Progress in Convective Weather Information

Information Provider Panel – FAA System Operations

Presented to: Friends and Partners of Aviation Weather

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Overview

• **Provider and User of weather related information**

• **Review**
  – 2007 delay information
  – Route Availability Planning Tool (RAPT) benefits
  – Weather Evaluation Team (WET) recommendations
  – Convective comparison exercise

• **Plans**
  – Corridor Integrated Weather System (CIWS)
  – RAPT
  – S2K Interest
  – Dedicated Northeast forecast
Review

• **Total system delays per month 2002-2007**
  – 58 - 78% due to weather
Review

• **Route Availability Planning Tool (RAPT)**
  – Integrates CIWS convective weather forecasts and aircraft departure trajectories
  – Real-time benefits observations in 2007
    • Early feedback indicates being used to validate decisions made from other sources
    • Users gaining acceptance
Review

- **Weather Evaluation Team (WET)**
  - Collaborative Decision Making (CDM) activity
  - Requirements for a TRACON weather forecast
    - To include graphical 0-6 hour probabilistic forecasts of area tailored to needs of users
    - Automated with human involvement updated at least every 2 hours
    - Collaboration, consistency, and availability in production process
    - Verification, user feedback, training, concept of use
Review

• Convective comparison exercise
  – Driven by need for longer term forecasts (> 6 hours)
  – Compared:
    • Collaborative Convective Forecast Product (CCFP)
    • Rapid Update Cycle (RUC) Convective Probabilistic Field (RCPF)
    • RUC Simulated Radar Reflectivity
    • North American Meso (NAM) Simulated Radar Reflectivity
  – Preliminary results
    • Similarities with CCFP and RCPF
    • Radar reflectivity products often match structure but consistently under-forecast intensity
Plans

- **Corridor Integrated Weather System (CIWS)**
  - National expansion (2008)
  - Implement at FAA Technical Center (2008-2009)
  - Implement into Traffic Flow Management (TFM) Modernization (2009-2010)
Plans

• RAPT (2008)
  – Complete benefits study
  – Enhancements to New York capability
  – Determine other locations
  – Develop traditional 4-corner capability
Plans

• **S2K joint FAA - industry group**
  – Focus on improvements for Northeast in 2008
  – FAA and NWS working on improvement plan
  – November deliverable

• **Potential dedicated New York area forecast**
  – Based upon WET recommendations