REDAC / NAS Operations

Operations Concept Validation & Infrastructure Evolution (ATDP)

BLI Number: 1A01C

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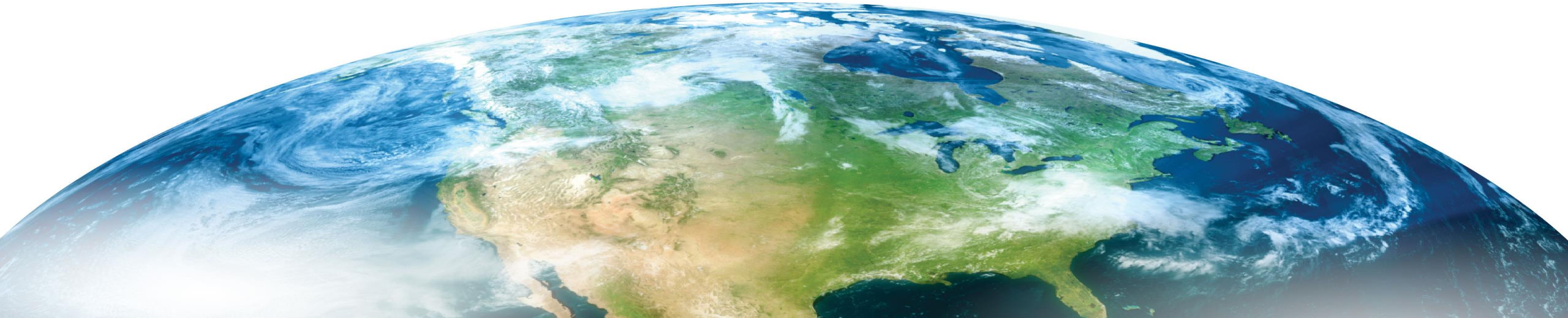
Review of FY 2021 - 2024 Proposed Portfolio



Operations Concept Validation & Infrastructure Evolution (ATDP) Overview

What are the benefits to the FAA?

As new concepts evolve, this program identifies operational gaps and potential technologies that could address these gaps. It conducts studies and analyses in operational focus areas to include Integration of Space Operations into the NAS, Evolution of Trajectory-Based Operations, and Time-Based Metering Operations with Advanced Rerouting. This program ensures that potential enhancements are operationally sound and captured in the Architecture plans for the NAS.

What determines program success?

Success is measured by the completion of the goals identified in multi-year plans developed for each activity. Initiatives that successfully complete all the project goals identified are then presented as candidates for acquisition.

Operations Concept Development & Infrastructure (ATDP)
Program Support

People:

- Program Manager: Guillermo Sotelo
- Subject Matter Experts: Traffic Managers, ATC, Discipline Experts, Airspace User Community

Research Facilities:

- WJHTC, MITRE/CAASD, NASA, Volpe, DAB Test Bed, NEXTOR

Operations Concept Validation & Infrastructure Evolution (ATDP) – Current FY21 Accomplishments

- Future Flow Management:
  - ATO Priorities, Strategy, and Action Plan – Coordination Version: Defines the ATO vision for the modernization of an all-encompassing, integrated Traffic Flow Management capabilities
- NAS Integration of Transiting Operations (integration of upper E and Space L/R operations into the NAS):
  - ATO Priorities, Strategy, and Action Plan – Coordination Version: Initial set of ATO operational priorities, objectives, and outcomes in three focus areas: Space Launch/ Reentry Operations, Vertical Transiting to/from Upper E, Upper E Operations.

Anticipated Research in FY22

Planned Research Activities:

- Technical/Operational analysis for the evolution of Traffic Flow Management (TFM)
- Technical/Operational analysis for the evolution of Oceanic Services
- New Entrants Operational Integration Analysis: Upper E Traffic Management (ETM), UAS Traffic Management (UTM), Urban Air Mobility (UAM)

Expected research Products:

- Identification of operational opportunities and challenges as emerging concepts evolve,
- Identification of opportunities to accelerate the operational introduction of innovation into the NAS

Anticipated Research in FY23

Planned Research Activities

- Integration of new entrants into the NAS: Urban Air Mobility (UAM)

Expected Research Products

- Initial ATO strategy and action plan for the integration of Urban Air Mobility (UAM) operations into the NAS
- Identification of operational opportunities and challenges as emerging concepts evolve,
- Identification of opportunities to accelerate the operational introduction of innovation into the NAS

Emerging FY24 Focal Areas

- Integration of new entrants into the NAS: Advanced Air Mobility
- Air Traffic Management Evolution

Operations Concept Validation & Infrastructure Evolution (ATDP)

Research Requirements

- As new concepts evolve, this program identifies operational gaps and potential technologies that could address these gaps by conducting studies and analyses in operational priority areas

Outputs/Outcomes

- Assessment and evaluation of operational requirements and the impact of the concept on system capacity, efficiency, safety, and human performance potentially leading to investment decision.

FY 2024 Planned Research

- Operational integration analyses as emerging concepts evolve
- Technical/operational analyses to accelerate the integration of new entrants into the NAS
- Technical/operational analyses to accelerate the operational introduction of innovation into the NAS

Out Year Funding Requirements

F&E

FY21	FY22	FY23	FY24	FY25	FY26
$ 5 M	$5 M	$3 M	$6 M	$6 M	$6 M