What are the highest payoff areas for further reducing “avoidable delay” in the Northeast Corridor and Atlanta

- Post-event analysis to identify best practices and missed opportunities
- Improve forecasting of growth and (especially) decay
- Improving choice of TMIs
  - Consider “war gaming” where different strategies are tried on the same case
- Improve forecast reliability information (e.g., forecast confidence metrics, focused meteorologist support)

  Improving decision support from CWSUs at ARTCCs (and, perhaps some TRACONs) using TMU-CWSU integrated operations such as at ZTL
- Explicit translation of weather forecasts into capacity impact forecasts
- Improved training for key decision-makers (e.g., TMU, area managers)

Key issues for convection + congestion (from meeting handout)

(1) Very important to not halt traffic prematurely and, commence high volume usage of airspace /airport when capacity constraints end

(2) Try especially to reduce the capacity loss during events at airports whose demand is close to the fair weather capacity (e.g., DCA, LGA, EWR)

An example of application of (1) is shown on the next page and in the arrival recovery at Atlanta.

A similar situation arises for New York airport departures:

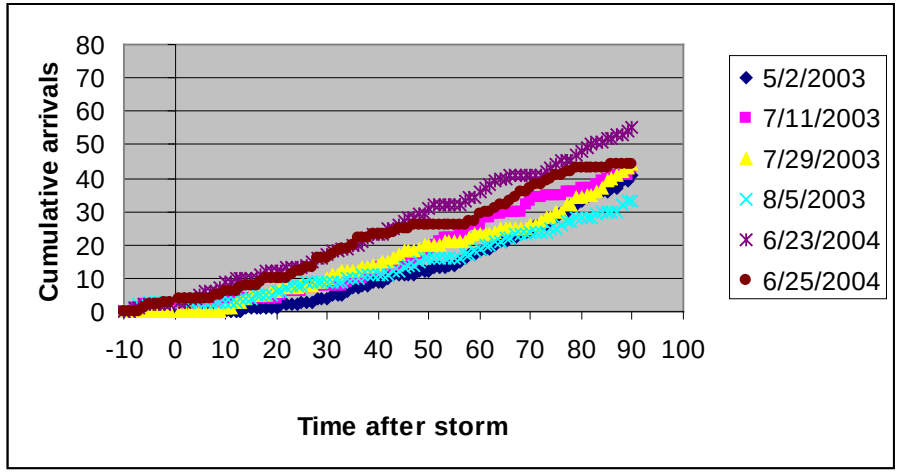
If one uses a pathfinder to reopen a route, the effective departure capacity in the first hour is about 1 aircraft/hour.

If instead, the decision makers in the TRACON and ARTCC (especially the areas associated with the departure route) will agree to at least a significant fraction of the normal departure flow in the first hour after the route can be reopened, the delays drop significantly

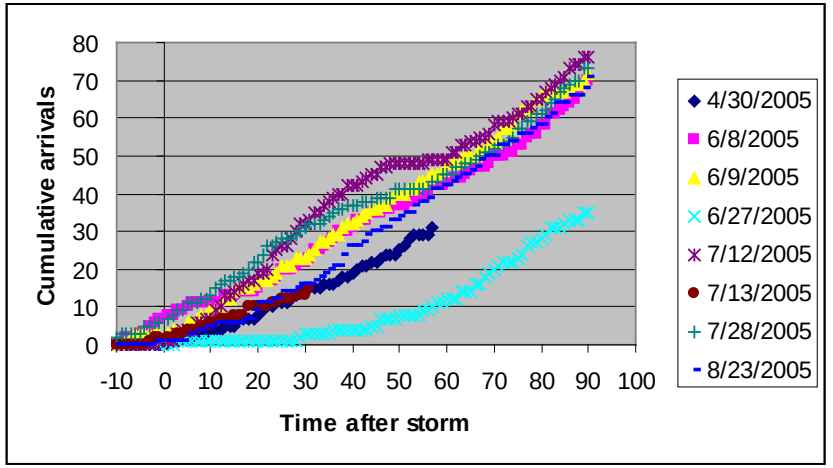
Demonstration of Faster Recovery Following Storm Impacts on A Major Airport Using ITWS Forecasts

Charlotte Intl. Airport (CLT)

Before ITWS



After ITWS



The rate of aircraft landing after an airport weather impact typically increased by a factor of two after the airport closure ended after ITWS was in use.

Additionally, the period of few arrivals after the storm impact ends was significantly reduced.

This was accomplished by proactively moving aircraft in a holding pattern in ZTL airspace to the final approach as storms moved off the airport

CLT analysis by MCR Howell, D., Paull, G, and J. Sunderlin, 2008: Operational Assessment of the Integrated Terminal Weather System (ITWS) using Direct Measurement, 26th Congress of International Council of the Aeronautical Sciences (ICAS).