

NextGen Weather Demonstration Team: “Weather Demonstration Coordination”

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Presentation Outline

- Goals and responsibilities of the Demo Team
- Team composition
- Building a comprehensive demonstration inventory
- Outreach strategy
- Developing demo section of NextGen Weather Plan

Goals and Responsibilities

Demo team organized by the
JPDO Weather WG to:

- Identify, categorize, and document the existing NextGen weather demonstrations
- Identify, categorize, and document NextGen demonstrations that may require or benefit from weather assimilation
- Become the recognized coordination body that provides guidance and assistance on future demonstrations
- Provide guidance and assistance on Initial Operating Capability (IOC) demonstrations to ensure they are meeting IOC requirements

Goals and Responsibilities

- Facilitate communication between agencies and organizations to support the inclusion of weather, at the appropriate time, into future demonstrations
- Facilitate communication between agencies and organizations to urge compatibility between subsequent demonstrations
- Update the NextGen Weather Plan with a detailed demonstration strategy

The demo team will not:

- allocate resources
- evaluate demonstrations
- suggest industry partners

Team Structure

- Team size is approximately 20 members
 - Mix of industry and agency participants including NOAA, FAA, NASA, DOD, Harris, MITRE, NGC, and others...
- FAA and NWS co-lead team. Industry lead yet to be named
- Identify lead contacts from other agencies within the JPDO structure to minimize effort and maximize response

Demo Inventory

- The top short term priority of our team is to build a comprehensive library and database which detail:
 - demonstrations of new or improved weather capabilities
 - other demonstrations where assimilation of weather information is required for improved operational decision making
 - Examples could include: forecast process techniques, net-centric data exchange capabilities, or trajectory based operation solution sets

Demo Inventory

- At a minimum, the demo inventory will detail the following information:

- Demo Title
- Objective
- Description
- Start and End Dates
- Funded source(s)
- Performing Organization
- Location
- Wx Phenomena
- Is the Output Format Net-Enabled?
- POC E-mail and Phone #

Demo Title	Objective	Description	Start Date	End Date	Funded by	Performing Organization
Delta Airlines EDR Demo	Proof of Concept Demo to verify and document improvements from use of Eddy Dissipation Rate turbulence detection algorithm to aid the reduction of turbulence-related fuel penalties	Delta Airlines (DAL) installed NCAR-developed Eddy Dissipation Rate (EDR) turbulence detection algorithm on its entire 737 fleet. Data collection will span one year in length beginning in Spring 2009. DAL will generate a report at the end of the year documenting cost savings and other benefits	2009	1 year	DAL/FAA	DAL
Optimized Profile Descents (OPD) Demo	Assess benefits of the use of optimized profile descents	Uses Area Navigation (RNAV) / Required Navigation Performance (RNP) arrivals with optimized vertical profile. Expect benefits to include 200 to 400 LBS of fuel savings per arrival and reduced noise and emissions			FAA?	
Ground Based Augmentation System (GBAS) Demo	Increase throughput to maximize airport efficiency, reduce fuel consumption and lower noise and emissions	Demonstrate the use of Performance Based Navigation technology to improve arrival rates at airports	late 2009/2010		FAA?	

Outreach

- We need your help to spread our message!
- Outreach letter to be distributed through the JPDO to help build our inventory

**Our Goal:
Become the one-stop shop for weather demo information**

Adding a Demo Section to the NextGen Weather Plan

- Demo Team asked to develop “Section 5” of the NextGen Weather Plan
 - Tie elements of the 4-D Weather Data Cube and Weather Integration sections in the Plan to support identified operational demonstrations
- Title will be “Weather Demonstration Coordination” to ensure understanding of our mission
- The current plan is available at <http://www.jpdo.gov/newsArticle.asp?id=113>



Proposed Schedule of Activities

- Distribute outreach letter Jul 09
- Collect demo info from agencies/industries Jul 09
- Outline Wx Demo Coordination section Aug 09
- Draft Wx Demo Coordination section Sep 09
- Agency review period TBD
- Update Plan based on Agency comments TBD
- EC (NEWP?) Approval TBD
- Integrate Wx Demo Coordination into NextGen Weather Plan TBD
- Explore interfaces with relevant teams TBD

Challenges

- Manageability of data – How do we keep this library representative and up to date
- Categorizing types of Demos – Team has had several discussions about best way to categorize/organize demos (IT, Meteorological, chronological, etc...)
- Receiving needed input – Taking the time to send us the information
- Team participation – dedicated input from team members to do the real work

Summary

- JPDO Weather WG sponsored Demo Team building a comprehensive database/library of NextGen weather demonstrations
- Demo Team will also highlight other demos where weather might be integrated
- Become a “one-stop shop” of weather demo information
- Team will add a “Weather Demonstration Coordination” section to the NextGen Weather Plan

Contacts

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BACKUPS

Multiple Path Approach

