Weather System Engineering Issues

Presented to: Friends & Partners in Aviation Wx

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System Engineering Issues

- Ground based wind shear alerting future infrastructure
  - Ground based Wind Shear systems to undergo investment analysis based on need for technical refresh
    - Terminal Doppler Weather Radar (TDWR) service level extension Investment Analysis decision targeted for FY07
    - Low Level Wind Shear Alert Relocation/Sustainment (LLWAS RS) Investment Analysis targeted for FY09
    - Weather Systems Processor (WSP) Tech Refresh targeted for FY08-10 timeframe
System Engineering Issues

• Integrated Terminal Weather System (ITWS) and Corridor Integrated Weather System (CIWS) Plans
  – Maintain CIWS demonstration until NAS integration and replacement via CIWS-WARP Integration
  – Restructure CIWS software for standard accessibility by traffic flow management (TFM) tools and for ease of maintenance
  – Complete 22 ITWS system deployment by FY08
  – Prepare for Joint Resources Council (JRC) decision on final 12 ITWS systems
System Engineering Issues

- Airline Operations Centers (AOCs) need access to ITWS products
  - CDMNET provides web access to qualifying AOCs via VOLPE Center
  - Connectivity to VOLPE thru AOCs’ ISP utilizing VPN allows web access to all ITWS sites and displayable products
System Engineering Issues

- Increase Pilot and Dispatcher access to wind shear alert info.
  - Introduce a web based data base for access to current active wind shear alerts for 117 airports
  - Add WSP alerts to Terminal Weather Information for Pilots (TWIP) distribution
  - Wind shear alerts provided to pilots via TWIP for ITWS airports
  - Wind shear alerts available to dispatchers via VOLPE for ITWS airports
Route Availability Planning Tool

- Objective: improve the ability to get departures out of terminals during SWAP

- Operational users
  - EWR, LGA, JFK, TEB
  - NY TRACON
  - ZNY, ZDC, ZOB, ZBW
  - Command Center
  - COA, Delta, NWA

- RAPT being hosted on CIWS platform and continues to support NY

- Investment analysis to determine applicability to other airports

- Uses CIWS convective weather forecast and echo tops forecast to provide departure route status for 60 minutes of flight time with 30 minute look-ahead