

Update on GOES-R Proving Ground Activities at the Operations Proving Ground



Chad Gravelle

GOES-R/JPSS All-Hands Call – 12 January 2015



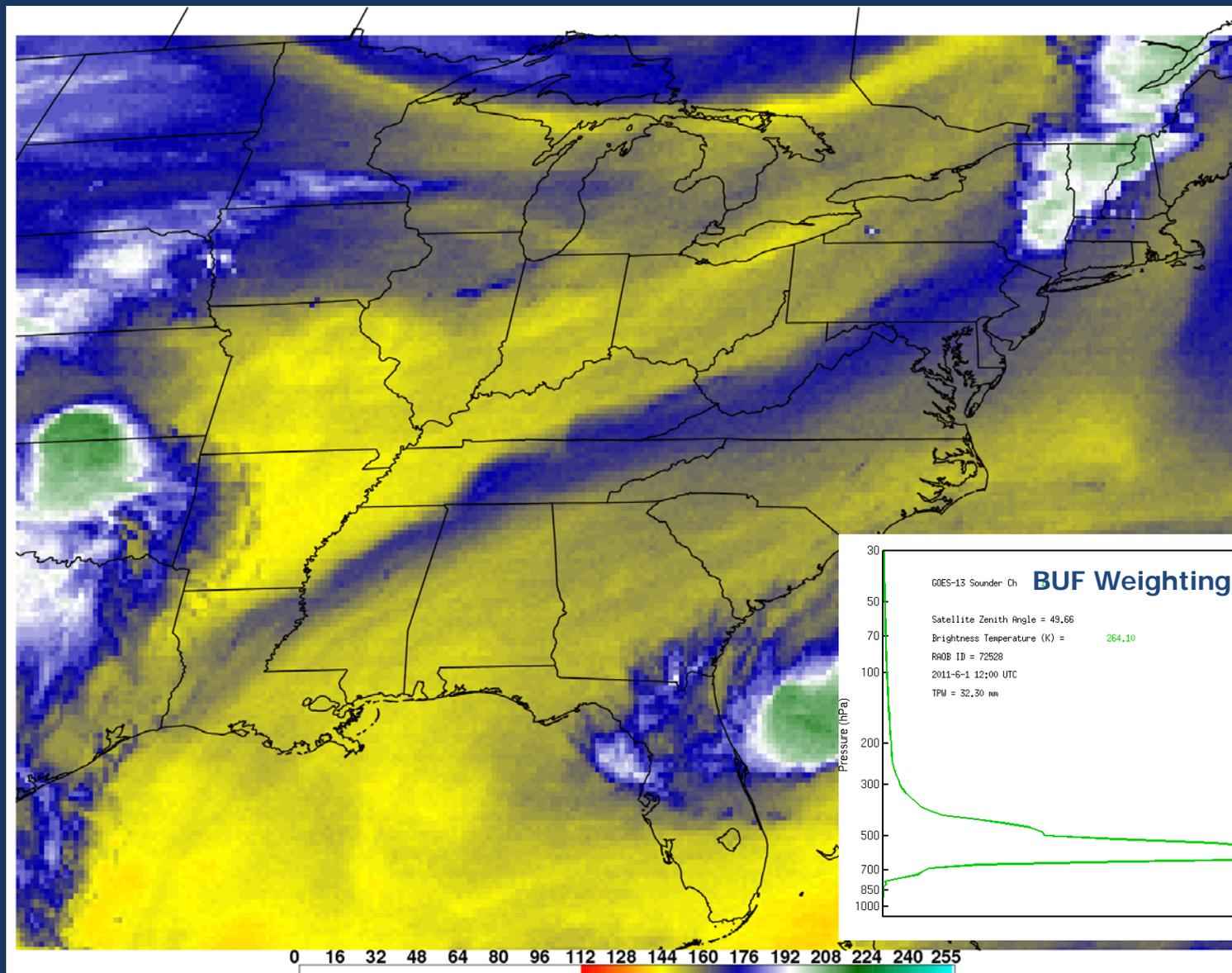
Evaluating the Usefulness of 1-min Imagery in the GOES-R Era

- **Overarching Question: Does 1-minute satellite imagery impact the forecaster's ability to make effective forecast and warning decisions?**
- **Beginning 9 February, 18 NWS forecasters...3 forecasters a week...6 weeks.**
- **4 1/2 days at the OPG, completing seven simulations run in "real time".**
 - 3 Convective Warning Simulations (Organized and Pulse Convection)
 - 1 Mesoscale Analysis Simulation
 - 1 Full Convective Warning Simulation (Severe Weather Outbreak)
 - 1 Fog and Low Status Simulation
 - 1 Fire Weather Simulation
- **How does 1-minute satellite imagery impact:**
 - Mesoscale Analysis and Convective Warning Operations
 - Updating Terminal Area Forecasts
 - Updating Short-term Forecasts
 - Forecaster Workflow and Risk Communication

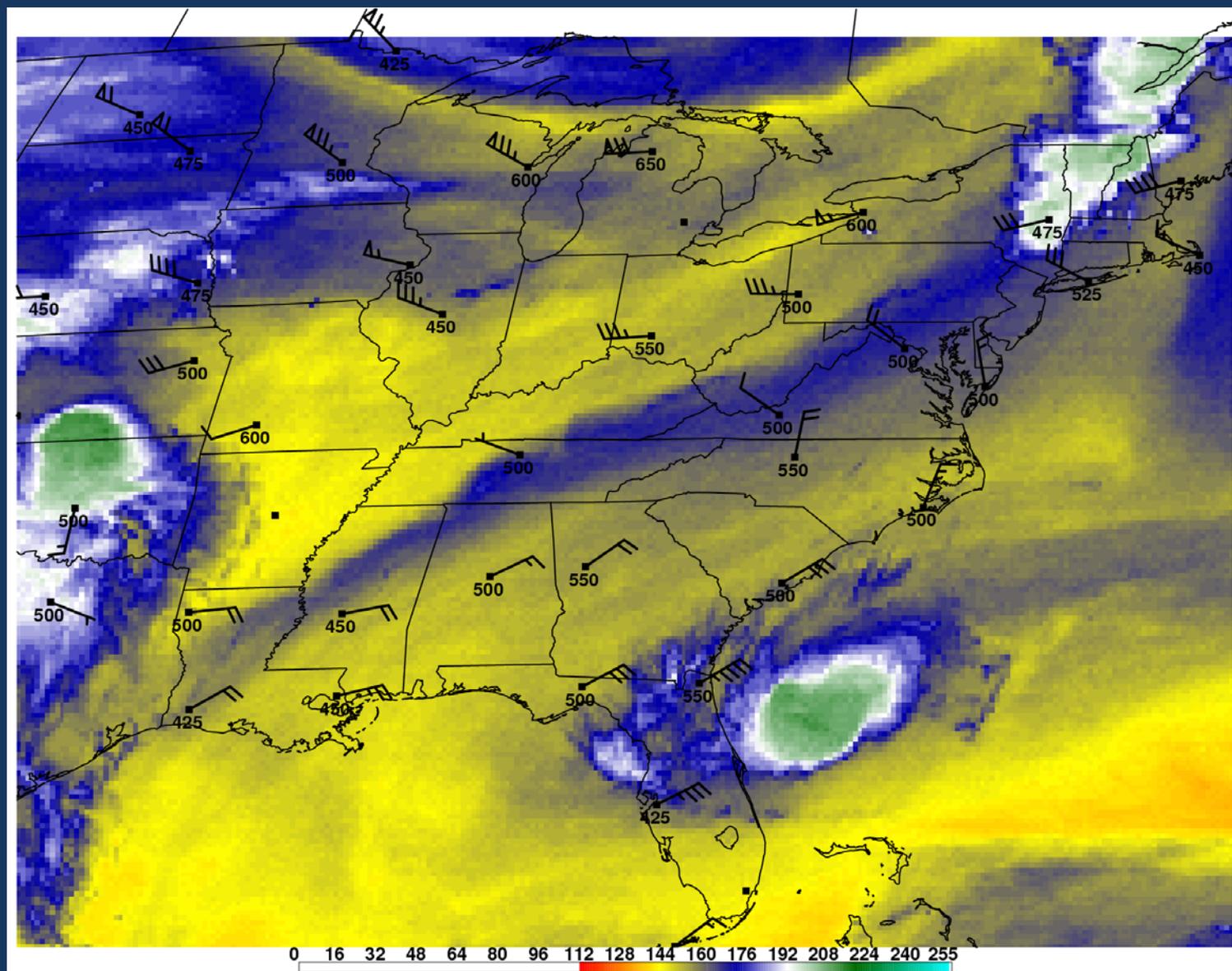
- **Assessing quantitatively and qualitatively through...**
 - Warning Lead Time Statistics
 - Confidence and Correctness at Decision Points
 - Recent Cast Walkthrough
 - Surveys and Group Discussions
- **Participating forecasters will complete a training packet consisting of a journal article (Schmit et al. 2015) and articulate modules prior to arriving at the OPG.**
- **The evaluations will occur during the weeks of:**
 - February 9th
 - February 23rd
 - March 2nd
 - March 16th
 - March 23rd
 - April 6th



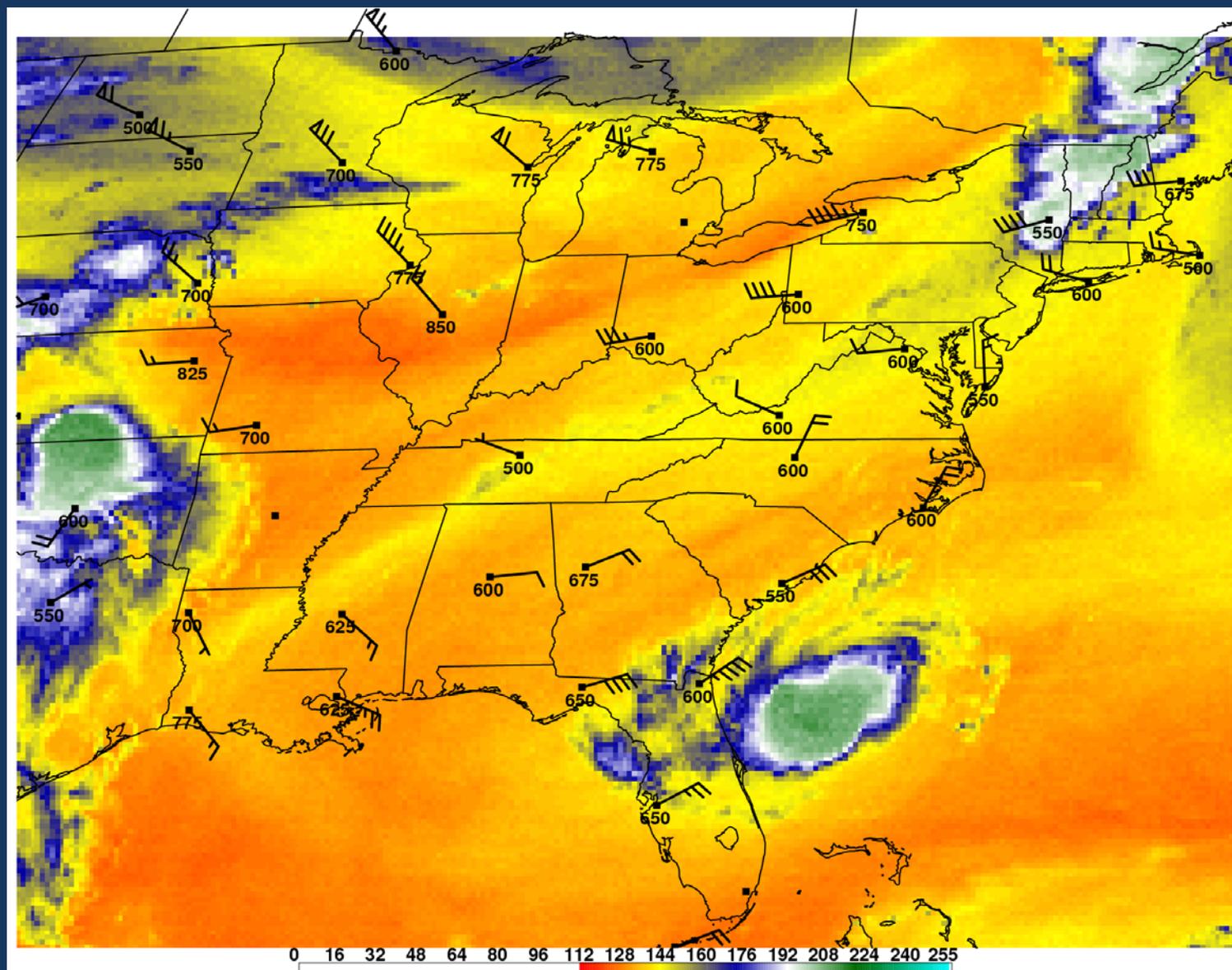
- **Baseline Capability**
- **NWS Central Region “Evaluation” of Using Multiple Water Channels**
 - Goal: To gather applications and cases on using multiple water vapor channels.
 - GOES Sounder
 - WRF Synthetic Satellite Forecasts
 - AWIPS2 Offices
 - NWS POCs: Dan Nietfeld (OAX) and Rick Ewald (GID)
- **Manuscript with Christopher Gitro (WFO EAX)**
- **Northeastern U.S. Convective Events**



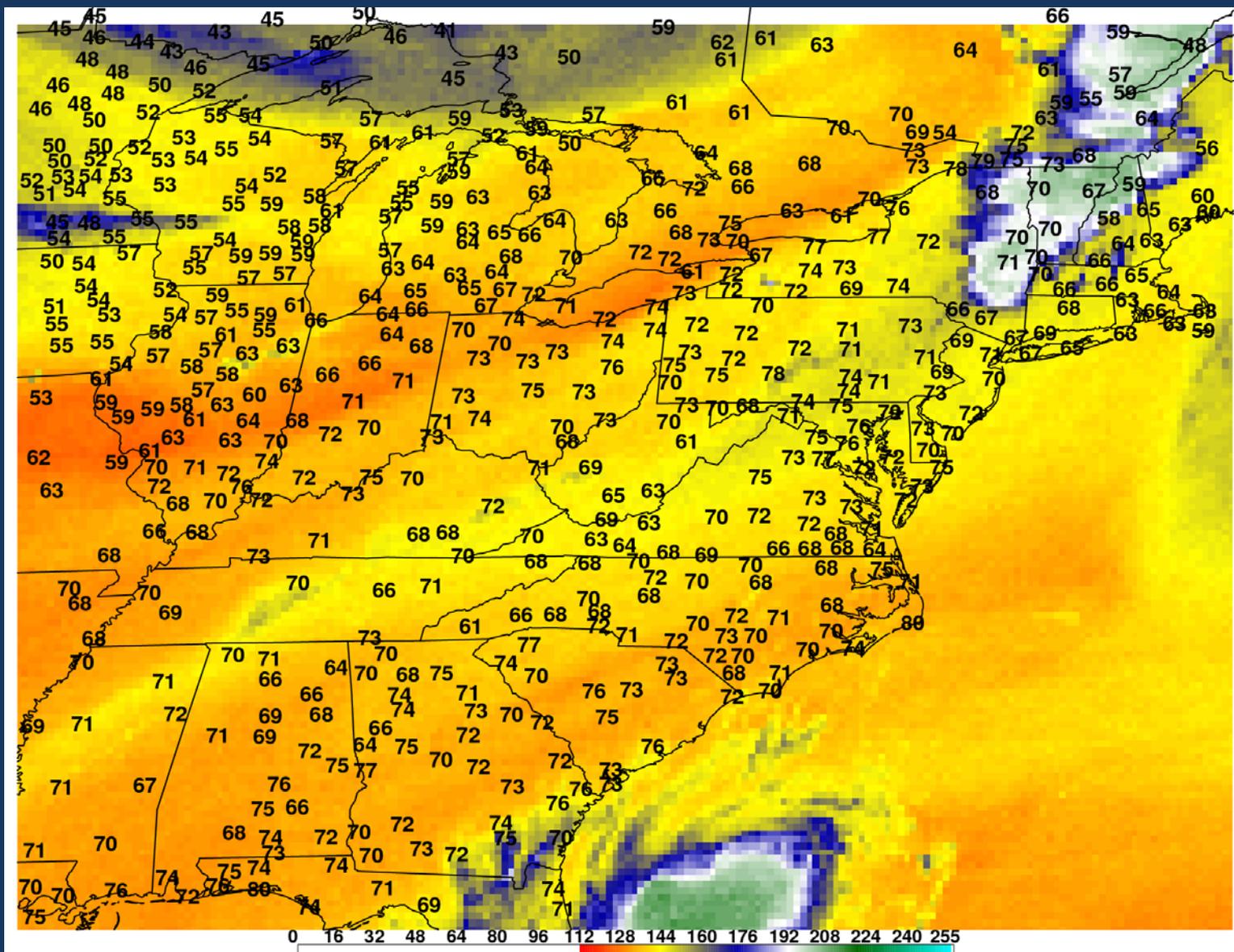
1 June 2011 1200 UTC - 7.02 μm



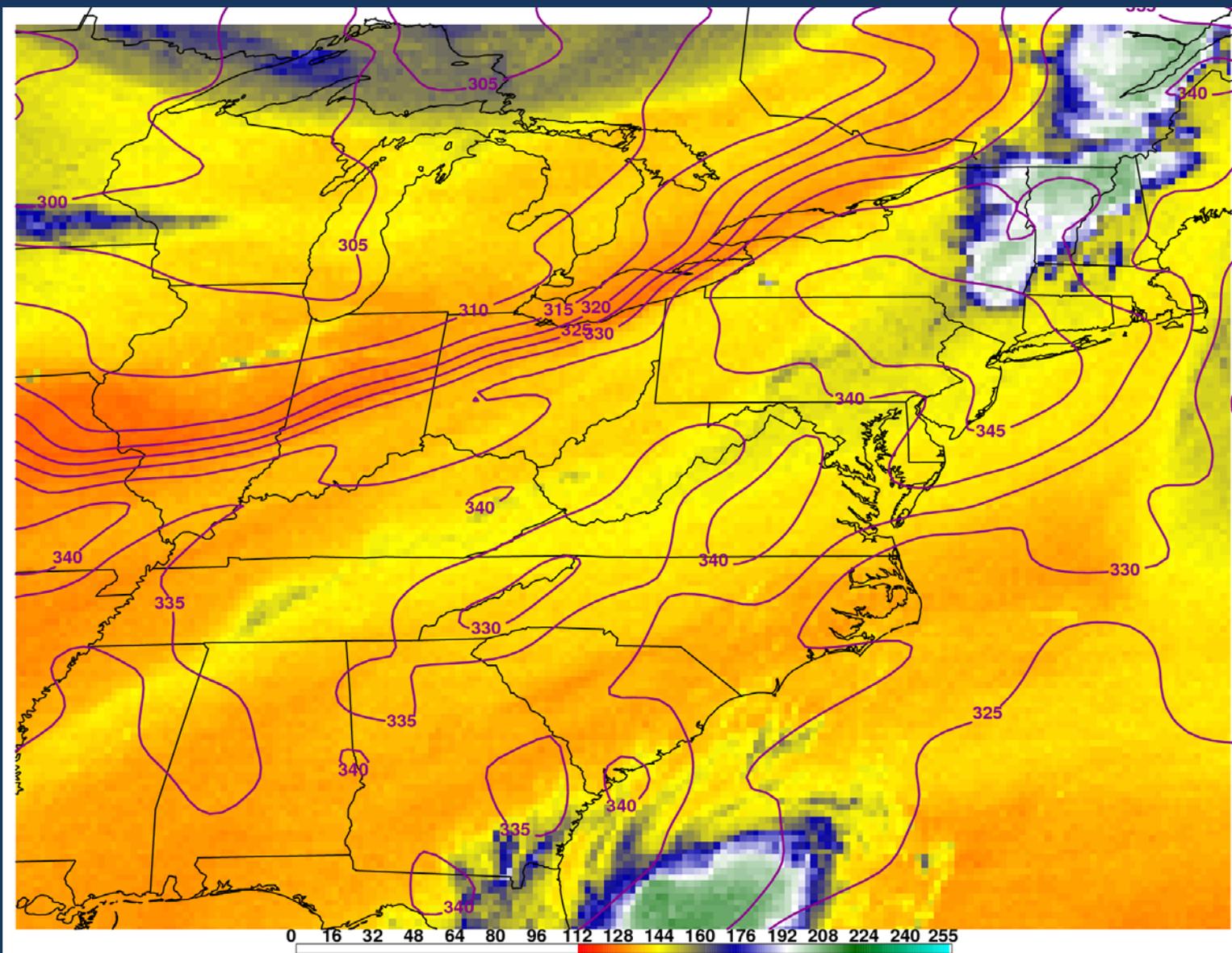
1 June 2011 1200 UTC - 7.02 μm and Weighting Function Peak Wind and Pressure



1 June 2011 1200 UTC - 7.45 μm and Weighting Function Peak Wind and Pressure



1 June 2011 1200 UTC - 7.45 μm and METAR Temperature



1 June 2011 1200 UTC - 7.45 μm and RUC 850-hPa THTE



"Other Things"

- **Presentations**
 - EUMETSAT Satellite Conference
 - National Weather Association Annual Meeting
 - Southwest Michigan AMS/NWA December Chapter Meeting
 - American Meteorological Society Annual Meeting
 - NWS Pleasant Hill WFO Severe Weather Workshop (March 11th)
- **BAMS Publication is in final revisions.**
- **OPG and TOWR-G**
- **OPG and Himawari-8 as User-Readiness for GOES-R**