

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



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GOES-R/JPSS All-Hands Call – 8 September 2014



The last two months...

- SOO/DOH Satellite Training Team – Satellite Liaison Advisor
- CIRA/COMET/Satellite Liaison Meeting
- Planning of OPG GOES-R 1-min Imagery Evaluations - Ongoing
- Central Region Evaluation of Multiple Water Vapor Channels
- BAMS Publication
- EUMETSAT Conference
- Coordination of GOES-R Products with Forecast Offices - Ongoing



SOO/DOH Satellite Training Team – Satellite Liaison Advisor

- **Team: 1 SOO from each NWS Region, 1 DOH, and 1 NCEP SOO**
- **Team Mission: To identify immediate and long term training requirements that will lead to the effective and efficient use of satellite data and products in the forecast and warning process.**
- **My role as an advisor is to assist the Team with any Satellite PG related questions they may have and provide guidance on effective practices developed by the Satellite Liaisons.**
- **Team will deliver recommendations to NOAT by November 1.**



CIRA/COMET/Satellite Liaison Meeting

- Occurred 2-4 September in Fort Collins and Boulder, CO
- **CIRA Meeting – CIRA Staff**
 - Discussion Topics Included:
 - CIRA Products
 - 1-min Imagery Cases and Training
 - Sky Cover
 - RGBs
 - AWIPS2
- **COMET Meeting – Tony Mostek, Leroy Spayd, Ed Mahoney, Brian Motta, and Wendy Abshire**
 - Discussion Topics Included:
 - NWS Training Division and Office of the CLO
 - Lessons Learned from WDTB
 - Developing and Delivering Training with COMET
 - ADDIE Model and Instructional Design



Planning of OPG GOES-R 1-min Imagery Evaluations

- The following WFOs were receiving the August GOES-14 Super Rapid Scan Operations for GOES-R imagery in AWIPS or AWIPS-2...
 - BOU
 - OAX
 - MKX
 - RAH
 - CHS
- Feedback on the usefulness and added value of 1-min imagery was given to the OPG via email, telecon, blog post, online survey, etc. from these offices.
- SRSOR in these offices would not have been possible without the coordination from Tim Schmit, Dan Lindsey, Matt Foster, Dave Radell, Josh Watson, Eric Thaler, Dan Nietfeld, Jeff Craven, Frank Alsheimer, Jonathan Blaes, and others.

CIMMSE Collaboration for Improved Meteorology in the Mid-Atlantic and Southeast

Academic, operational, and government partners working together to improve meteorology



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← GOES-14 will be in Super Rapid Scan Operations with imagery over the Carolina's and Virginia's available today and Monday → [Impact of lack of rain seen on LIS soil moisture imagery](#) →

An Example of How GOES-14 Super Rapid Scan Operations for GOES-R Helped During Warning Operations at NWS WFO Raleigh, NC on 18 August 2014

Posted on August 24, 2014 by [ryanelliswforah](#)

GOES-14 Super Rapid Scan Operations for GOES-R (SRSOR) was operating over North Carolina on Monday August 19th during severe weather operations at WFO Raleigh. During the event, there were several instances where having the increased temporal resolution was very advantageous during radar interrogation and warning operations. At around 2000 UTC a multi-cellular broken line of showers and thunderstorms approached the Greensboro and Winston-Salem area from the northwest (Fig. 1).

Recent Posts

- [Hurricane Arthur Marine Wind Gust Factor Analysis](#)
- [Impact of lack of rain seen on LIS soil moisture imagery](#)
- [An Example of How GOES-14 Super Rapid Scan Operations for GOES-R Helped During Warning Operations at NWS WFO Raleigh, NC on 18 August 2014](#)
- [GOES-14 will be in Super Rapid Scan Operations with imagery over the Carolina's and Virginia's available today and Monday](#)
- [NASA SPoRT LIS Soil Moisture Assessment – Application for the](#)

So how did having the Super Rapid Scan Operations for GOES-R impact our warning operations here at WFO RAH?

“Knowing how the boundary was evolving led us to begin to see small features in the flow, such as the meso-low pressure and associated area of low-level convergence on the east side of the low which led to the growth of the storm over Northern Alamance County.”

Did having the Super Rapid Scan push us over the edge to warn on a storm before radar indications of its severity?

“No, but warning operations involve so much more than that one warn/no warn decision point. While the greater temporal resolution of the satellite imagery did not ultimately make us warn based on that data alone, it certainly increased our confidence in our warning decisions and ultimately made the process more efficient because that evidence was coming in quicker than ever before.”



Planning of OPG GOES-R 1-min Imagery Evaluations

- **Evaluation Goal:** To provide guidance to the NOAT, NWS HQ, and the GOES-R Program Office on the value of high-temporal imagery in WFO forecast operations.
- **Currently sifting through convective, fog, and fire cases for 11 "slots" for an evaluation week.**
- **OPG 1-min Imagery Evaluation Plan will be completed in October and sent to NOAT and SDEB for review.**
- **The evaluation is tentatively planned to begin in late January and will run every other week (5 weeks total with 4 forecasters) through mid March.**

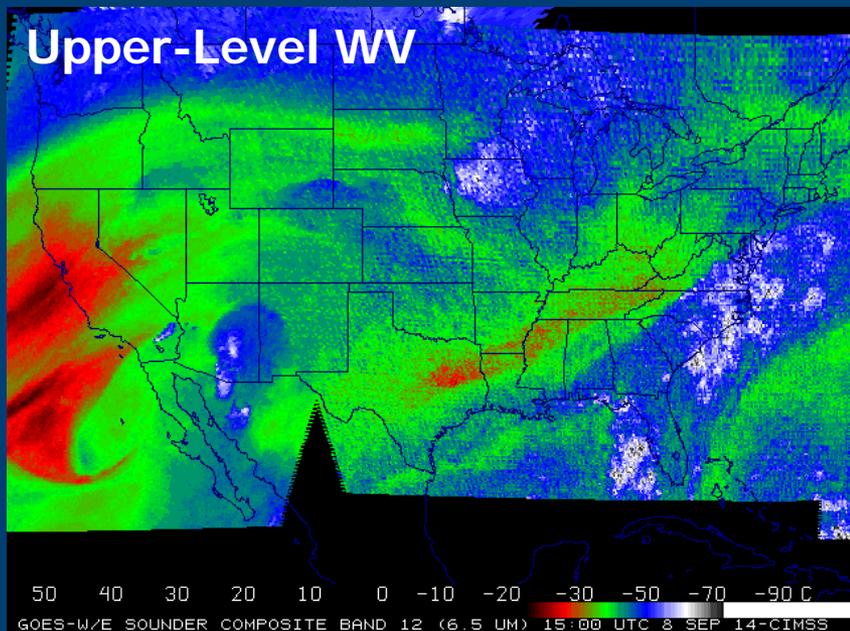


Central Region Evaluation of Multiple Water Vapor Channels

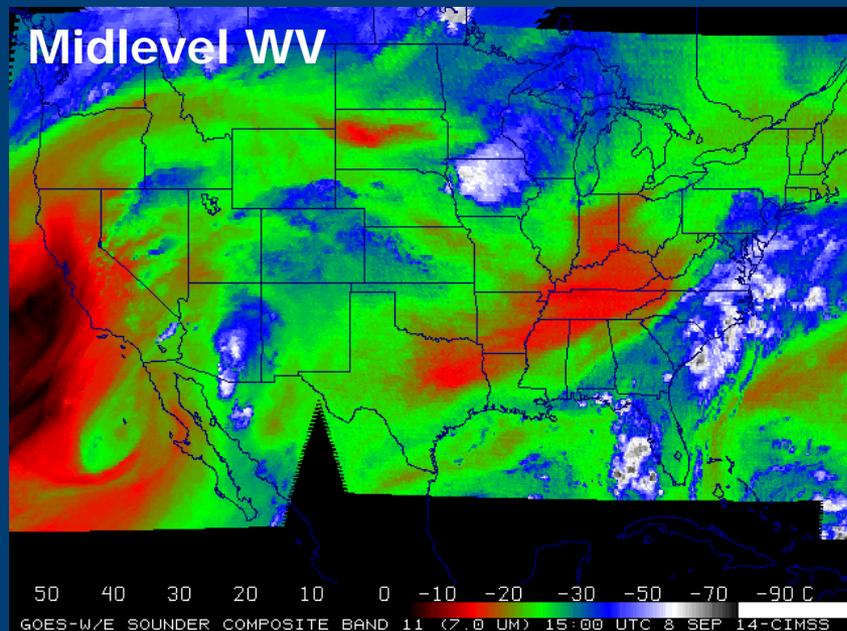
- NCEP Center and WFO focus on GOES-R future capability products.
- However, there is growing concern that NWS forecasters will not be ready for baseline products that they are going to receive.
- For example, NWS forecasters are not accustomed to analyzing multiple water vapor channels (i.e., Cloud and Moisture Imagery).
- Develop a display that incorporates the GOES Sounder and NSSL WRF Synthetic Forecast water vapor imagery...and have forecasters provide applications where multiple water vapor channels are useful to the OPG and Training Division.
- Myself and Central Region are currently planning on evaluating the usefulness of multiple water vapor channels to AWIPS-2 offices in November/December.

Central Region Evaluation of Multiple Water Vapor Channels

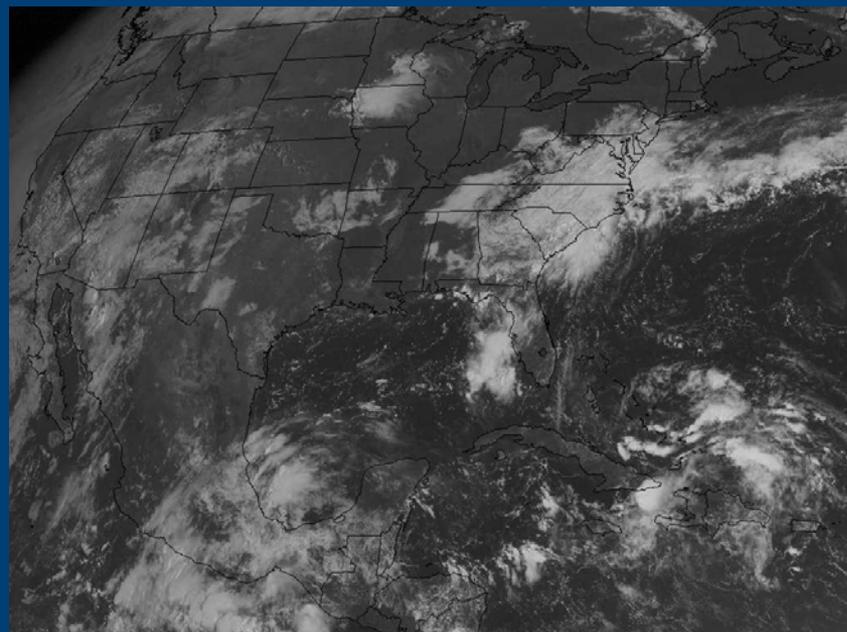
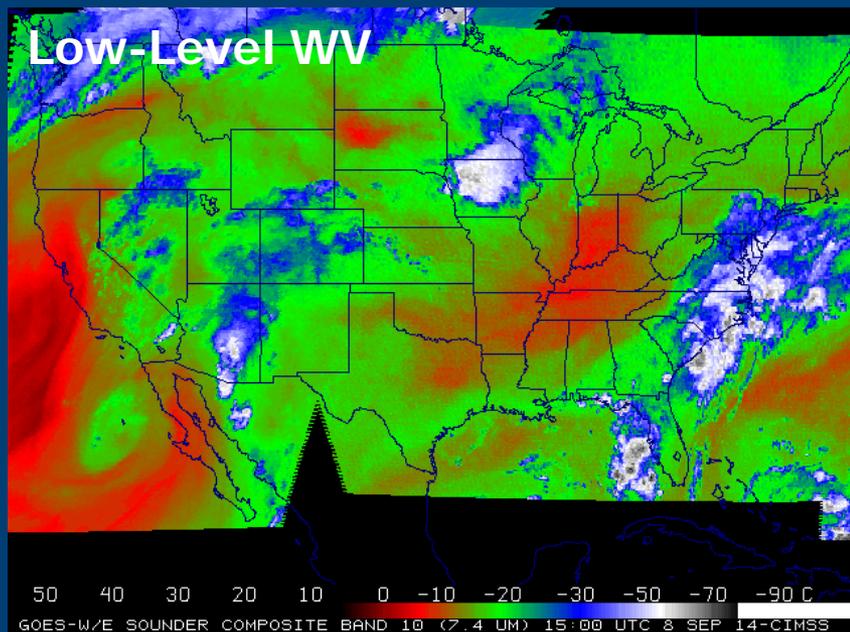
Upper-Level WV



Midlevel WV

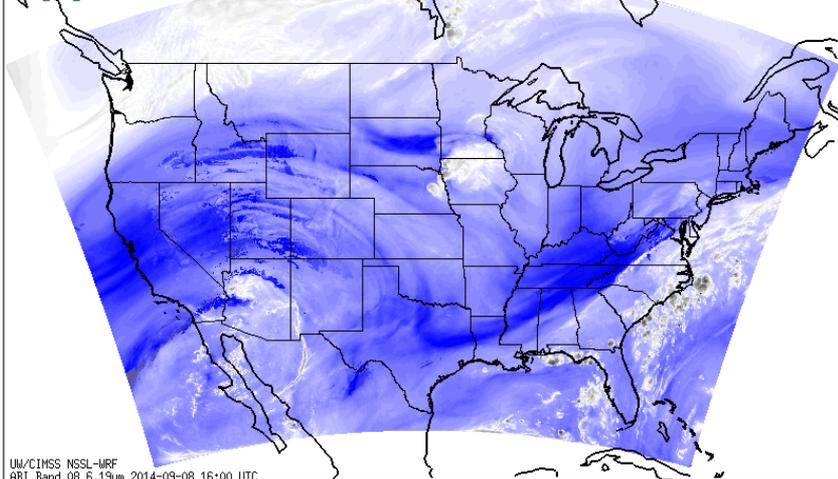


Low-Level WV

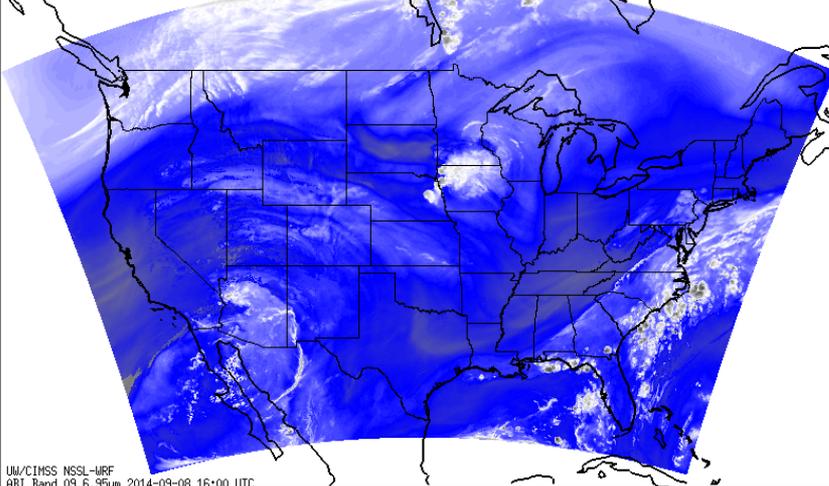


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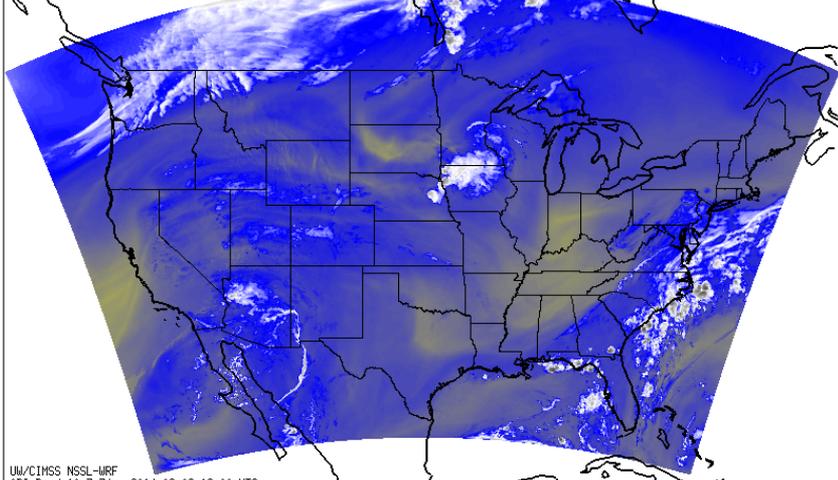
Upper-Level WV



Midlevel WV

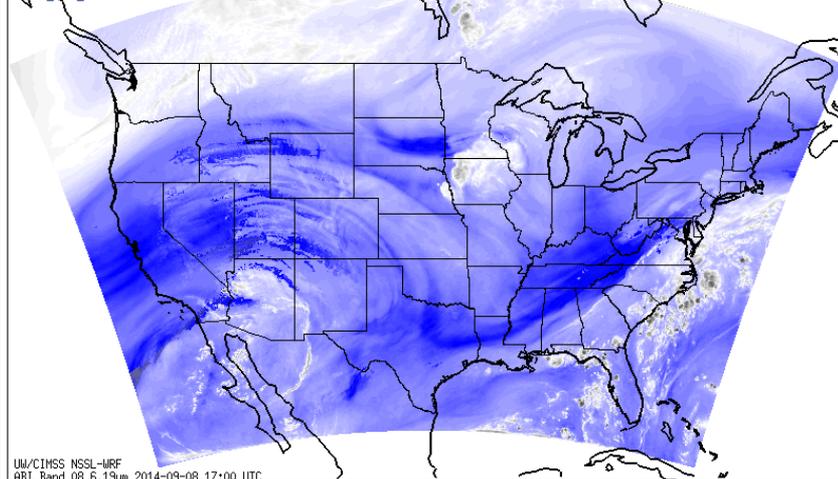


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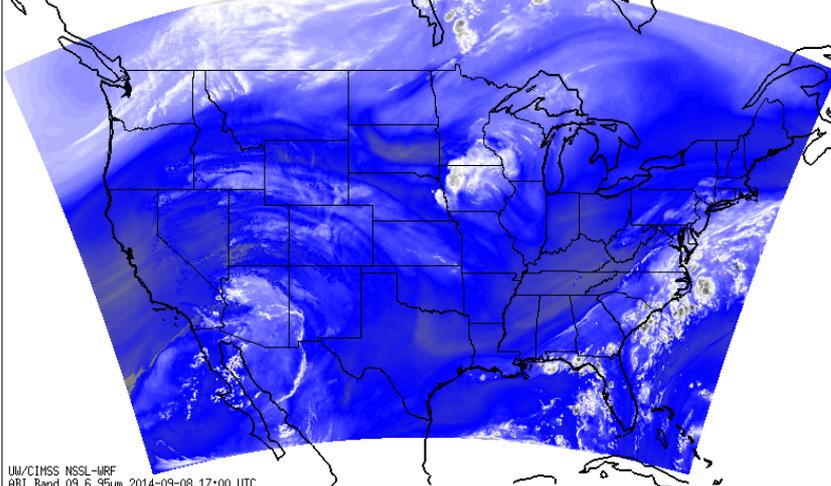


Central Region Evaluation of Multiple Water Vapor Channels

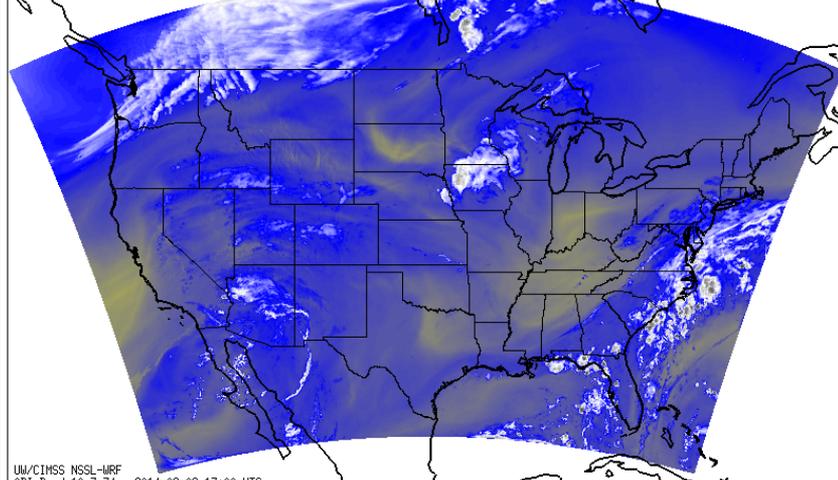
Upper-Level WV



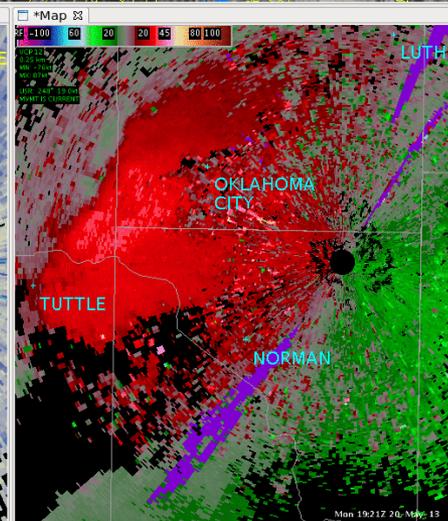
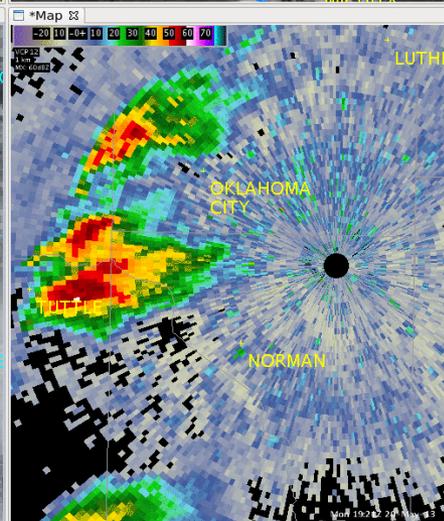
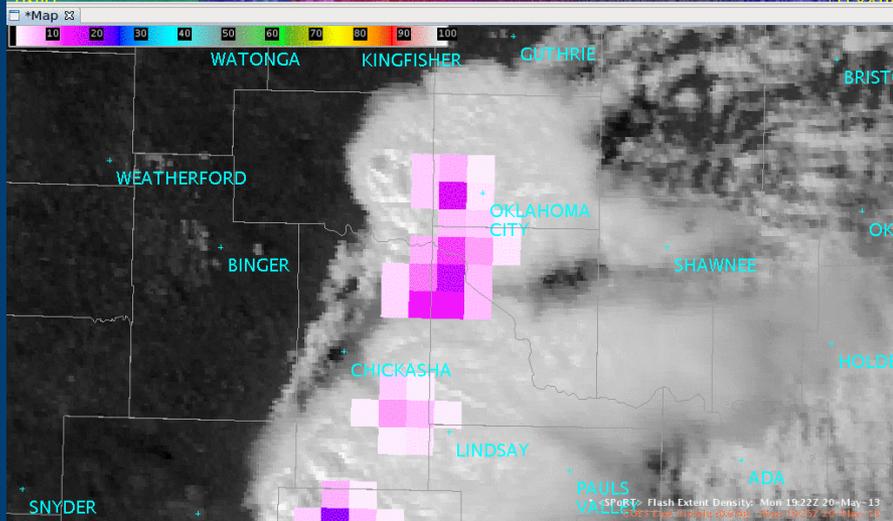
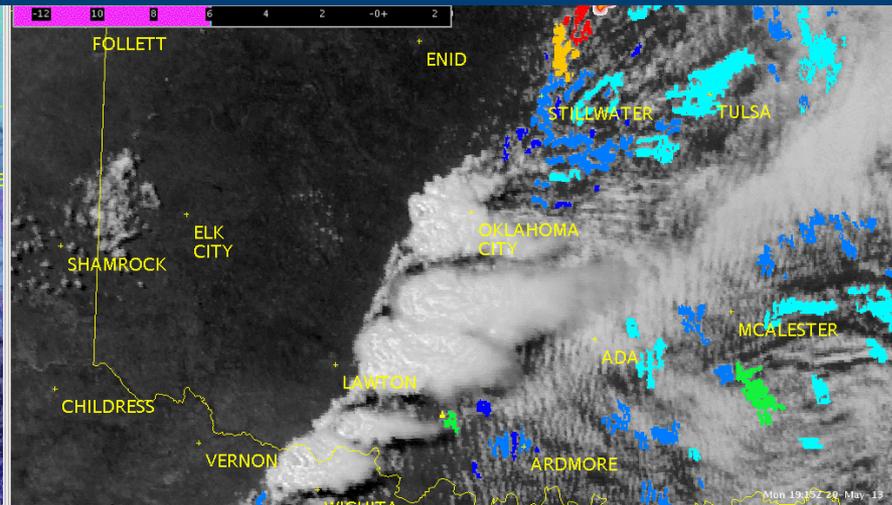
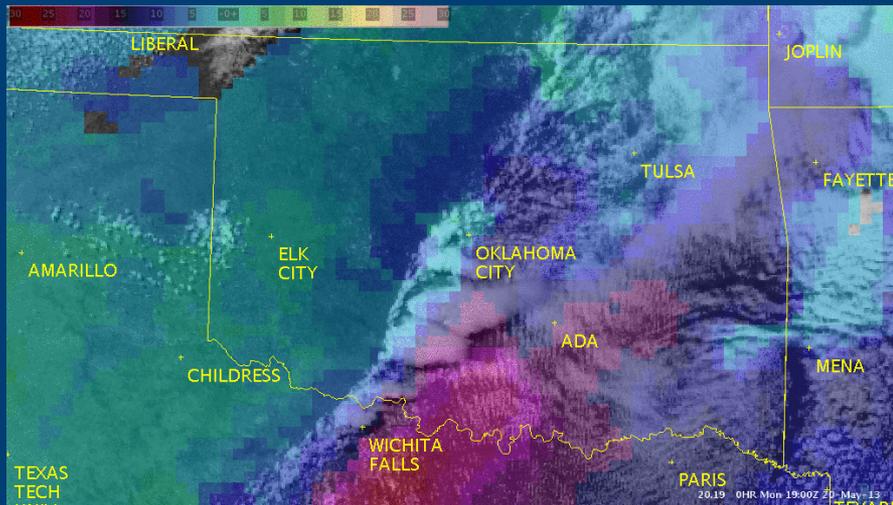
Midlevel WV



Low-Level WV



- **Title: Demonstration of a GOES-R Satellite Convective Toolkit to “Bridge the Gap” Between Severe Weather Watches and Warnings: An Example from the 20 May 2013 Moore, OK Tornado Outbreak**
- **Coordination between CIMSS, UAH, and NASA SPoRT (Mecikalski, Line, Petersen, Sieglaff, Stano, and Bedka)**
- **Four NWS representatives have given a “pre review” to the manuscript and it will be submitted to BAMS once their recommendations are included.**



- **21-26 September in Geneva, Switzerland**
- **Oral Presentations...**
- **Using GOES-R Demonstration Products to Bridge the Gap Between Severe Weather Watches and Warnings for the 20 May 2013 Moore, OK Tornado Outbreak**
- **Transitioning the GOES-R Fog and Low Stratus Products from Research To Operations**
- **Training Within the GOES-R Proving Ground Past, Present, and Future**

- **Planning OPG/GOES-R 1-min Imagery Evaluation**
- **Satellite Liaison representative to the SOO/DOH Satellite User Readiness Training Team**
- **Planning Central Region Multiple Water Vapor Imagery Evaluation**
- **Continue assisting WFOs with GOES-R Demonstration Products**

