FPAW
Weather Integration
Into
NextGen

Date: October 12, 2011
Presented By: Shirley Burgess
Chief System Engineer
En Route and Oceanic Services
The Honorable Ray LaHood
Secretary
Department of Transportation
1200 New Jersey Avenue, S.W.
Washington, D.C. 20590

Dear Secretary LaHood:

We are in receipt of your letters dated June 30, 2011, and August 19, 2011, which included proposals for a reorganization of the Federal Aviation Administration’s NextGen program, the creation of a Shared Services Organization and Assistant Administrator for Finance and Management, the creation of a Program Management Office within the Air Traffic Organization (ATO), and a $608 million reprogramming to match the new organizational structure. Your request of August 19, 2011, proposed moving three full time equivalent positions from the Office of Aviation Safety into the Finance Shared Services organization.

The Committees hereby approve the request to have the NextGen office report to the FAA’s Deputy Administrator, creating an Assistant Administrator for NextGen, and moving the associated personnel and resources along with the office. However, the Committee denies the request relating to moving the Joint Planning and Development Office (JPDO) to the Deputy Administrator’s office. While the Committees support the mission and goals of the JPDO, the Committees do not support the proposed approach and will address this office through the annual Appropriations process.

The Committees hereby approve the request to create a Program Management Program Office within the Air Traffic Organization as requested.

The Committees hereby approve the request to create an Assistant Administrator for Finance and Management, including creating a Shared Services Organization under this position that would combine Financial Services, Information Services, Acquisition and Business Services, and Regions and Center Operations. The Committees also concur with the request to move 3 full time equivalent positions from the Office of Aviation Safety into the new Shared Services Organization.

Sincerely,

Patty Murray, Chairman
U.S. Senate
Committee on Appropriations
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies

Susan Collins, Ranking Member
U.S. Senate
Committee on Appropriations
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies

Thomas E. Davis, Chairman
U.S. Senate Committee on Appropriations
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies

John M. Olver, Ranking Member
U.S. House of Representatives
Committee on Appropriations
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies

Joint Letter of Approval
Program Management Organization September 19, 2011
The PMO: Shared Responsibilities

- Define and develop integrated capabilities
- Delivery of operationally usable capabilities
The Organization Design Concept

Program Management Organization Organization (AJM)

- NextGen Liaison
- Systems Integration
- Systems Engineering
- Interface with Operations customers in articulating needs
- Ensures that delivered programs meet customer needs
- Second level engineering (automation, terminal, en route, sys ops)
- Establish peer reviews, best practices, scorecards
- Conducts QA, PIR, performance analysis, IV&V
- Standardize the program reporting mechanism both within PMO and to external orgs (e.g., NextGen)
- Develop actionable tracking metrics and goals for PMs

Supporting Better Program Execution and Integration of NextGen Capabilities

- Automation
  - ERAM
  - TAMR
- Surveillance
  - ADS-B
- Weather
  - NNEW
- Navigation
  - RNAV/RNP
- Communications
  - DataComm
  - NVS
  - SWIM
Weather Integration into Operations

**Future Operations**

Tools for Operations

Tools for Engineering

Tools for Weather

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Collaborating on the Transition to NextGen

ATC Operations

Planners

R&D/HSI

Programs

Engineers

Aviation Weather Information Providers

Users

Stakeholders

*A Wiki is a web site where content is developed and refined collaboratively by a community of users


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Operations Activity

**Objective:** Improved forecasting for weather parameters such as visibility, icing, turbulence, and winds will be provided. Enablers include real-time weather data, advanced forecast tools, and improved communication between controllers and pilots.

**Display(s):** Map display capability/availability

**Interfaces:** Map display indicators

**Interdependencies:** Improved communication between controllers and pilots

**Enablers:** Real-time weather data, advanced forecast tools, improved communication between controllers and pilots

**Training:** Extended use of weather information in training scenarios

**Tool(s):** Weather & Radar Information System (WIS) prototype

**Communications:** Weather information will be transmitted via data link procedures

**Human Systems Integration:** Aircraft / Aircrew

**Aircraft / Aircrew**

**Tool(s):** Weather & Radar Information System (WIS) prototype

**Display(s):** Map display capability/availability

**Facilities:** Improved communication between controllers and pilots

**Enablers:** Real-time weather data, advanced forecast tools, improved communication between controllers and pilots

**Training:** Extended use of weather information in training scenarios

**Tool(s):** Weather & Radar Information System (WIS) prototype
R&D in the Transition to NextGen

Transition Tables

- Current Operations
- Plans and Investments
- R&D (Planned, In Progress, and Completed)

Know What to Expect
Identify Gaps
Align R&D with Service Needs

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DST Development

Current Tools

Weather Data
Forecasting
Weather Alerting

Weather R&D

Service Needs

Refined set of Weather Needs

Operations Filter

- Achievability
- Deployability
- Reliability
- Applicability

- En Route Weather Information
- Traffic Demand
- Constrained Airspace
- ATM Impacts

Implementation of Future DSTs

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Thank You!

Shirley Burgess
FAA, Chief System Engineer
EnRoute and Oceanic Services