Delivering NextGen

Next Generation Air Transportation System

NextGen Network Enabled Weather (NNEW)

FPAW Summer Meeting

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Background

• Weather is responsible for 70% of delays over 15 minutes and contributes to 24% of accidents
  – Up to 2/3 of weather delays are potentially avoidable, based on NAS Operations Subcommittee REDAC study

• Traffic managers and users must mentally interpret weather conditions, future traffic, and airspace information and their potential impact on decisions

• Inconsistencies exist in the presentation of weather data among the various weather systems
Background (Cont.)

• A single source of weather information often feeds several different systems the same information through different communication feeds. This point-to-point approach requires high telecommunication costs.
  • The present network would not be able to accommodate the increase in bandwidth requirements without new construction.

• Weather information is presently provided in many different and specialized formats which limits its reuse by multiple systems.

• Automation tools will require more dynamically filtered weather information to support Trajectory Based Operations and airborne weather information.
NNEW – Aviation Weather Dissemination System

• NNEW is the FAA’s platform for disseminating aviation weather and weather translation information.
  – Information provided from NWS’s NextGen 4-D Wx Data Cube & internal FAA sources (e.g., NWP, RASP)

• NNEW provides common standards for weather data discovery and data query
  – Software that provides capabilities for locating, retrieving, and filtering of weather information
  – Service adaptors to support legacy systems
NNEW – Aviation Weather Dissemination System (Cont.)

• **Key Benefits:**
  - Provide network-enabled weather information services
  - Provide the capability to automatically locate and retrieve data using global and open standards
  - Provide the capability to retrieve weather information in various ways, e.g., along flight-trajectory-specific airspace volumes
NNEW Program Overview

• **NNEW Key Elements:**
  – Open Standards Utilization/Development
    • Open Geospatial Consortium (OGC) standards
      – WFS - Web Feature Service. Serves weather data at points.
  – Data Format Standards
    – GML, XML, and NetCDF-4
    – Working with EUROCONTROL to develop a common data model
      • Metadata Standards
  – Reg/Rep - Registry/Repository
    • Enables data discovery
    • Shows how to query weather data
Current Acquisition Activities

• Upcoming Key Milestones
  – Initial Investment Decision (IID) - March 2012
  – Final Investment Decision (FID) - December 2012
• Market Survey - May 2011 - Completed
• Request For Information (RFI) - July 2011
  – Obtain technical and scheduling Information
• Screening Information Request (SIR) - June 2012
  – Request For Offer (RFO)
• Contract Award – January 2013
• NNEW IOC – September 2015