



jetBlue®

WEATHER DECISION-
MAKING PRIORITIES:
AN AOC PERSPECTIVE

TOM LLOYD | MANAGER METEOROLOGY &
ROUTE OPTIMIZATION/AIR TRAFFIC SYSTEMS

jetBlue

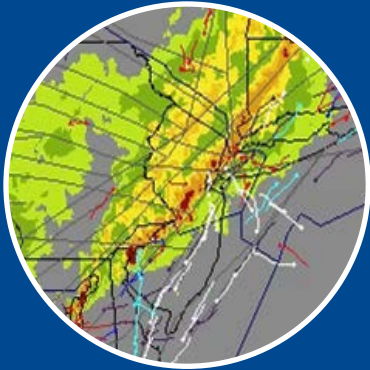


JETBLUE SYSTEM OPERATIONS

- SOC located at Long Island City, NY
 - Overall coordination of all flight operations
 - Operational planning
 - Disruption recovery
- SOC functions
 - Manager on Duty
 - Flight Dispatch
 - System Control
 - Crew Resources
 - Maintenance Control
 - Air Traffic Coordination



LINKAGE OF WEATHER FORECASTS TO KEY SOC DECISIONMAKING AREAS



National
Airspace
System
(NAS)
Operations



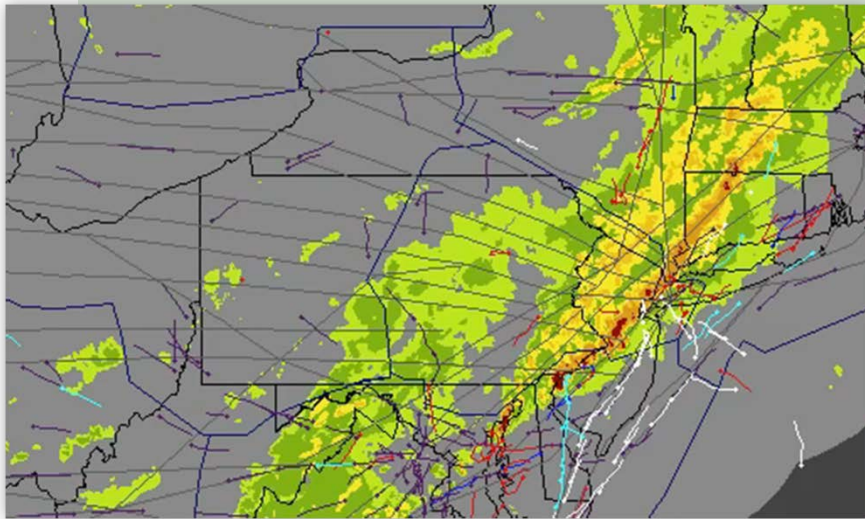
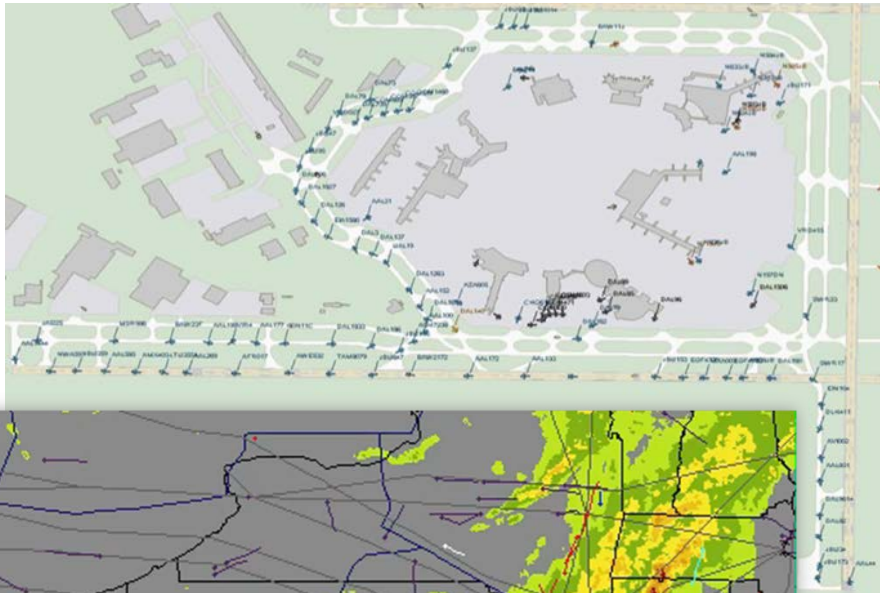
Flight
Dispatch /
Operational
Control



Ground
Operations
Support



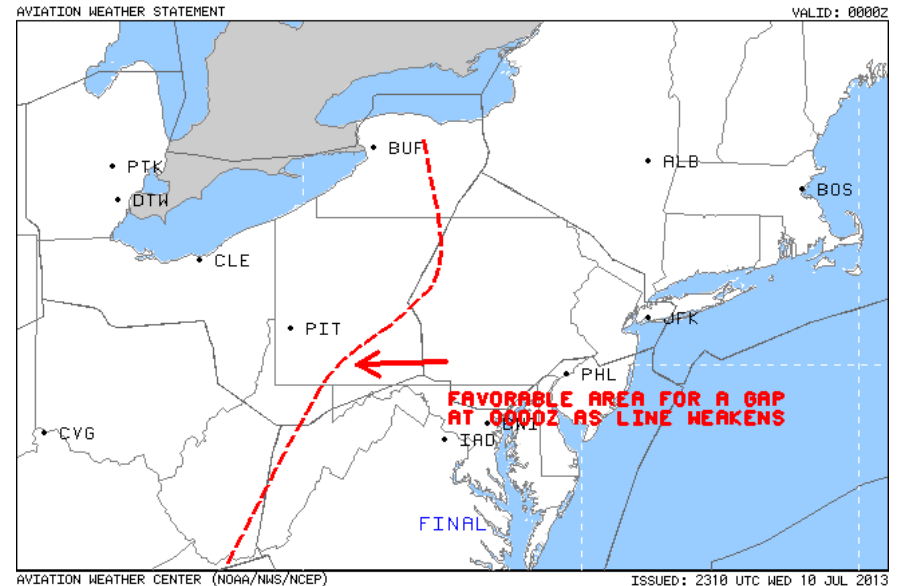
NAS OPERATIONS: WX/ATM INTEGRATION



- All airspace is not created equal
 - Up to 50% of Ground Stop/GDPs are at a NYC airport
 - 1/3 of all US flights are directly affected by NYC/PHL delays
 - Pre-DOT rule, vast majority of 3-hour tarmac delays departing NYC airports
- “One-size-fits-all” products are less effective for NYC ops

COLLABORATIVE DECISION MAKING

- Mission: Evolve the CCFP concept
 - Keep up with the state of forecast science
 - Incorporate new tech
 - Flexible and tailored to NAS constraints: focus resources, maximize efficacy
- Operational Bridging
- Aviation Weather Statement (AWS)



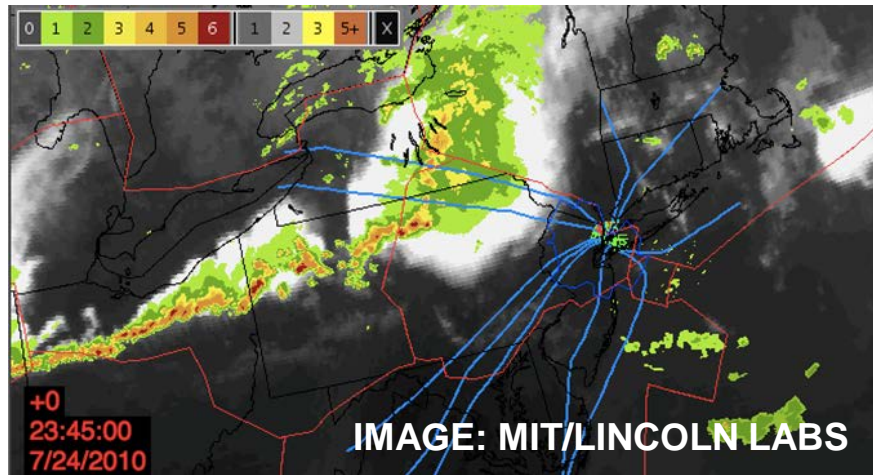
AVIATION WEATHER STATEMENT 0108
NWS AVIATION WEATHER CENTER KANSAS CITY MO
2310 UTC WED 10 JUL 2013

VALID TIME...0000Z

NAS ELEMENTS EFFECTED...J80, Q42

CONSTRAINTS...THE CONTINUOUS LINE OF DEEP CONVECTION STRETCHING SOUTH FROM WESTERN NY STATE WILL WEAKEN DURING THE NEXT HOUR AND DEVELOP BREAKS. THE ROUTES LISTED ABOVE WILL OPEN AT 0000Z.

CDM: OPERATIONAL BRIDGING



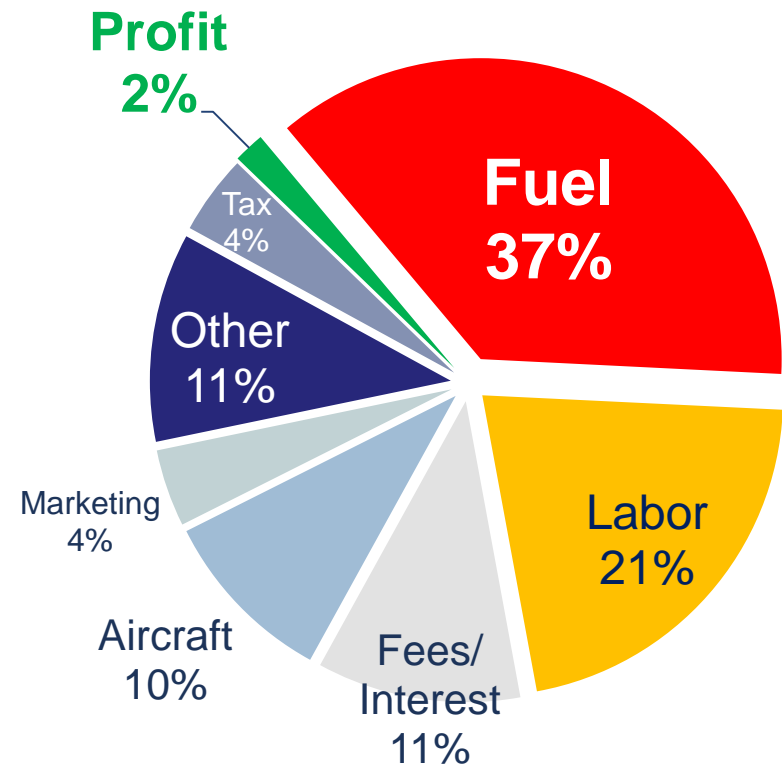
- OB Summer 2013 Demo is ongoing
- Collaborative
 - NAS operator meteorologists
 - NWSChat
- NWS/AWC support
- Future considerations
 - FAA/NWS Budgets
 - Active operator collaboration
 - Tech/cultural integration



DISPATCH: SAFETY, LEGALITY, FUEL IN A CHANGING ECONOMIC & REGULATORY ENV.

- Terminal Forecasts
 - Regulatory necessity (TAF)
 - C&V, Winds
 - Anticipate runway condition/performance
- Turbulence/Icing
- Other hazards
 - Volcanic Ash
 - Convective
- Fuel: cost to carry, cost to divert
- EWINS

2012 Financials (Revenue apx \$5B)



GROUND OPS/INFRASTRUCTURE PLANNING A CURRENT GAP

- De-icing/anti-icing – holdover/allowance time
 - Currently based on P-type, intensity
 - Often difficult to forecast/plan
- Gap in forecasting beyond 2 hours
- TAF format restricts expressing forecast for low-probability/high impact events (FZRA, ice pellets etc.)



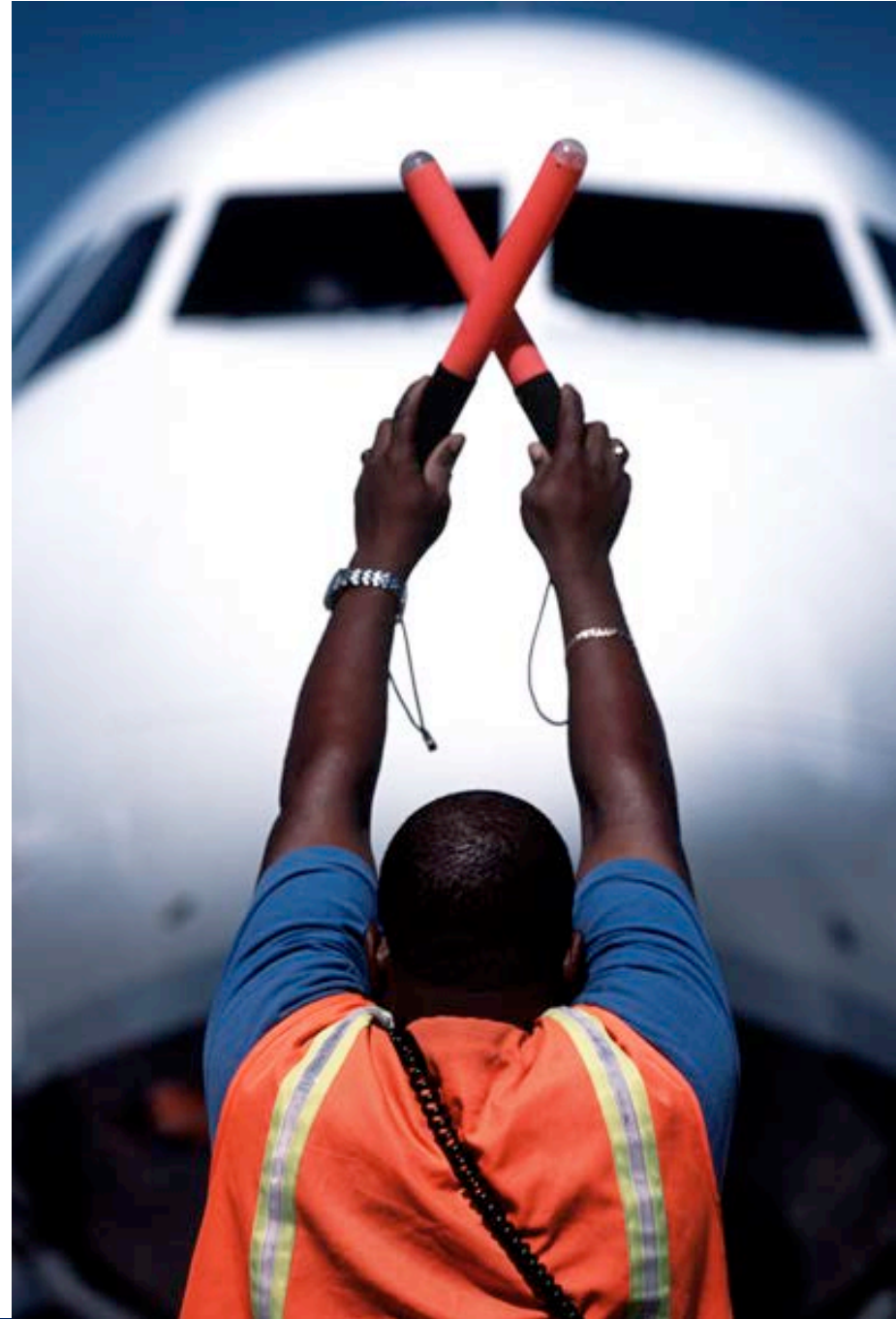
GROUND OPS/INFRASTRUCTURE PLANNING A CURRENT GAP

- Infrastructure determines ops tolerance for bad weather
 - Navigation equipment
 - Lighting
 - Runways/taxiways
- Natural hazards
 - “Snowtober” 2011
 - Sandy/Nor’Easter 2012
- Budget constraints



FINAL THOUGHTS

- The weather community succeeds when connected to its customers
 - Forecasts built around the needs of the user
 - ...but flexible to evolve with those needs
- Lessons from the ATM world apply outside the field as well



A low-angle shot of a JetBlue aircraft's tail fin against a blue sky with light clouds. The tail fin features the JetBlue logo in white on a dark blue background. The rest of the aircraft is visible in the lower right corner.

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THANK YOU