

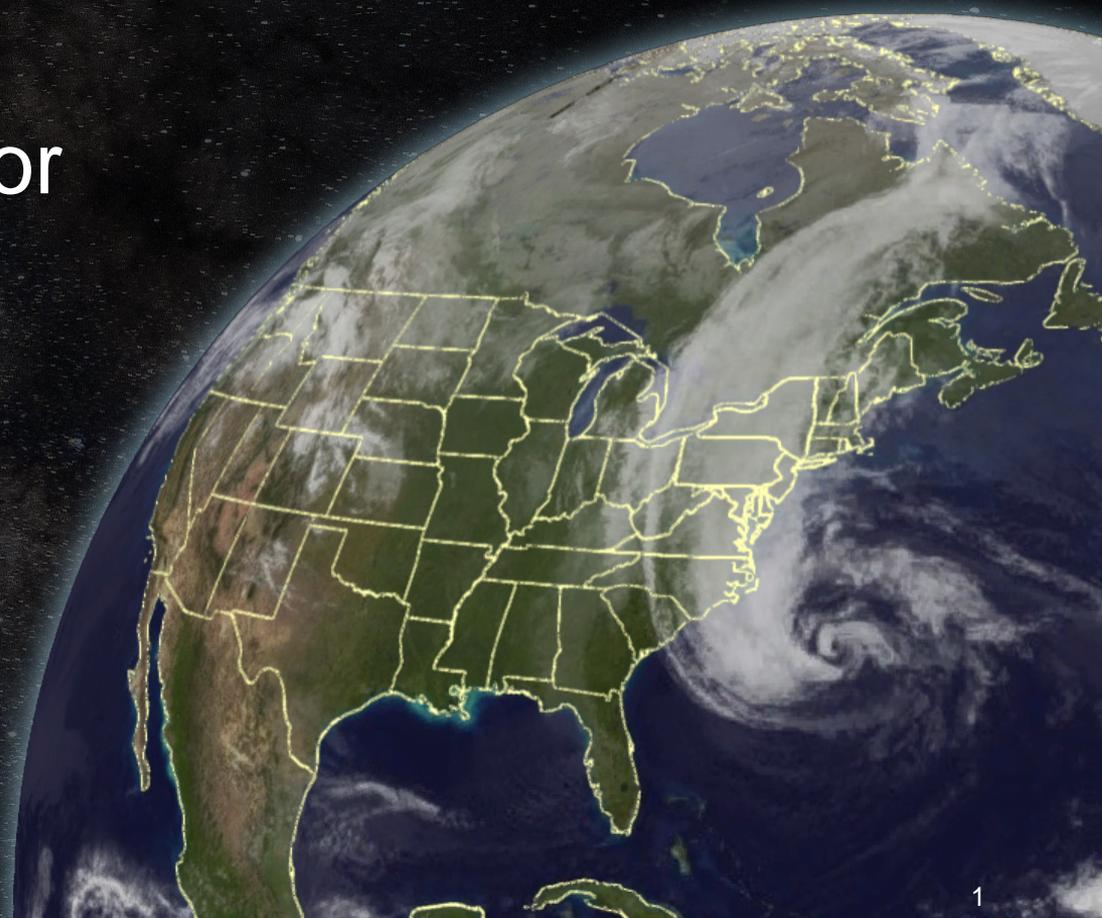
Impact-based Decision Support for Aviation

Brian Etherton

NOAA/ESRL/GSD

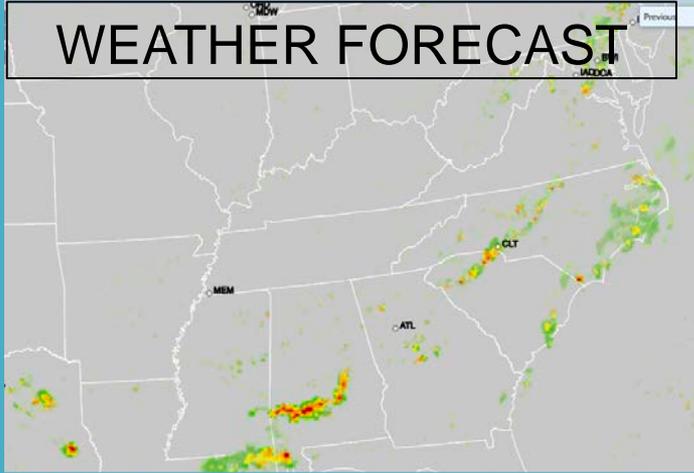


GSD Science Review
3-5 Nov 2015

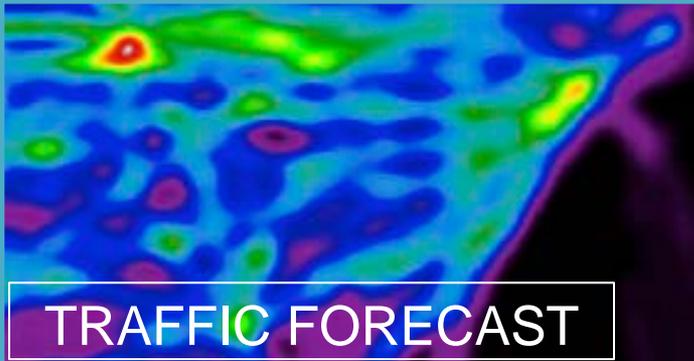


Aviation Weather

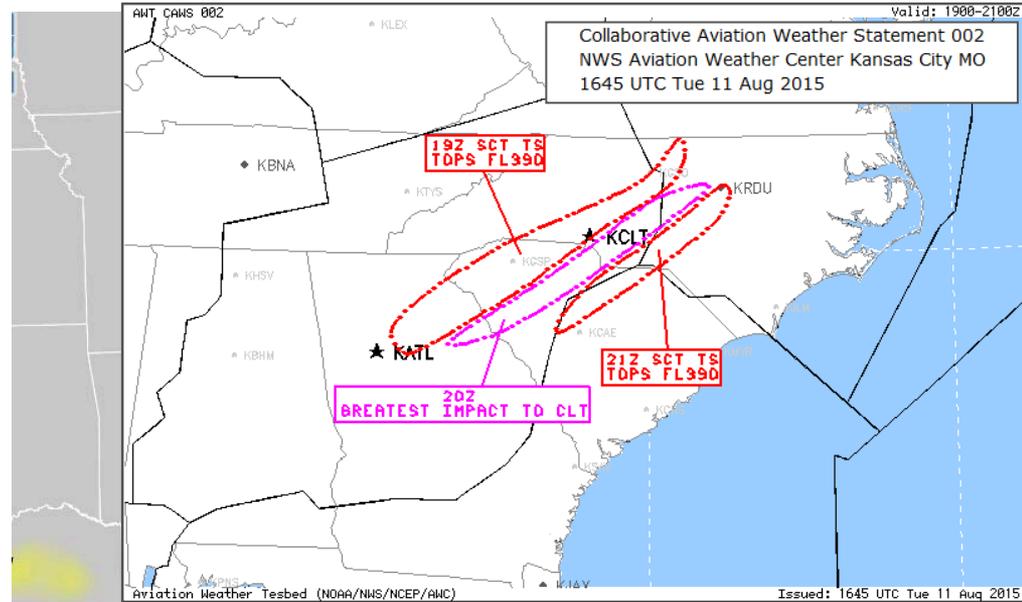
WEATHER FORECAST



TRAFFIC FORECAST



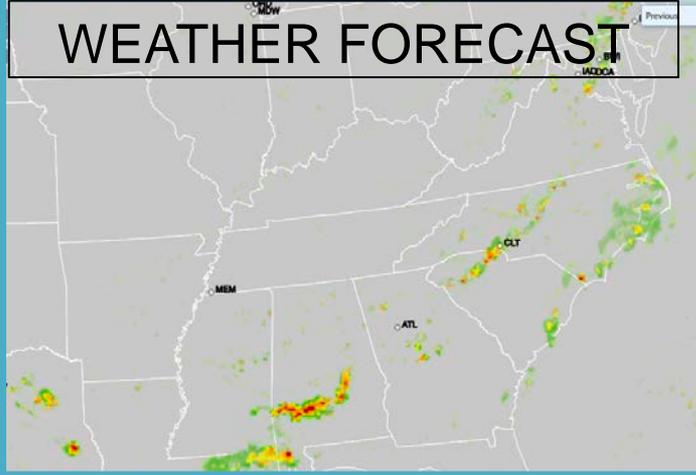
Forecast issued by the NWS Aviation Weather Center – convective (thunderstorm) weather of importance for en-route air traffic



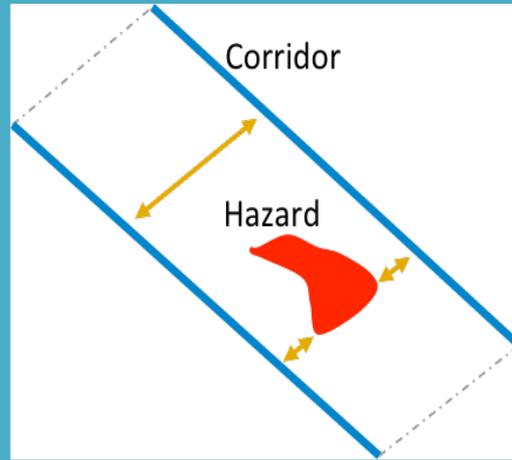
Making forecasts better

Aviation Weather

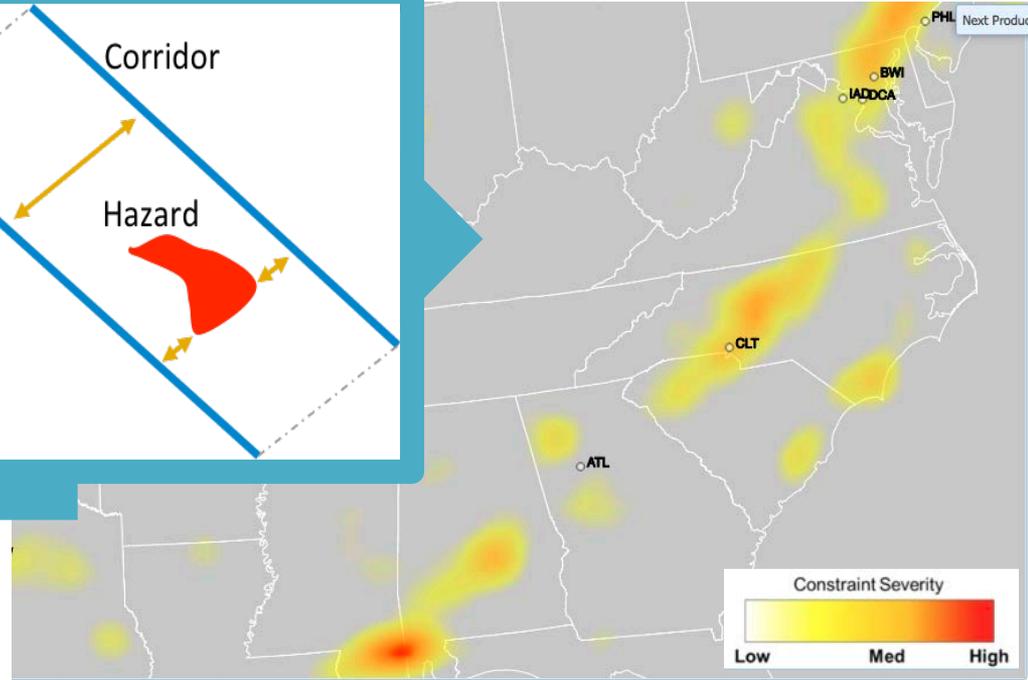
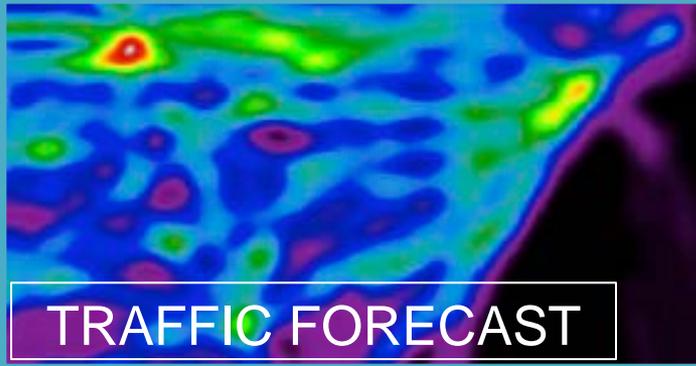
WEATHER FORECAST



AIR TRAFFIC FLOW
CONSTRAINED BY WEATHER



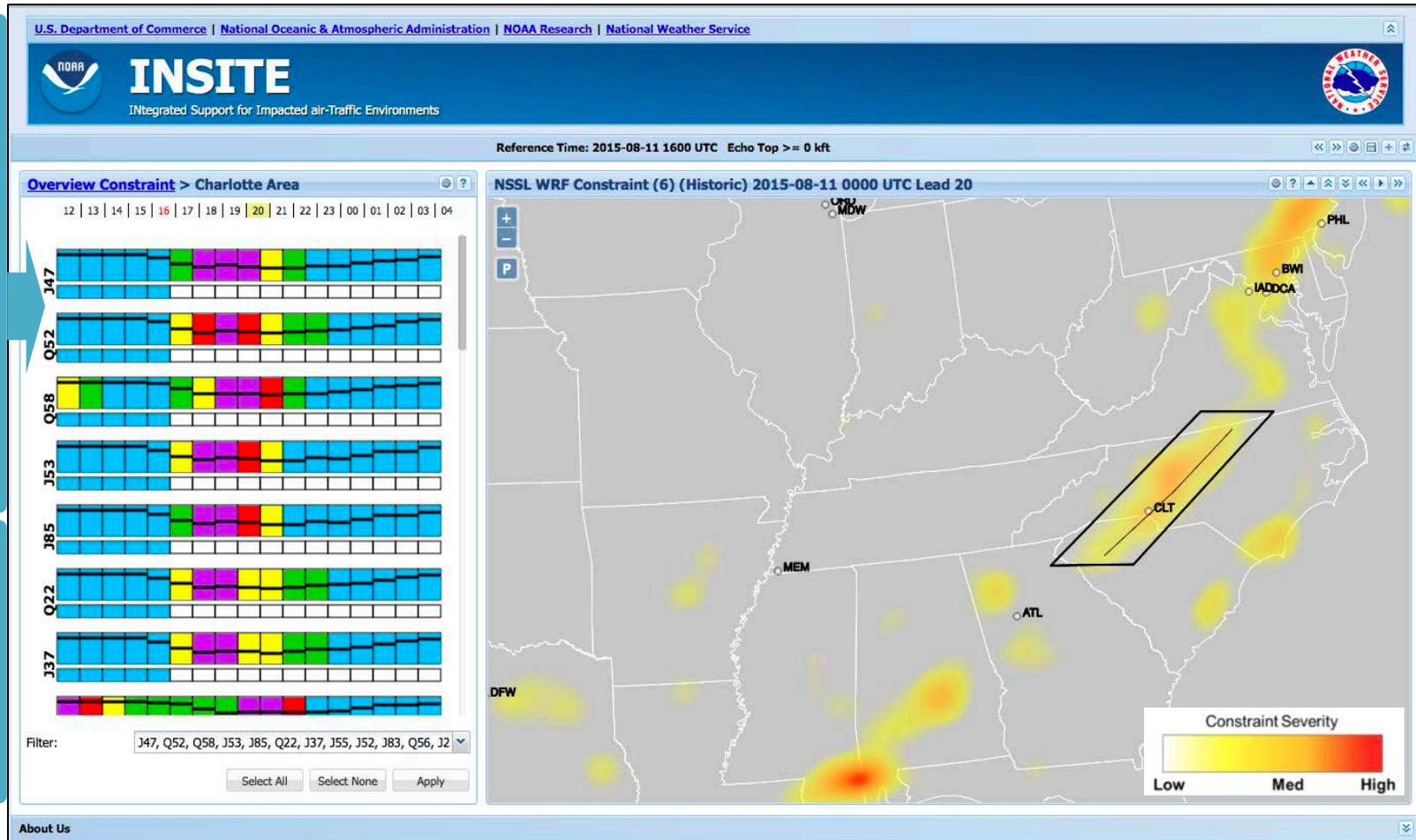
TRAFFIC FORECAST



Impact-based Decision Support

TIME
SERIES
OF WHICH
ROUTES
WILL BE
MOST
IMPACTED
BY
WEATHER

**Constraint
colors**
Blue - None
Green - Light
Yellow - Low
Red - High
Purple - Severe



- Allow for better planning
 - Strategic, rather than tactical decisions
 - Fewer delays, diversions, and cancellations
 - Maintain safety, improve efficiency
- Operations
 - INSITE in transition to operations at the National Weather Service, expected in 2017
 - Transition via Integrated Dissemination Program (IDP)
- Future plans
 - Add in other weather (fog, snow, winds)
- Test INSITE
 - Incorporated into the electronic poster session