (NMB)

Execute NextGen Executive Board (NEB) and NextGen Management Board (NMB) meetings and provide meeting summary reports.

Target: 80% of NAC NextGen Priorities Joint Implementation Plan commitments

Achieve eighty (80) percent of NAC NextGen Priorities Joint Implementation Plan commitments, excluding industry-controlled milestones, within a calendar quarter of their scheduled dates and within 10% of the planned cost.

Target: 80% of NAC NextGen Priorities for the Northeast Corridor (NEC) commitments

Achieve eighty (80) percent of NAC NextGen Priorities for the Northeast Corridor (NEC) commitments, excluding industry-controlled milestones, within a calendar quarter of their scheduled dates.

Target: 90% of NAC NextGen Priorities for the Northeast Corridor (NEC) commitments

Achieve ninety (90) percent of NAC NextGen Priorities for the Northeast Corridor (NEC) commitments, excluding industry-controlled milestones, within a calendar quarter of their scheduled dates.

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Target: NAC Recommendations

Achieve ninety (90) percent of NAC NextGen Priorities Joint Implementation Plan commitments, excluding industry-controlled milestones, within a calendar quarter of their scheduled dates.

Activity: Outreach Division

Effectively communicate NextGen initiatives in support of NAS modernization.

Target: NextGen Consolidated Document

Deliver the draft NextGen Consolidated Document (replacement for NextGen Implementation Plan) to the Assistant Administrator for NextGen.

Target: Pre/Post Visit Data Collection Reports

Provide at least two pre/post visit data collection reports assessing the views of selected airport communities as requested by FAA Lines of Business (LOBs).

Activity: Industry Collaboration on the Aircraft Minimum Capability List (MCL)

Collaborate with Industry to continue socialization of the aircraft Minimum Capability List (MCL) and identify strategies and next steps to achieve adoption of the MCL across the industry to inform aircraft equipage decisions.

Target: Document capabilities, uses cases, and benefits mechanisms

Complete FAA-side MCL document that includes capabilities, use cases, and benefits mechanisms.

Target: Industry Adoption of Minimum Capability List (MCL)

Through the associated NAC tasking, work with industry to identify next steps to achieve adoption of MCL to inform aircraft equipage decisions.

Initiative: Separation Standards and Analysis

Provide separation standards and analysis for U.S sovereign airspace and international airspace where FAA has delegated authority to provide air traffic services.

Activity: Provide analytical studies and safety related monitoring services in support of separation reductions.

Conduct and participate in Separation standards and transportation system analytical studies, reviews and meetings

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Target: ICAO Separation and Airspace Safety Panel (SASP)

Description: Provide analytical studies and safety-related monitoring data in support of the acceptance of new standards for separation reductions. Acceptable Level of Risk (ALR) and maximum allowable risk are key items in the SASP work plan for the next panel.

Target: ICAO Safety Data Reporting

Provide lateral and longitudinal airspace safety analyses that document compliance with ICAO safety targets. This applies to airspace and for operators in North America and the Pacific.

Activity: Provide the Reduced Vertical Separation Minimum (RVSM) Regional Monitoring Agency (RMA) functions for two of the thirteen world-wide RMAs.

Provide ICAO required monitoring and safety analysis functions that enable continued use of Reduced Vertical Separation Minimum (RVSM). This applies to airspace and for operators under the purview of North American Approvals Registry and Monitoring Organization (NAARMO) and Pacific Approvals Registry and Monitoring Organizations (PARMO).

Target: Chair for the Regional Monitoring Agency (RMA) Coordination Group

Attend and serve as Chair for the Regional Monitoring Agency (RMA) Coordination Group (RMACG)/14, presenting details of the North American Approvals Registry and Monitoring Organization (NAARMO) and Pacific Approvals Registry and Monitoring Organization (PARMO) monitoring and safety analysis.

Target: Reduced Vertical Separation Minimum (RVSM)

Provide the Reduced Vertical Separation Minimum (RVSM) Regional Monitoring Agency (RMA) functions for two of the thirteen world-wide RMAs. Due: Monthly Updates to worldwide database.

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.

Initiative: Research & Development Management

A vibrant aviation sector relies on a safe, efficient, and cost-effective aerospace system. To that end, the FAA will invest in and manage a research and development portfolio that engages aviation stakeholders across industry, academia and federal sector partners to promote aviation technology innovation, enable new entrants, leverage non-federal research investments and prioritize FAA investments to address critical industry needs and drivers.

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Activity: Research and Development Activity

Develop comprehensive view of R&D required to support vibrant aviation sector.

Target: Develop Plan Research Portfolio

Develop plan for prioritization of FAA's research portfolio.

Target: Apply prioritization process

Apply prioritization process for developing FY2022 budget submission

Target: Draft incremental approach for implementing Fee for Service Program

Draft incremental approach for implementing Fee for Service Program

Activity: New Entrant Focused Research and Development

Conduct ongoing research and development efforts to support the safe and efficient integration of Unmanned Aircraft System (UAS) into the National Airspace System (NAS).

Target: Automation Deep Dive Analysis

Complete automation system deep dive analysis report - Flight Plan Related Information

Target: Automation Deep Dive Analysis

Complete deep dive Analysis report - Explicit Denotation for UAS

Target: Validated Scenarios and Use Case Documentation

Complete validated scenarios/use cases documentation - Operations in controlled airspace outside of UAS facility maps.

Target: Validated Scenarios and Use Case Documentation

Complete performance authorization work package.

Target: UAS Flight Tests

Complete flight test support report in support of small UAS detect and avoid requirements necessary for limited Beyond Visual Line of Sight (BVLOS) operations. Report will include separation requirements and testing research

Target: UAS Flight Tests

Complete technical report documenting the research findings of the small UAS detect and avoid requirements necessary for limited BVLOS operations including separation requirements and testing.

Activity: Provide Partnership Opportunities to Industry, Academia or government via various Agreements.

Author and manage new Agreements and participate in symposiums, reviews and meetings.

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Target: William J. Hughes Technical Center and Mike Monroney Aeronautical Center Big Data Analytics Working Group (DAWG).

Advance big data analytics knowledge sharing and innovation by hosting two (2) technical exchange events with external subject matter experts.

Target: William J. Hughes Technical Center and Mike Monroney Aeronautical Center Technical Integration Working Group.

Finalize WJHTC/MMAC research and simulation facilities Technical Integration Plan and host a simulation showcasing connectivity.

Activity: Manage the planning and coordination of the R&D Portfolio

Manage the planning and coordination of the R&D Portfolio to ensure alignment with departmental and agency R&D priorities.

Target: 2020 NARP

Prepare and submit 2020 NARP for LOB Concurrence.

Target: Annual Modal Research Plan

Submit Annual Modal Research Plan (AMRP) to OST-R.

Target: Research Engineering & Development Executive Board (REB)

Coordinate and conduct the Research Engineering & Development Executive Board (REB) 2022 Portfolio Reviews.

Target: REDAC

Draft the responses to R,E&D Advisory Committee (REDAC) FY2022 portfolio recommendations.

Target: Center of Excellence (COE) congressional report

Submit final COE congressional report for executive review and approval.

Initiative: Aviation Research

Provide scientific solutions for current and future air transportation challenges that guide the development of aviation safety improvements.

Activity: Conduct Safety Research

Conduct, develop and apply research to identify and address aircraft safety issues before they emerge.

Target: Provide support to revise transport category aircraft flammability certification regulations.

Conduct research and aircraft materials flammability testing to support the development of training and guidance material for aircraft manufacturers and others.

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Target: Conduct tests to support the certification of new fire suppression agents and/or systems.

Conduct minimum performance standards and other realistic fire tests required for the certification of new fire suppression agents/systems for aircraft cargo compartment and engine nacelle fire protection.

Target: Complete MAT_224 Aluminum 2024 impact obliquity modeling report.

Validate the predictive accuracy of MAT_224 Aluminum 2024 V2 for oblique impact angles. Compare simulations with NASA impact tests to evaluate model capability under complex impact conditions necessary to improve numerical modeling of turbine engine blade release.

Target: Conduct testing of simulated cold soaked fuel frost (CSFF) for both aluminum and compositing wing surface models.

Complete testing of simulated cold soaked fuel frost (CSFF) in Baylor University Climatic and Aviation Frost Facility (CAFF) for both aluminum and composite wing surface models.

Target: Integrate Parts 1 & 2 of the Safety Risk Assessment (SRA) methodology.

Integrate two parts of the Cyber Safety Risk Assessment (SRA) methodology for the Aircraft Systems Information Security Protection (ASISP) Program. The two parts consist of the cyber risk assessment and the cyber mitigation processes. These two parts form the entire independent FAA SRA methodology, with potential variants to be used as another means of compliance by industry for certification and for collaborative assessments between FAA and industry.

Target: Perform evaluations on autopilot technologies.

Perform evaluations on current autopilot technologies and flight path control systems and identify which autopilot technologies would be candidates for a tech transfer to improve general aviation safety.

Target: Complete test and analysis for second fuselage panel to assess emerging metallic structures technology (EMST).

Collaborate with Arconic and Embraer to assess EMST using the FASTER and Structures and Materials Labs. Test data will be obtained to demonstrate whether and how fuselage concepts utilizing EMST improve damage tolerance compared to baseline fuselage structures constructed using conventional materials and processes. The second panel, constructed with advanced aluminum-lithium, will be tested and results compared with the baseline panel.

Target: Develop new capability in DARWIN to analyze cracks in cylinders and hollow shafts.

Derive, verify, and implement engineering solutions for cracks in solid and hollow cylinders. This will significantly expand DARWIN's ability to address new classes of life-limited engine parts, such as shafts and casings.

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Target: Complete detonation and performance testing on a Piston Aviation Fuels Initiative (PAFI) candidate unleaded aviation gasoline fuel.

Complete detonation and performance testing per PAFI approved test plans to evaluate anti-detonation and power performance of a PAFI candidate unleaded avgas in a turbo-charged representative engine.

Activity: Conduct Human Factors Research

Maintain and increase the efficiency and performance of the NAS by reducing the impact of human error.

Target: Demonstrate benefits of prototype tool for flight check and air traffic control operations.

Plan, implement, and test a prototype software tool that intended to promote air traffic controller understanding of flight check operations. Conduct a demonstration and initial assessment of the tool to determine if it successfully facilitates the communication between flight check and air traffic control.

Target: Human Factors Impacts of Trajectory Based Operations on Traffic Managers

Assess potential impacts of Trajectory Based Operations (TBO) on Traffic Management Units (TMU) at Air Traffic Control (ATC) facilities. The report will identify TBO scenarios that will change the tasks of TMU controllers and may affect their workload, performance, or effectiveness.

Initiative: Enterprise Systems Engineering & Integration

Develop and maintain Systems Engineering Guidance Material and conduct key NAS Enterprise Integration studies. Provide enterprise systems engineering expertise and conduct key NAS enterprise integration studies to realize the Future of the NAS vision.

Activity: Sustain and Enhance the NAS Enterprise Architecture (EA)

Update the planning artifacts within the NAS EA. This includes the yearly update to the NAS EA Roadmaps and NAS Segment Implementation Plan.

Target: Perform the Annual NAS EA Roadmap and NSIP Update

Spearhead the NAS EA Roadmap and NAS Segment Implementation Plan (NSIP) annual update effort ending with their final publication on the NAS Systems Engineering Portal (SEP).

Target: Identify New Business & Technology (B&T) Roadmap

Identify new Business & Technology (B&T) Roadmap data elements and expand/refine existing data elements within the NAS Systems Engineering Portal (SEP) to position B&T for NSIP Integration.

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Activity: Further Develop, Enhance, and Update NAS Enterprise Architecture Model

Apply scenario-based analysis to further develop and enhance the NAS Enterprise Architecture Model (EAM) to: 1) establish traceability back to the business drivers (operational improvements, concepts or operation, business and technology improvements), 2) document the plan for addressing the business drivers, 3) strengthen linkages between the NAS EAM and the NAS EA Roadmaps and NSIP, and 4) support the assessment of program artifacts and associated acquisition decisions.

Target: Revise & Publish the NAS Enterprise Architecture Model (EAM)

Revise the draft NAS Enterprise Architecture Model (EAM) change package from FY2019 based on input from operational and program subject matter experts, including experts from ANG-E. Publish revised products to the Systems Engineering Portal (SEP).

Target: Produce a Draft NAS EAM Change Package

Produce a draft NAS Enterprise Architecture Model (EAM) change package covering model changes related to four operational improvement increments. The package will include System Event Trace Diagrams (SV-10c), updates to the System Interface Description (SV-1), updates to the System Data Flows (SV-4), and updates to the System Data Exchange Matrix (SV-6). Publish the draft to the product section of the SEP to facilitate review and use.

Activity: Continue to Update and Expand Enterprise Requirements

Develop NAS-level requirements for the Target NAS Requirements Document (TNRD) as updates to the System/Services Functionality Description (SV-4), results from performance studies, and stakeholder feedback is received.

Target: Performance Study

Complete a Performance Study to generate performance requirements to be included in the Target NAS Requirements Document (TNRD).

Target: NAS Requirements Document

Further update the TNRD to include additional functional and performance requirements not finalized in time for the baselined 2019 version in order to further support alignment with the 2013 Current NAS RD.

Activity: Progressively Improve Acquisition Management System (AMS) Policy and Guidelines

Improve the AMS policy and guidelines related to data management to align with agency goals and objectives.

Target: Coordinate with FAA stakeholders

Collaborate with FAA stakeholders to update the Service Analysis and Strategic Planning and Concept and Requirements Definition handbook for the purpose of improved data and information management at the corporate level and across the FAA.

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Target: Publish changes commensurate with stakeholder input through the ASAG

Publish the updates to the Service Analysis and Strategic Planning and Concept and Requirements Definition guidelines document to ensure new data analysis requirements for AMS artifacts are on FAST or programs to refer to and use.

Activity: Improve Access to and Quality of FAA Data Assets

Collaborate with data Stewardship Communities of Practice (SCoP) and the Office of the Chief Data Officer to baseline and catalog existing data assets within the respective domains to improve data access and expand data sharing. Identify data gaps, if any, and develop a roadmap and plan of action to address data shortfalls to improve data quality.

Target: Enterprise Metadata Capabilities

Provide Enterprise Metadata Capabilities by developing the Collibra operating model consistent with the FAA standard metadata model. Supports Increment 509102-02 Improved Lifecycle Management of Data/Information and Metadata Management.

Target: Data and Information Architecture Dashboard Concept Paper

Develop a concept and mockups for a data and information architecture dashboard that supports Collibra and provides decision making capabilities to architects and end-users using the data and information architecture metadata. Supports Increment 509102-02 Improved Lifecycle Management of Data/Information and Metadata Management (January 2020– September 2020)

Activity: Improve Access and Visibility to Systems Engineering Data

Complete dedicated rebuild of the NAS SE Portal and migrate the SysArc environment to cloud service environment.

Target: Initial Operating Capability for CATS

Achieve initial operating capability for CATS approved priorities.

Target: Rebuild of NAS SE Portal

Complete rebuild of NAS SE Portal, decommissioning previous version.

Activity: Readiness and Feasibility Assessment

Perform readiness and feasibility assessment for FY 20 in support of development of a more budget realistic architecture.

Target: Develop and publish FY 20 Readiness and Feasibility Plan

Develop and publish FY 20 Readiness and Feasibility Plan. The plan will document the process for developing the readiness and feasibility along with showing the programs to be analyzed.

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Target: Publish FY20 Readiness and Feasibility report

Publish FY20 Readiness and Feasibility report. The FY20 Readiness and Feasibility report will document the analysis done across the selected programs/investemnts to help with the development of a budget realistic architecture.

Initiative: NAS Modernization

The NAS Modernization initiative includes activities for the research, development, concept maturation, and technology transfer of air traffic capabilities to build towards our goals for the NAS, including the transition to Trajectory Based Operations (TBO) and the integration of new entrants. These activities are anticipated to deliver benefits in terms of efficiency, flexibility, and throughput, predictability for air traffic management, as well as safety and access for new entrants.

Activity: Separation Management - Closely Spaced Parallel

Site assessment and selection documentation for Closely Spaced Parallel Operations (CSPO) using high update rate (HUR) surveillance.

Target: Site Assessment and Selection for Closely Spaced Parallel Operations (CSPO)

Complete draft site assessment and selection document for CSPO using high update rate surveillance.

Target: Reduced minimum radar separation (MRS) Feasibility Study

Complete an initial feasibility study on the use of reduced MRS on final approach within 20 nautical miles of the runway threshold.

Target: CSPO Feasibility and Initial Safety Analysis for Arrivals and Departures

Complete analyses of feasibility and initial safety for integrated arrival/departure concepts.

Activity: FF-ICE Concept and System Architecture

Flight and Flow Information for a Collaborative Environment (FF-ICE) Concept and System Architecture activities will be performed to support the development of International Civil Aviation Organization (ICAO) provisions and implementation guidance.

Target: Operational Scenarios and Use Cases for FF-ICE

Deliver the Operational Scenarios and Use Cases document for FF-ICE demonstration.

Target: Flight and Flow Information Demo

Complete demonstration 2 of the Flight and Flow Information for a Collaborative Environment (FF-ICE) execution project to focus on post departure trajectory negotiations among multiple enhanced Aircraft Service Providers in an FF-ICE and a mixed mode environment.

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Activity: Aviation Weather Research Program

Demonstrate the scientific advances required for advanced weather forecast products required for NextGen.

Target: Graphical Turbulence “Nowcast” report and validation

Status Report validating that the “Graphical Turbulence “Nowcast” product is running at the National Center for Atmospheric Research (NCAR), with the output data stream available to NAS users including Part 121 air carriers and National Weather Service forecasters

Activity: Weather Technology in the Cockpit

Provide pilots with safe access to the NAS by analyzing and disseminating aeronautical and meteorological information to pilots and controllers through innovative systems.

Target: Trade Study on G-Force

Complete trade study on feasibility of determining G-Force or Eddy Dissipation Rate from the Inertial Vertical Velocity that is output from ADS-B.

Target: Benefits analysis of the Remote Oceanic Meteorological Information Operational (ROMIO) demonstration results

Complete benefits analysis of the Remote Oceanic Meteorological Information Operational (ROMIO) demonstration results.

Activity: UAS Traffic Management (UTM) Data Exchange

Develop and implement the data exchange formats, infrastructure, and governance for UAS Operations in the NAS.

Target: Unmanned Aircraft System (UAS) Traffic Management (UTM) Architecture

Test UPP Phase 2 UTM architecture against technical criteria and provide report.

Target: Conduct evaluations for Use Cases

Conduct evaluations for heterogeneous capabilities and use cases and provide report.

Target: TIM with UTM and FIXM

Complete Technical Interchange Meeting with UTM and FIXM project teams to facilitate data standardization. Provide report on results of TIM.

Target: Requirements Documentation for UTM

Evaluate and document the requirements documentation for UTM data exchange report.

Activity: NOTAM Aircraft Category Information

Develop a strategic vision for future enhancements to the NOTAM operating environment.

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Target: NOTAM Strategic Plan

Complete a strategic plan for the alignment and integration of developing NextGen initiatives and technologies into the Notices to Airman (NOTAM) environment.

Target: NOTAM ConOps

Complete a concept of operations (ConOps) documenting the "as is" and the future state of the NOTAM system and environment.

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

Provide a single source for weather information and deliver an enterprise solution for disseminating weather data using standardized data formats and web services. ANG-C will plan and conduct operational testing to verify CSS-Wx effectiveness and suitability.

Target: CSS-Wx Test Plan

Deliver draft CSS-Wx Operational Test Plan

Activity: UAM ConOps Development

Develop initial UAM ConOps document to describe overarching concept of operations for proposed operational flights conducted within and around urban environment.

Target: Scenarios and Use Cases for UAM

Develop set of scenarios and use cases that will cover operations of UAM within and around urban environment. The package will include systems engineering products derived from use case and scenarios to formulate conceptual elements for proposed operations conducted in this environment.

Target: Tabletop Exercise

Conduct a Tabletop exercise to support validation activities for initial UAM Concept of Development and provide analysis report. This Exercise is expected to bring a panel of Subject Matter Experts (SMEs), government, and industry stakeholders to walk through scenarios and operations and to vet and review operational threads and associated data exchanges, capabilities, and roles and responsibilities

Target: Develop Initial Low-Altitude Navigation Capabilities Report

Develop Initial Low-Altitude Navigation Capabilities Report
Assess existing navigation infrastructure and capabilities currently implemented to provide navigation services for low-altitude flight operations within and around urban environment, including both electronic and visual guidance to Develop Initial Low-Altitude Navigation Capabilities Assessment Report.

Target: Conduct a Technical Interchange Meeting

Conduct a Technical Interchange Meeting to review UAM Low-Altitude Navigation capabilities. Provide initial GAP analysis report.

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Activity: Trajectory Based Operations (TBO) Training

Conduct activities to develop training to guide technology and capability development to support Trajectory Based Operations (TBO). It is envisioned that NextGen will achieve full TBO in 2025. This preliminary analysis report is the first step toward necessary training. ANG-C1 will complete a Preliminary Analysis Report for TBO Training.

Target: Literature Review Report

TBO training analysis report. Report will include a literature review, gap analysis, UN factors analysis, recommendations for leveraging new technology, and strategic road map for training,

Target: Training Alternatives Paper

Recommended training solutions alternative paper, to include, individual proficiency and training recommendations for long-term TBO,

Activity: Ground Based Interval Management System (GIM-S)

As a follow-on to the initial GIM-S capability utilization project, process operational data on Ground Based Interval Management System (GIM-S) usage over a three-year period, 2017-2019, and analyze the conditions under which controllers accept GIM-S advisories. Analyze trend data about GIM-S usage as well as operator display settings to identify human factors limiting utilization, and recommend potential mitigations.

Activity: SC-228 Phase Two MOPS

Support the Aircraft Certification Service (AIR) and Unmanned Aircraft System Integration Office (AUS) in developing surveillance performance requirements for SC-228 Phase Two MOPS that are responsible for integration of UAS into the terminal environment. Additional surveillance sensors such as a ground-based radar are within the scope of the terminal environment, and require development of new surveillance sensors and associated tracking, filtering, and correlation strategies. The terminal environment also requires more stringent accuracies from existing sensors due to the operational environment in the terminal.

Target: SC-228 DAA MOPS Surveillance Models

Complete interim report documenting the development of all SC-228 DAA WG Phase 2 MOPS surveillance sensor models.

Target: SC-228 Phase Two Tracker

Complete interim report on the development of a central tracker for SC-228 DAA WG Phase 2 MOPS. The tracker will be utilized to ingest degraded sensor data from multiple sensors and provide a single track to the DAA algorithm.

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Activity: New ATM - Weather Transition

Identifies research concepts and capabilities that have appropriately matured and transitions them from RE&D to F&E funding. This PLA manages AMS Concept Maturity and Technical Development (CMTD) activities. It funds the development of Pre-CRDR AMS artifacts. It supports the transition of weather capabilities to FAA operational platforms. This program also supports the transition of aviation weather research to the National Weather Service (NWS) for operational production of weather capabilities to FAA platforms.

Target: Draft Weather Requirements Service Report to include all new or changed analysis and supporting documentation.

Deliver the draft Weather Requirements Service Report to include all new or changed analysis and supporting documentation.

Target: Emerging Weather Requirements (EWRs) Summary Report to include all new or changed EWRs analysis and supporting documentation

Deliver the draft FY20 Emerging Weather Requirements (EWRs) Summary Report to include all new or changed EWRs analysis and supporting documentation.

Activity: Reduced Weather Impact-Weather Observations Improvement (RWI-WOI)

WOI explores mitigating automated winter weather sensing shortfalls in the ground-based weather observation network via the vetting of technology solutions. WOI has initiated a work package which aims to deliver a technical approach for improving ASOS's capability to report multiple precipitation types and intensities as defined by an integrated product team including the solution implementer, the Weather Sensors Program Management Office, and key users, such as Flight Standards de/anti-icing research teams and aircraft certification stakeholders. The initial phase of this work package includes analyzing associated shortfalls, system design documents, engineering risk mitigation and mixed precipitation modeling and demonstration capabilities.

Target: Weather Observations Improvement

Initial Shortfall Analysis Document for Automated Reporting of Winter Weather Precipitation Type and Intensity.

Target: Precipitation Modeling Capability Report

Initial Mixed Precipitation Modeling Capability Report

Activity: Trajectory Based Operations Strategy

ANG-C will conduct activities to develop strategy and guide technology and capability development to support Trajectory Based Operations (TBO) and the vision for Full TBO in 2025. This will consist of an analysis of maturity and interdependencies between planned capabilities to generate recommendations for packaging or alignment of TBO investments. A

second element will focus on updates to the appendix to the NextGen Segment Implementation Plan (NSIP).

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Target: NextGen Segment Implementation Plan (NSIP) TBO Appendix

Complete updated Trajectory Based Operation appendix for the NextGen Segment Implementation Plan (NSIP).

Activity: Trajectory Based Operations (TBO) 2030

Ensure the successful development of Trajectory Based Operations (TBO) in the NAS. Work with stakeholders to ensure that all TBO activities, including acquisition activities, are well integrated throughout all phases of the project life cycle (Research, Development, Test, and Implementation).

Target: Complete update of Path to TBO Graphical View

Update the graphical view of the timing of operational changes and increment capabilities for the Path to TBO based on the 2020 NAS Segment Implementation Plan.

Target: Complete update of the Work Plan for Trajectory Based Operations

Update the internal Work Plan for Trajectory Based Operations.

Activity: Operational Perspective

Develop the As-Is and To-Be operational perspective of Future Flow Management (FFM).

Target: Concept of Operations Initial Draft

Complete Future Flow Management Concept of Operations Initial Draft.

Target: Future Flow Management Concept of Operations - Final Draft

Complete Future Flow Management Concept of Operations Final Draft.

Activity: Acquisition Management System (AMS) Documents

Develop Acquisition Management System (AMS) documents for System Wide Information Management (SWIM) Segment 3 Investment Analysis Readiness Decision (IARD).

Target: Initial Concept of Operations (ConOps) - SWIM

Complete initial Concept of Operations (ConOps) for SWIM Segment 3.

Target: Initial Shortfall Analysis Report - SWIM

Complete Initial Shortfall Analysis Report for System Wide Information Management (SWIM) Segment 3.

Activity: Time Base Flow Management (TBFM) Cloud Capability Analysis

This program will utilize the enterprise services infrastructure framework to evaluate NAS systems' TBFM capabilities for cloud compatibility.

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Target: Time Base Flow Management (TBFM) Cloud Suitability

Complete evaluation of suitable Time Base Flow Management (TBFM) functions for the Cloud Services.

Target: Cloud Architecture Assessment

Complete Assessment of current and future Cloud Architecture. Provide preliminary report.

Activity: Avionics Design and Evaluation

Assess the human factors impact of combined controls (e.g. combined impact of new control modes such as voice, touch, & gaze in a common space, and the integration of those new control modes with legacy control modes).

Target: Aircraft/Flight Deck Control Analysis

Preliminary analysis of objective and subjective data for aircraft/flight deck controls.

Activity: Identify in historical data shortfalls (improvement opportunities) for future TBO implementations.

Evaluate arrival and departure related shortfalls at top 41 airports as well as causal factors that will help identify groups of TBO tools/procedures that can reduce shortfall.

Target: Complete update of Arrival and Departure shortfall analysis for Top 41 airports using CY2019 data sources.

Arrival and Departure shortfalls assess key opportunities for TBO related NAS improvements through existing capacity or better management of necessary delay.

Target: TBO Success Factors

Identify factors inhibiting TBO success using historical data and modeling, at select airports.

Modeling will then help identify groups of TBO tools/procedures both improving delivery accuracy and delay redistribution benefits.

Initiative: NextGen Portfolio Management

Collaborate with stakeholders to continually improve NextGen planning and benefits delivery.

Activity: NextGen Portfolio Management

Collaborate with stakeholders to continually improve NextGen planning and benefits delivery. Ensure all funds are executed in accordance with Federal guidelines and FAA procedures.

Target: FY20 NAS Segment Implementation (NSIP) Validation

Complete all Systems Engineering Portal changes to 2020 NAS Segment Implementation Plan (NSIP) Information.

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Target: Project Level Agreement (PLA) Deliverable

Quarterly report status of Project Level Agreement (PLA) deliverable execution for all active PLAs. Ensure 100% tracking of all deliverables. 12/31/2019, 03/31/2020, 6/30/2020

Activity: Reduced Weather Impact (RWI) - Weather Forecast Improvements

The Weather Forecast Improvements (WFI) program addresses the need to improve weather prediction and the use of weather information in the future NAS. National Weather Service (NWS) forecast models will be integrated into models that forecast weather impacts for aviation purposes. In today's NAS, traffic managers and users must mentally interpret weather conditions and the potential impact of weather on ATC decisions. WFI will improve the accuracy of aviation weather information, to include the automated objective indication of the constraints placed on the NAS, and incorporate this data into collaborative and dynamic decision-making.

Target: Test Results and Findings of TWT integration of Auto-Optimization algorithms

Complete draft Technical Report – Integration of Auto Optimization Algorithms into Terminal Wind Translation Methodology.

Target: Integration of Auto Optimization (machine-learning) Algorithms into Terminal Wind Translation Methodology

Complete draft Test Results and Findings of TWT integration of Auto-Optimization Algorithms into Terminal Wind Translation Methodology that uses sample data to make predictions or decisions without being explicitly programmed to perform the task by a human user (e.g. Machine-Learning)

Activity: Flightdeck/Maintenance/System Integration Human Factors (A11.f Requirement)

The Core Flight Deck program provides the empirical research necessary for the FAA to develop products that ensure safe and efficient aircraft operations. These products include guidelines, handbooks, orders, advisory circulars, standards, and regulations. The program also provides empirical human performance data used by FAA and industry to support the design and evaluation of aircraft systems, operating procedures, and training and checking needs.

Target: Human Factors Job Aid

Complete RBDM Job Aid draft report.

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Activity: Wake Turbulence Enhancement Of Arrivals And Departures Collaboration

International working groups are looking at enhanced methods of providing wake turbulence mitigation utilizing currently available technology. ANG-C will lead the development of wake turbulence mitigation separation standards, procedures, processes, and enabling technology research for near, mid, and far term NextGen era operations. ANG-C will assess the performance of the wake turbulence separation processes and utilize those assessments in the design of new NextGen era operations. Team will perform analysis, modeling, concept development, and data collection activities necessary to accomplish the NextGen Wake Turbulence research agenda.

Target: Wake Separation Recommendations Report

Complete draft report on new aircraft-type wake separation recommendations for KC-46 aircraft

Target: Wake Turbulence Separations Report

Complete final report for new aircraft-type wake separation recommendations for KC-46 aircraft.

Target: Pairwise Separations in Terminal Operations

Complete draft report documenting the use of dynamic pairwise separations for use in terminal operations.

Target: Pairwise Analysis Report

Complete final report documenting the use of dynamic pairwise separation for use in terminal operations.

Target: Dynamic Wake Separation Research

Complete Initial Concept of Operations for Dynamic wake separation

Target: ORD Wake Encounter and Mitigation Analysis

Complete wake encounter analysis of arrivals at Runway 28C and departures from Runway 22L at ORD

Target: Analysis of Use of RNAV (VNAV) Approaches for 7110.308 at SFO

Complete analysis of the use of Area Navigation (RNAV) Vertical Navigation (VNAV) approaches for Runway 19L and 28s at San Francisco International Airport (SFO)

Activity: Flight Deck Human Factors Strategy

Develop a Far-Term (2025 to 2030) Flight Deck Human Factors Strategic Plan to capture the steps of human factors guidance, develop a better Decision Support Tool (DST), and produce a training program to promote high performance.

Target: Draft NSIP Segment Charlie & Delta Human Factors

Draft a NSIP Segment Charlie & Delta Human Factors impact assessment results.

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Target: Far Term Human Factors Change Barriers Final Report

Technical report documenting far-term human factors change barriers. Report to include impacts to existing flight crew tasks, procedures, pilot-controller interactions, and flight path monitoring needs.

Initiative: NAS / Global Standards

Collaborate with industry to establish Standards for Aviation Community.

Activity: ANG International Collaboration

In alignment with the NextGen International Strategy, by September 30th 2020, develop and submit a report on the feasibility of advancing NextGen's Tier 2 partners (currently Australia, Brazil, UAE, South Korea) to Tier 1. The report will include a risk based analysis and prioritization of results. If a country is deemed feasible, develop a proposed FAA work plan and a potential Executive engagement.

Target: Tier 1 Partners

In coordination with our Tier 1 partners, attend established bilateral and multilateral meetings and events. Garner agreement to promote NextGen programs and policies into global plans and standards, promoting harmonization with NextGen.

Target: Tier 2 Partners

In coordination with the FAA international LOB/SOs, identify engagement opportunities for bilateral and/or multilateral meetings and/or events with Tier 2 partners pursuing ATM modernization that could be harmonized with NextGen and participate as necessary.

Target: Tier 3 Partners

In coordination with the Office of International Affairs (API), assess opportunities to pursue bilateral and/or multilateral meetings and/or events with Tier 3 partners to promote ATM modernization and participate if possible.

Activity: Global Standards - AIXM

ANG-C will develop a strategy to improve processes and procedures that support the implementation and utilization of globally standardized Aeronautical Information Exchange Model across applicable FAA services

Target: AIXM Transition Strategy

A study will be conducted to improve the coordination on AIXM information usage based on the current and future operational needs. Results will be provided in a report.

Target: AIXM Alignment Support

Support for NextGen alignment with AIXM will be completed laying out how we might improve coordination of AIXM requirements in socialization.

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Initiative: NAS Laboratory Facilities and Services

Provide a set of world class laboratory facilities and services to support research, engineering and development, test and evaluation and maintenance of air navigation, air traffic management, and future air transportation system capabilities

Activity: WJHTC Laboratory Facilities

Sustain, maintain and improve the WJHTC NAS laboratory facilities

Target: Implement additional capabilities into the simulation infrastructure

Implement lab capabilities for Human Factors Research on Color Standard for ATC displays

Target: NAS automation systems

Enhance the R&D Air Traffic simulation software (DESIREE) to better reflect the latest operational Terminal system environment (STARS) . Enhancements include electronic controller coordination and enhanced aircraft sequencing and spacing tools.”

Target: 3D virtual reality environment scanning and visualization

Develop the capability to scan an environment into 3D virtual reality software for the purposes of providing a research platform into proposed future working conditions.

Target: Implement initial Trajectory Based Operations (TBO)

Implement initial Trajectory Based Operations (TBO) capability in the Boeing 737 flight deck simulator, including the capability for flight plan exchange through data communications.

Target: Space and Infrastructure Master Plan projects

Initiate 70% of planned Space and Infrastructure Master Plan projects scheduled for FY2020.

Target: Maintain ISO certification

Maintain ISO certification by meeting or exceeding customer requirements by maintaining a customer feedback response rating of 3.5 or higher.

Target: Implement intelligent agent-based capability

Implement intelligent agent-based capability for Terminal controllers to the TGF simulation platform.

Initiative: NAS Test and Evaluation

Test, analyze and evaluate systems/services to verify and validate that products meet specifications, satisfy requirements, and are operationally suitable and effective.

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Activity: Develop, socialize and implement Verification and Validation (V&V) Strategies and practices.

Conduct independent assessments of test work products and acquisition work products requiring Verification and Validation (V&V), based on established standards, in support of organizational and acquisition program objectives

Target: Test & Evaluation (T&E) Handbook.

Conduct ninety percent (90%) independent review of the William J. Hughes Technical Center's (WJHTC's) test work products for projects following the Test & Evaluation (T&E) Handbook.

Target: Verification & Validation (V&V) Summit

Host the Annual Verification & Validation (V&V) Summit.

Activity: Provide Test and Evaluation (T&E) services to support implementation of National Airspace System (NAS) systems/services.

Provide quality Test and Evaluation (T&E) and analysis products and services to ensure that current National Airspace Systems (NAS) and future air transportation systems are verified and validated using best practices and quality standards.

Target: Portfolio Review

Prepare Portfolio Review presentation for Program Management Organization (PMO) Executive Leadership (AJM-2, AJM-3, AJM-4).

Target: Deliver test documentation

Deliver test documentation as specified in FY20 Project Scope Agreements (PjSAs) with Program Office sponsors/customers for acquisition programs and projects requiring test services (Aeronautical Information, Agency Support, Air Traffic Management, Commercial Space, Communications, Decision Support Systems, Flight Service, Navigation, Surveillance, and Weather).

Target: Bi-Annual ISO Management Reviews

Maintain International Organization for Standardization (ISO) Certification by conducting biannual management reviews.

Activity: Innovative T&E methods in support of an Agile acquisition strategy

Collaborate with the ATO's Program Management Office (PMO) on exploring innovative methods to plan and conduct test and evaluation activities in support of an acquisition strategy which includes agile software/system development.

Target: Provide draft methodologies to ANG

Develop draft and present recommended methodologies to ANG

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Target: Methodologies to PMO

Provide recommended methodologies to PMO

Initiative: WJHTC Operations and Infrastructure

Modernization of Technical Center infrastructure to ensure facilities operate efficiently and effectively.

Activity: Design and engineer facility improvements to WJHTC

Design and engineer facility improvements to WJHTC

Target: Construction phase of Building 303 Electrical Switchgear and Chiller No. 2 and No. 3 replacement.

Complete 75% construction phase of Building 303 Electrical Switchgear and Chiller No. 2 and No. 3 replacement.

Target: Building 316 Substation Replacement Project Phase II

Complete 75% construction of building 316 Substation Replacement Project Phase II.

Target: Mold Removal and Prevention

Complete first phase of mold remediation

Initiative: Tech Transfer

Facilitate the seamless transition of technologies and capabilities between ANG, FAA, other agencies, and industry.

Activity: Tech Transfer

Create visibility around Tech Transfer work to ensure overall benefit to the NAS.

Target: Tech Transfer (T2) Record of Activities

Submit final T2 Record of Activities for executive review and approval

Target: Tech Transfer (T2) Plan for expansion

Prepare and submit plan for executive review & approval to expand the scope of T2 within the FAA including reporting

Target: Integrated Domain Safety Risk Evaluation Tool (ID-SRET)

Complete the development of the decision-making support tool, ID-SRET, to provide AOV with a comprehensive platform to analyze and evaluate the safety impact on the NAS due to the NAS system changes and air traffic control procedure changes. Conduct ID-SRET technology transfer to AOV to support AOV's safety oversight on the NAS.

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Target: Icing Product Alaska

Report validating the completion of the development Icing Product Alaska and its readiness for transition to the National Weather Service

Target: Site Assessment and Selection Document for Closely Space Parallel Operations (CSPO)

Complete the final site assessment and selection document for CSPO using high update rate surveillance.

Target: NASA ATD-2 Interim Report

Will provide interim technology transfer from Phase 2: Fused IADS at CLT

Target: NASA ATD-2 final technology transfer from Phase 3: Terminal departure IADS at DFW/DAL

Provide final technology transfer from Phase 3: Terminal Integrated Arrival/Departure/Surface (IADS) capabilities at DFW/DAL

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.

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.

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.

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Accountability

Serve the Nation with Reduced Regulatory Burden and Greater Efficiency, Effectiveness and Accountability.

Regulatory Reform

Reduce current regulatory burdens and bureaucracy to ensure a safe, efficient, accessible, and convenient transportation system for people and commerce.

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: ANG Ensure a Diverse and Inclusive Workforce

- ANG 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 Accommodations

Ensure 90% of ANG 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 ANG managers and 20% of ANG employees.

Target: Mediation

Ensure that 75% of all ANG 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: ANG-A - Support ACQ's Small Business efforts

Support ACQ's efforts to ensure 25% of the Agency's total direct procurement dollars are awarded to small 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 (ANG) T5

Ninety percent of program managers managing 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: 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.

Initiative: Operations/Cost Benefits Analysis and Reporting

Conduct post-implementation assessments and future costs benefit analyses of NextGen capabilities to inform stakeholders and future decision making. Provide context about the performance of NextGen capabilities at specific locations, illustrating how post-implementation benefits justify further investments in NextGen.

Activity: NEC Implementations to reduce delays and improve flight efficiency

Evaluate key FAA implementations to determine post operational benefits including support of JAT.

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Target: Complete NAC SC Evaluations for JAT

Complete NAC SC assigned post operational evaluations for JAT acceptance according to approved plan.

Target: Develop Evaluation Plan for new Implementations outside of JAT and complete evaluations for new Achieved Benefits to date

Complete evaluations of new achieved benefits through detailed post operational evaluations

Target: Develop update for NextGen Achieved Benefits

Develop update for NextGen Achieved Benefits to date (through 2019)

Activity: Develop analyses of future benefits and, as needed, costs associated with potential new or enhanced operational capabilities.

Complete evaluations of future potential benefits in support of NAC SC.

Target: Complete EFVS benefit evaluations for NEC

Joint Industry/FAA milestone to complete EFVS benefits studies to determine requirements for reaching Cat II/III equivalent operations in the NEC. Joint Industry/FAA milestone to complete studies to analyze the effects of mixed EFVS equipage aircraft operations in the NEC.

Target: Develop Cost Benefit analysis for MCL in support of Industry equipage

Complete MCL benefit cost analysis to support industry equipage

Initiative: Contract Administration/Management (Organizational Efficiency)

Perform Contract Oversight and Administration for ANG-A Managed Contracts.

Activity: Forecasting; Acquisition Planning; Acquisition Support

Develop, manage and implement acquisition strategy to improve contract award process.

Target: Quarterly Procurement Forecast Reports

Provide quarterly Procurement Forecast Reports to each ANG Directorate for situational awareness.

Target: Plan and Manage All Procurement Related Activities

Plan and manage all procurement related activities towards ANG-A led contract awards to support proactive contract management communication with the appropriate stakeholder at the appropriate time.

Activity: Administer Contracts within ANG-A1

Proactively administer contracts to provide improved communication and customer service.

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Target: Execute Memorandum of Understanding (MOU)

Execute Memorandum of Understanding (MOU) with all Lines of Business (LOBs) supported from the Systems Engineering and Development Support Budget Line item (BLI).

Target: Center for Advanced Aviation System Development (CAASD) Work Plan

Develop CAASD FY21 Work Plan.

Target: Track and Manage Key Administration and Management Processes

Track and manage key administration and management processes of FY20 award of new task orders, modifications, resumes, invoices, contract options and Program Management Reviews (PMRs) - report progress quarterly in the Contract Status Report to support proactive task order management. Actions from this activity provide input to the Contract Status Report.

Target: Provide ANG-A1 Contract Status Report to ANG Senior Management

Provide ANG-A1 Contract Status Report to ANG Senior Management, by each month to support monthly reporting and accountability for customers utilizing active contracts.

Activity: Grants Management Process

Initial Steps to establish the new 625 Workforce Development Grants Program.

Target: Publish 60 Day Federal Register Notices (FRN) for Paperwork Reduction Act (PRA)

Work with ASP-110 to publish the 60 Federal Register Notices for the Paperwork Reduction Act (PRA).

Target: 625 Workforce Development Grants: Common Form

Submit Request For Use Of Common Forms to OMB.

Target: 625 Workforce Development Grants: Privacy Threat Assessment

Complete a Privacy Threat Assessment for the Grant Programs.

Activity: Grant Management

Establish grant management process.

Target: Grant Management Process Proposal - Review

Submit grant management process proposal for leadership review and feedback.

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Target: Grant Management Process Proposal - Approval

Submit grant management process proposal update with leadership input for review and approval.

Target: Research and Development Grants Program

Develop the new ANG R&D Grants Management Organization Resource Plan for leadership review and approval.

Target: FAA Research and Development Grants Order

Identify and Assess existing FAA Grant related Orders. Draft a new FAA Research and Development Grants Order.

Initiative: Financial Management and Organizational Planning (Organizational Efficiency)

Implement improvements to enhance NextGen financial management. Ensure all funds are executed in accordance with Federal guidelines and FAA Procedures; Develop/Maintain ANG Strategic/Core Business Plan.

Activity: ANG Business Planning

Lead ANG leadership and planners in the coordination and development of the upcoming fiscal year's Business Plan to establish FY21 priorities and linkages to work units.

Target: ANG's Business Plan Framework

Facilitate leadership review and update of ANG's Business Plan Framework to establish upcoming Fiscal Year Objectives and Initiatives.

Target: Conduct ANG Business Plan Kickoff

Conduct ANG Business Plan Kickoff to deliver upcoming Fiscal Year Business Plan development guidance, requirements and timelines to ANG Planners.

Target: Upcoming Fiscal Year ANG Business Plan

Gain ANG Leadership approval of upcoming Fiscal Year ANG Business Plan for submission to APO via SPIRE SBM.

Activity: Budget Formulation, Execution and Planning

Lead development of annual budget submissions (OST, OMB and President's) and execute enacted budget in accordance with Agency policy and regulations.

Target: Timely Delivery of Annual Budget Submissions

Collaborate across ANG Directorates to ensure timely delivery of annual budget submissions in accordance with FAA timelines and provide a monthly assessment of F&E, OPS and R,E&D budget obligation rates (Due monthly).

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Target: Perform Fund Certification Activities

Perform fund certification activities within 3 business days of receipt of obligating documents that comply with FAA policy and regulations for 85% of randomly selected transactions, averaged over the fiscal year. (The statistical analysis is conducted once every quarter. DUE: 10/31/2019, 1/31/2020, 4/30/2020 & 7/31/2020).

Activity: Financial Reporting

Compile, assess, and allocate human and financial resources for the ANG organization to provide information on how resources are allocated across business plan activities.

Target: FY20 Resource Program Management Review (RPMR)

Conduct initial fiscal Resource Program Management Review (RPMR) for all directorates to capture personnel and fiscal resources allocated in executing FY20 Business Plan priorities.

Target: Final FY20 Resource Program Management Review (RPMR)

Conduct final fiscal Resource Program Management Review (RPMR) for all directorates to estimate personnel and fiscal resources required to execute FY21 Business Plan priorities.

Initiative: Enabling Employee Services (Invest in ANG's Workforce)

Enable an agile, productive and effective workforce. Provide resources and a work environment that anticipate and fulfill employee needs, foster a people-first and mission-always culture, and lead to enhanced performance and mission success.

Activity: ANG Workspace & Facilities Intake System

Implement and mature system developed in FY19 to improve customer experience and service delivery efficiency and reporting.

Target: New System & Equip Awareness

Create awareness among users about the new system and equip them with guidance to use the system properly.

Target: Collect Users Feedback (Workspace and Facilities Intake System)

Collect feedback from users about system; achieve minimum satisfaction level of 85%.

Target: Identify System Changes/Upgrades

Identify required system changes/upgrades based on user feedback and define plan to address them.

Activity: Position Management Reports

Create a set of standard, easy to digest reports that provides leadership with accurate and timely status of positions and facilitates resource allocation and hiring decisions.

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Target: Design of Position Management Reports

Define content, format and release schedule for at least two reports that will be created and published in FY20.

Target: Creation & Publication of Position Management Reports

Create development process for and begin publishing new position management reports in accordance with defined release schedule.

Initiative: Workforce Development & Recruiting (Invest in ANG's Workforce)

Maintain a highly skilled workforce. Recruit and develop workforce to meet future demands and challenges and fulfill technical and managerial needs.

Activity: Succession Planning

Build pipeline of individuals who are ready and able to step into and perform effectively in roles with greater managerial leadership responsibility and organizational impact.

Target: Monitor Progress of FY19 Senior Leadership Succession Candidates

Develop and launch process to monitor and report progress of FY19 senior leadership succession candidates in implementing development recommendations from ANG Talent Review Board.

Target: FY19 Senior Leadership Succession Plan

Craft plan to address most common development recommendations/needs of FY19 senior leadership succession candidates.

Target: Results of FY19 Senior Leadership Succession

Assess effectiveness of succession planning activity, recommend upgrades, and create briefing for senior leadership with results.

Activity: Technical Curriculum Implementation

Equip workforce with technical and non-technical knowledge and skills to foster innovation, create solutions, and positively influence others in service of mission accomplishment.

Target: Training Events

Each month, distribute a three-month rolling calendar of upcoming training events and associated seat allocations to each ANG Directorate for use in matching and enrolling employees with most valuable opportunities. (Due: By the 15th of the month prior to when calendar is effective).

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Target: Publish & Distribute Monthly Report

Publish/distribute a monthly report of: 1) enrollments and seats available by Directorate for each sponsored Tech Curriculum course to be delivered in the upcoming month; and 2) completions by Directorate for courses delivered in the prior month. (Due: By 20th business day of each month.)

Target: Communication & Engagement Activities

Conduct communication and engagement activities throughout the year to achieve an average seat fill rate of at least 80% across all sponsored Tech Curriculum courses delivered.

Target: Tech Talks Speaker-Series

Bring in and promote at least 8 speakers over the year from inside and outside the FAA as part of ANG's Tech Talk Tuesday speaker series.

Activity: Interview Guide Expansion

Expand behavioral Interview Guide developed in FY19 for use in more effectively evaluating candidates in two additional job series (initial guide focused on 343 and 801).

Target: Job Series Guide

Identify the two additional job series to be incorporated in the guide, identify/describe the associated competencies, and gather or create candidate questions, leveraging available experts and resources across FAA.

Target: Draft Interview Guide

Complete draft of expanded Interview Guide and distribute to sampling of potential users for feedback.

Target: Finalize & Publish Interview Guide

Finalize and publish expanded Interview Guide.

Activity: Recruitment - NextGen Pathways Program

Recruit and hire student Interns to assist in the agencies succession planning goals.

Target: Recruit Students

Subject to position availability, recruit new students into the NextGen Pathways student internship program.

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Target: Convert to Full-time Permanent Employees

Subject to position and funding availability, convert program participants to full-time permanent employees without further competition, after successful completion of the program.

Activity: Managerial Leadership Development for Non-Managers

Build capabilities of non-managers to perform more effectively and produce positive outcomes in informal or formal leadership and managerial roles.

Target: Personal Effectiveness Learning Resources Guide Plan

Create and launch plan to promote and build use of Personal Effectiveness Learning Resources Guide developed in FY19 along with relevant agency programs/resources for non-managers

Target: Assess Use/Impact of Resources Guide

Assess use/impact of Resources Guide, recommend changes to promotional plan or Guide to bolster use/impact, and prepare concise briefing or paper documenting results.

Target: Rotational Development/Exchange Program

Design, develop and pilot rotational development or exchange program to enhance selected knowledge and/or skill(s) of non-managers.

Activity: Expand the Enterprise Learning & Knowledge Management Technical Curriculum to include a Research and Development (R&D) curriculum component.

Collaborate with research and development subject matter experts across the FAA in the development of an ANG R&D curriculum.

Target: Complete development and socialization of an R&D competency model as a first step in defining the curriculum

Based on interviews with R&D stakeholders and other research, develop an R&D competency model.

Target: Develop a multi-faceted ANG R&D curriculum

Design and implement the ANG R&D technical curriculum, defining the courses and other included learning activities.

Initiative: FAA WJHTC Management and Support

Provide key Research and Development, Test and Evaluation, Laboratory Services and Facility Operations to support the mission of the FAA and ANG.

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Activity: Conduct key activities in support of the FAA and ANG's mission

Provide key research and development, test and evaluation and laboratory and facility services

Target: Complete 90% of the T&E and Separation Standards targets in ANG-E's FY-19 Business Plan

Complete 90% of the T&E and Separation Standards targets in ANG-E's FY-19 Business Plan

Target: Laboratory and Facility Operations targets

Complete 90% of Laboratory and Facility Operations targets in ANG-E's FY-19 Business Plan

Target: Research and Development targets

Complete 90% of the Research and Development targets in ANG-E's FY-19 Business Plan