

# **FAA Office of NextGen (ANG)**

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## **REDAC / NAS Ops**

Review of FY2023 – 2025 Proposed Portfolio

*Operations Concept Validation &  
Infrastructure Evolution*

***BLI Number: 1A01C***

***Presenter Name: Guillermo Sotelo***

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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**

Proposed NAS level concepts are linked back to validated operational needs, supporting budget planning and investment decisions.

# Operations Concept Validation & Infrastructure Evolution Program Support

## **People:**

- Program Manager: Guillermo Sotelo, AJV-S11
- Subject Matter Experts: Traffic Managers, ATC, Discipline Experts, Airspace User Community

## **Laboratories:**

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

# Current FY23 Accomplishments

- NAS Integration of Transiting Operations (NITRO) – Integration of Upper Class E and Space L/R operations into the NAS:
  - NITRO ATO Strategy and Roadmap to be published by the end of March
- Urban Air Mobility (UAM):
  - Work continues in support of developing a 2028-2030 UAM operational picture
- UAS Traffic Management (UTM):
  - Work continues in support of developing the UTM ATO Strategic Roadmap

# Anticipated Research in FY24

## **Planned Research Activities**

- New Entrants Operational Integration Analysis: Space Launch/Reentry Operations (LRO), Upper E Traffic Management (ETM), UAS Traffic Management (UTM), Urban Air Mobility (UAM)

## **Expected Research Products**

- Initial set of operational requirements for Space LRO improved situational awareness
- Emerging entrants airspace access regulatory challenges
- UTM services and supporting infrastructure operational needs
- UAM airspace policies/ procedures challenges

# Emerging FY25 Focal Areas

- Air Traffic Management Evolution and Extensible Traffic Management Concept Evolution
- Advanced Air Mobility (AAM) Use Cases (e.g., Regional Air Mobility, Cargo Low Altitude Mobility, Public Service Mobility)

# 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 2025 Planned Research

- Operational needs/shortfall for routine Upper Class E airspace operations
- Operational needs/shortfall for oceanic diversified Space LRO
- Operational needs to support Part 108 rule
- Airspace/CNS operational requirements to enable 2028-2030 UAM operational picture
- Operational challenges for oversight of third party services suppliers

## Out Year Funding Requirements

F&E

FY23	FY24	FY25	FY26	FY27	FY28
\$ 3.0 M	\$3.0 M	\$6.0 M	\$6.0 M	\$6.0 M	\$6.0 M