

FAA Office of NextGen (ANG)

REDAC / NAS Ops

Review of FY2022 – 2024 Proposed Portfolio

*Operations Concept Validation &
Infrastructure Evolution*

BLI Number: 1A01C

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Operations Concept Validation & Infrastructure Evolution 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 Validation & Infrastructure Evolution Program Support

People:

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

Laboratories:

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

Current FY22 Accomplishments

- Future Flow Management
 - Action Plan – initial validation with ATO stakeholders complete
- NAS Integration of Transiting Operations (Integration of Higher Airspace and Space L/R Operations into the NAS)
 - Action Plan – initial validation with ATO stakeholders complete
- UAM
 - Initial set of ATO operational goals, objectives, and outcomes defined
- FOTO35
 - Dynamic End-to-End Operations (DETEOps) – draft ConOps

Anticipated Research in FY23

Planned Research Activities

- 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

Emerging FY24 Focal Areas

- Operational analysis on Advanced Air Mobility concepts
- ATM/xTM – Operational interoperability analysis
- Emerging technologies operational gap analysis

Operations Concept Validation & Infrastructure Evolution

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

FY22	FY23	FY24	FY25	FY26	FY27
\$ 5M	\$ 3M	\$ 6M	\$ 6M	\$ 6M	\$ 6M