

REDAC / NAS Ops



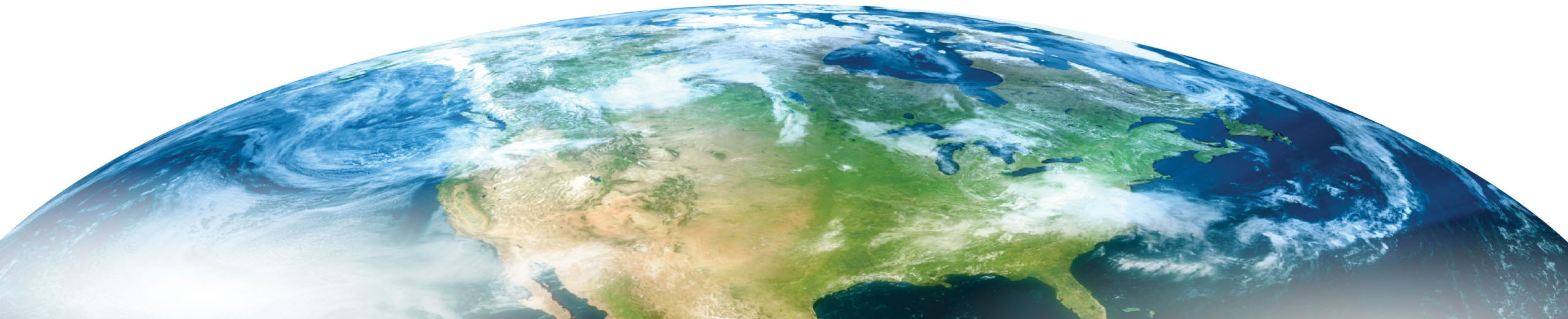
*Operations Concept Development and
Infrastructure (ATDP)*

BLI Number: 1A01C

Presenter Name: Guillermo Sotelo

Date: 09/02/2020

*Review of FY 2020 - 2023
Proposed Portfolio*



Operations Concept Development and Infrastructure (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 and 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 Development and Infrastructure (ATDP) – Accomplishments in FY20

- **Technical Analysis for Preconditioning of Flows for Arrival Metering – Complete**
 - Outcome: benefits of applying the strategic preconditioning concept for arrivals in PHL was limited given the proposed TBFM extended metering design.
- **Technical Description of iTBO Gate-to-Gate Operations – Complete**
 - Outcome: Integrated and comprehensive description of the envisioned operation of ATM with iTBO capabilities/supporting processes; identification of operational gaps
- **Future Flow Management:**
 - Defined the operational goals, objectives, and outcomes that will drive the near-term (3-7 years) evolution of TFM towards TBO



Anticipated Research in FY21

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 FY22

Planned Research Activities:

- Operational integration analyses as emerging concepts evolve
- Technical/operational analyses to accelerate the integration of new entrants into the NAS
- Enhanced synchronization of strategic and tactical capabilities to optimize Time-Based Management, to include flight deck-based capabilities

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 FY23 Focal Areas

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



Operations Concept Development and Infrastructure (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 2023 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

FY20	FY21	FY22	FY23	FY24	FY25
\$ 5 M	\$5 M	\$5 M	\$6 M	\$6 M	\$6 M