

# Progress in Convective Weather Information

## Information Provider Panel – FAA System Operations

Presented to: Friends and Partners of Aviation Weather

By: Jim Ries and Danny Sims, FAA

Date: September 27, 2007



Federal Aviation  
Administration



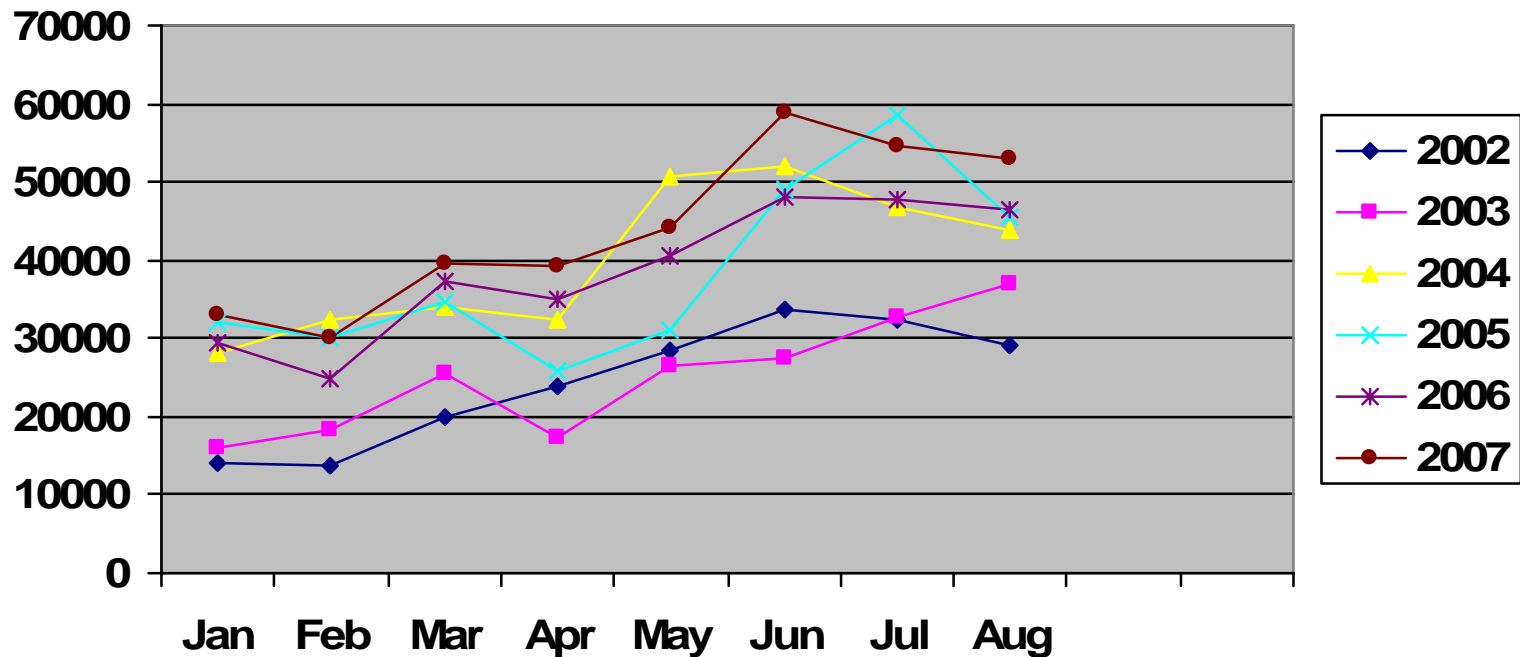
# Overview

- **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

