

FedEx Weather Services



Boston Aviation Workshop - 2010

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Mission

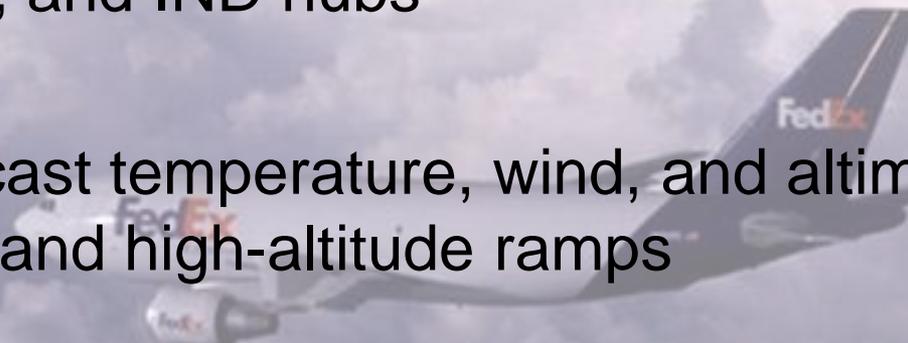
Provide the most accurate weather forecasts and briefings for North American and Caribbean operations. The Meteorology department also provides the timeliest technical meteorological data to support international flight operations. Through continuous efforts to support customer alignment in support of quality, the Meteorology department helps to ensure FedEx remains the safest, most reliable and cost-efficient air transportation system in the world.

Fast Facts

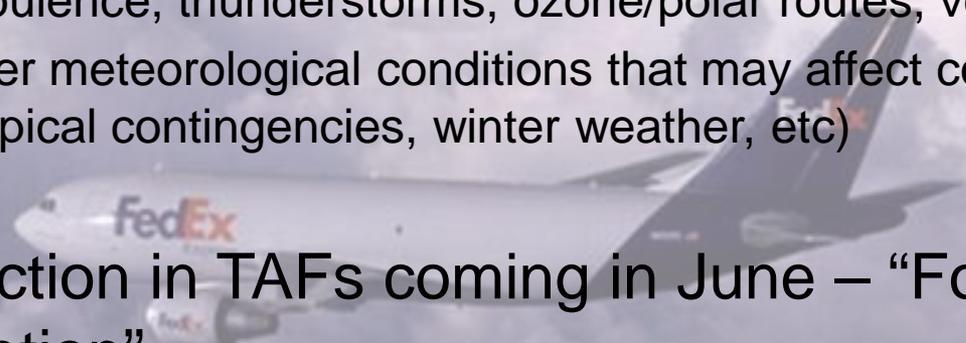
- Department formed in 1986
- Operates 24 hrs/day, 7 days/week - staff of 15
- Located within Global Operations Control, which is the department's primary customer
- Approved by FAA as primary source of forecasts for all domestic trunk flights and some international flights (360 aircraft)
- Provide additional support for all FedEx OpCo's

Responsibilities

- Issue FTs 2-3x daily for 150+ domestic and a few international locations with valid times of 16-27 hours = 10,000 forecasts / month
- Issue SNOCON/Winter Weather Advisories for MEM, EWR, and IND hubs
- Forecast temperature, wind, and altimeter settings for hubs and high-altitude ramps



Responsibilities

- Coordinate daily air operations with FedEx ATC group
 - Expert advice offered within company, including:
 - several daily weather briefings to GOC specialists
 - briefings to flight crews, as necessary
 - guidance on en-route hazardous weather conditions (i.e., icing, turbulence, thunderstorms, ozone/polar routes, volcanic ash)
 - other meteorological conditions that may affect corporate operations (tropical contingencies, winter weather, etc)
 - Reduction in TAFs coming in June – “Forecast by Exception”
 - Department resource re-allocation to allow for greater support to key decision-makers
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- A FedEx cargo plane is shown flying through a cloudy sky. The plane is white with the FedEx logo on the side. The background is a light blue sky with soft, white clouds.

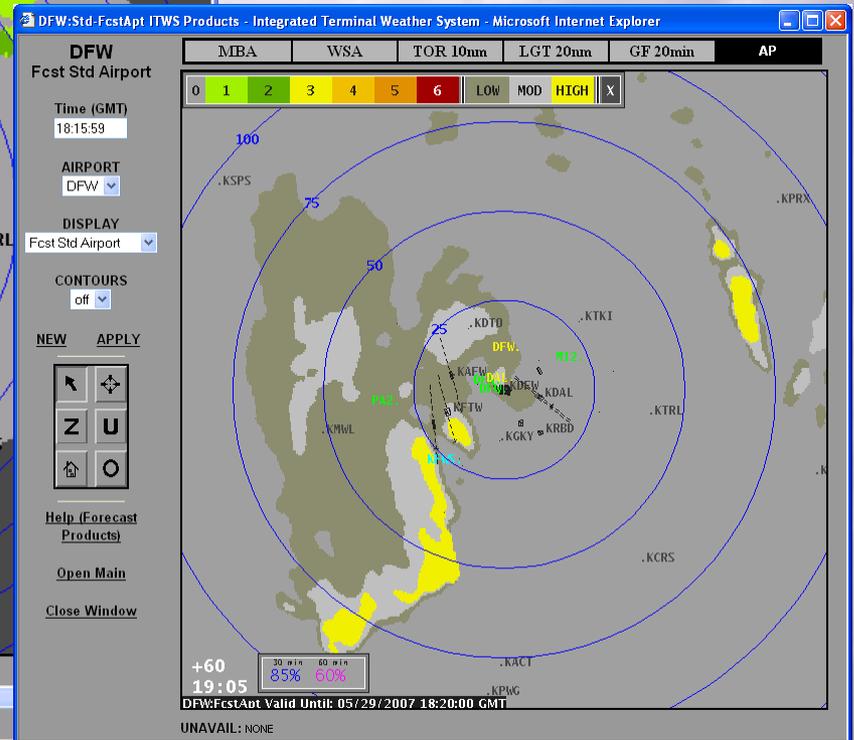
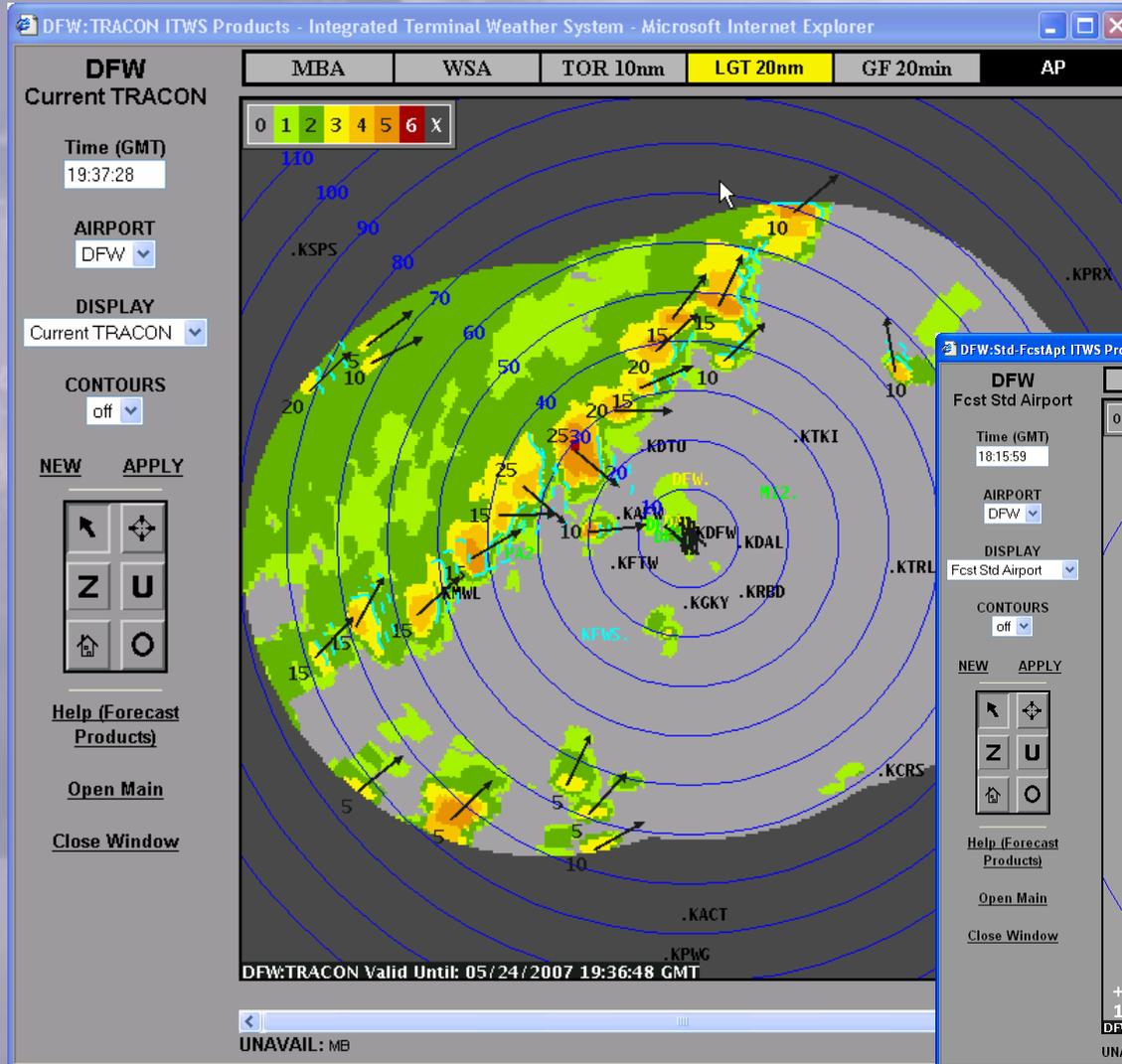
Memphis Operations

- Approximately 140 aircraft arriving between 10pm and 1am Mon-Fri
- Most sensitive time for FDX operations
- Day sort operations require about 100 inbound aircraft during the morning hours
- VFR 3-runway landing rate of 77-81 aircraft/hour
 - 2-runway ops of 52-56 aircraft/hour

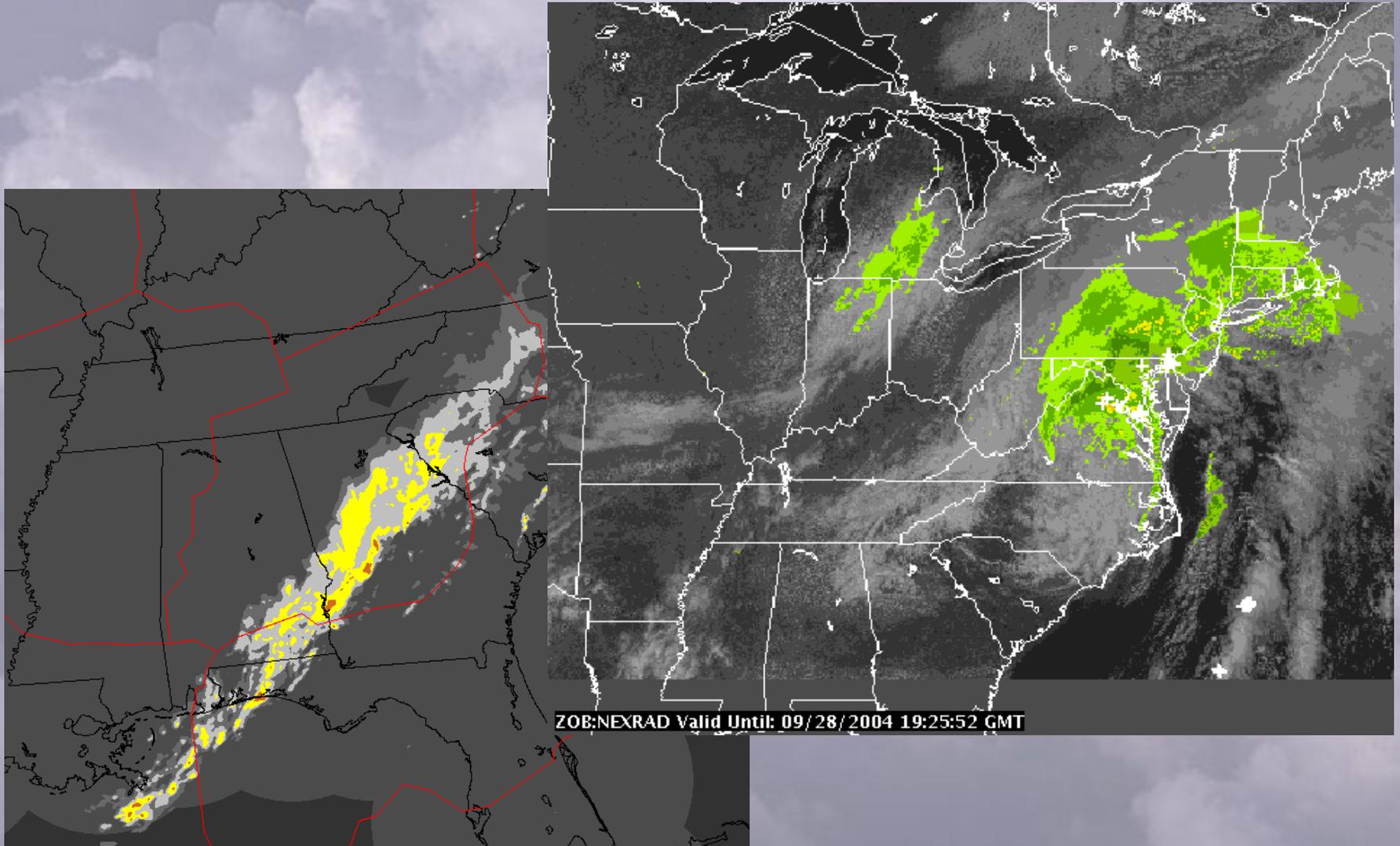
Convective Weather Tools

- ITWS / CIWS
- Digital ITWS / SWIM
- CCFP and LAMP-CCFP Hybrid utilized by Mets and Dispatchers
- Mets use High Resolution Rapid Refresh (HRRR) and SREF models for additional guidance
- Flight Explorer (dispatch)

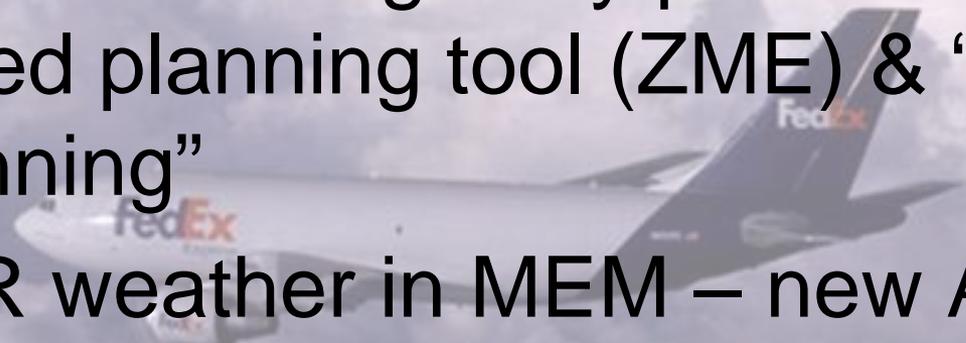
Integrated Terminal Weather System (ITWS)



Corridor Integrated Weather System (CIWS)



ATC Coordination

- Operation sensitive to Northeast Corridor convection – ATCSCC SPT's
 - Greater focus on convection in ZME airspace during busy periods – TRACON-based planning tool (ZME) & “Next Day Planning”
 - LIFR weather in MEM – new ATCT @ 336' in early 2011
- 
- A FedEx airplane is visible in the background, flying through a cloudy sky. The plane is white with the FedEx logo on the tail and fuselage. The sky is filled with soft, white clouds.

Weather Information Display System

- WINDS – Official source of weather information for FDX Corp.
- WINDS provides comprehensive information for both the Meteorologist and Corporate users and decision-makers (graphics, amount of data, robustness)
- IPS Meteostar, Inc. (IPSM – Aurora, CO) designed and built the primary system and hosts a disaster recovery backup

WINDS website

- Displays all pertinent weather data (obs, radar, satellite, model data, watches & warnings, tropical plots) in graphical and/or textual formats
- Available on corporate intranet and on the internet via Pilot website and login
- National Weather Service (NOAA/PORT) and IPSM are data providers

LEADS Weather Workstation

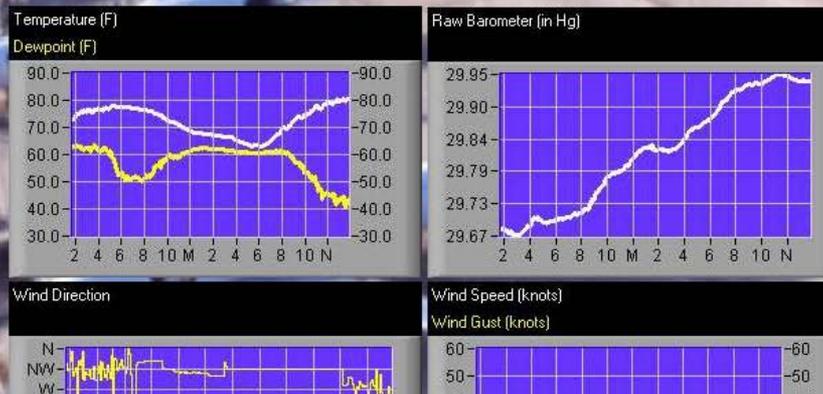
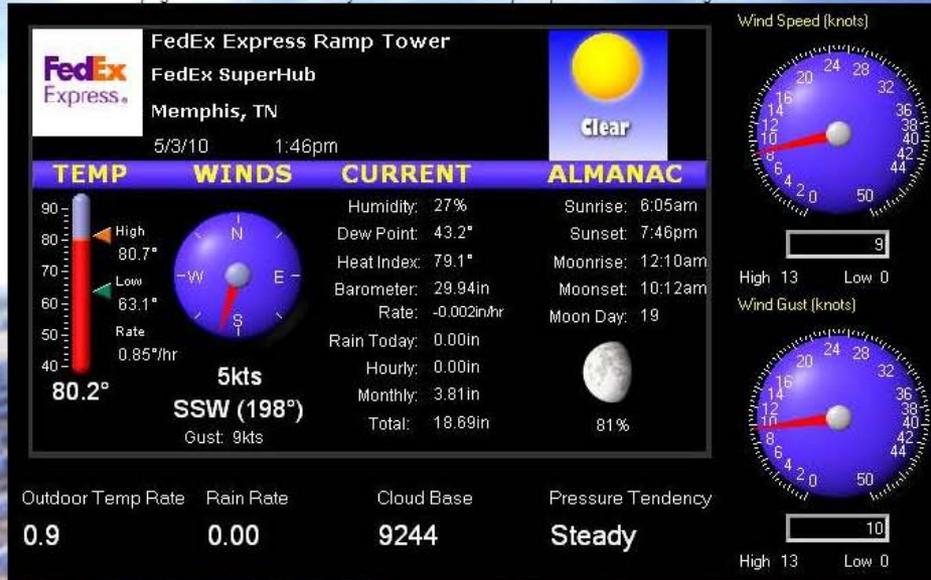


Ramp Tower Weather

Memphis Ramp Tower Weather

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This page will auto-refresh every 3 minutes. Frozen precipitation does not register until it melts.



Thunderstorms vs. Hub Inbound



* Flights with “tags” (flight numbers) are aircraft that diverted

QUESTIONS?

