Next Generation Air Transportation System
Joint Planning and Development Office

# REDAC NASOps Fall 2013 Review

## Joint Planning and Development Office (JPDO)

## Part of

## BLI A12a

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# Presentation Outline

- TCRG/BLI Overview
  - Anticipated Research for FY 14-15
  - Emerging FY16 focal areas

- Requirements Review
  - Quad Chart FY13 requirements

# JPDO/BLI A12a Overview

- What are the benefits to the FAA?
  - JPDO maintains a future focus and is able to provide the broader perspectives and insights that are necessary for Department decision-makers to review and assess NextGen investment and policy decision
  - JPDO establishes research priorities needed for NextGen 2025 and beyond
- What determines program success?
  - JPDO provides efficient coordination and collaboration among NextGen partner agencies
  - The Nation can expect costs savings due to leveraging partner agency efforts plus reduced duplication of systems and the development of systems that will work together for all missions (civil, defense and homeland security)

# Program Success Examples

- The National Security Staff is using the Unmanned Aircraft Systems (UAS) Comprehensive Plan to guide domestic policy and multiple partner agencies have cited the Plan as the foundation for any updates to their UAS Concepts of Operations.
- A NASA Advisory Council finding commended the JPDO's UAS work, pointing to the importance of the modeling and analysis in helping to understand, estimate, and prepare for the scale of growing UAS operations.
- After transition to the FAA's System Wide Information Management program, the JPDO's Net-Enabled Test Environment provides partners and stakeholders with a robust R&D environment, and associated processes, designed to enhance development of key NextGen information sharing and security capabilities.
- FAA's NextGen design documentation leveraged recommendations from the "Flight Operations Centers: Transforming NextGen Air Traffic Management Report" and is acknowledging the existence and role of these facilities.
- The FAA's Safety organization referenced the Trajectory Based Operations Capability Safety Assessment as one source used to create a set of hazard data within the Integrated Safety Assessment Model.

# JPDO/A12a Overview Capabilities

- People
  - JPDO is comprised of employees from both FAA and the other Federal partners
  - JPDO funds only FAA positions
  - JPDO workforce actively facilitates and engages researchers, program managers and executives from among the partner agencies to formulate the interagency view
- Partnerships
  - Government: DOD, DOC, DHS, NASA, ODNI
  - Industry: NextGen Institute
  - Academia

# Anticipated Research in FY14/15

- Planned Research Activities
  - Execute UAS Comprehensive Plan Goals and Objectives
  - Develop interagency data sharing infrastructure with allows dynamic information exchange among NextGen partners
  - Identify challenge areas and interagency capabilities to define concepts and research options for inclusion in NextGen planning
- Expected Research Products
  - Identification of research gaps aligned with the UAS Goals and Objectives
  - Requirements and concepts for increased levels of automation to improve safety and efficiency
  - NextGen data sharing environment (NISE) using aeronautical, weather and flight object standard protocols for NextGen partners' use

# Emerging FY16 Focal Areas

- Identify the upcoming research challenges to support longer term NextGen vision.
- Define a framework and construct prototypes to examine the need for increased automation for safe and efficient UAS operations.
- Establish standards and policies needed for a secured Network sharing environment among NextGen partners.

# FY13 Requirements

## Research Requirements

- Legislation (Pub. L. 112-095) mandates the JPDO to oversee NextGen research, coordinate aviation and aeronautics programs and maintain a multiagency NextGen vision.
- Develop and execute the Comprehensive Plan for safe integration of UAS into the NAS.
- Provide strategic coordination among all agencies involved in NextGen and UAS .

## Outputs / Outcomes

- Formulated UAS Comprehensive Plan for Congress with six National Goals and eight associated Objectives.
- Plan is in the final executive review, with completed adjudications for over 50 comments from Departments and Agencies.
- Initiated execution of the UAS Comprehensive Plan.

## FY 2013 Accomplishment / Issues

- Partner agencies approved UAS Comprehensive Plan.
- Performed initial assessment of research gaps for integration of UAS into the NextGen environment.
- Analyzed business cases for various UAS applications such as Agriculture and Disaster Response.
- Successfully demonstrated bi-agency Capability Evaluation providing a common weather picture to all aviation system users.
- Funding resulted in deferral of several activities such as Federal requirements for surveillance data and sensors.

## Out-Year Funding Requirements

| FY 13 | FY 14 | FY 15 | FY 16 | FY 17 |
|---|---|---|---|---|
| $ 8,000 | $ 12,057 | $ 12,222 | $ 12,487 | $ 12,684 |