A satellite with large solar panels is shown in space, with the Earth visible in the background. The satellite is positioned diagonally across the frame, with its solar panels extending towards the top right. The Earth is shown in the lower left, with the Americas visible. The background is a dark blue space filled with stars.

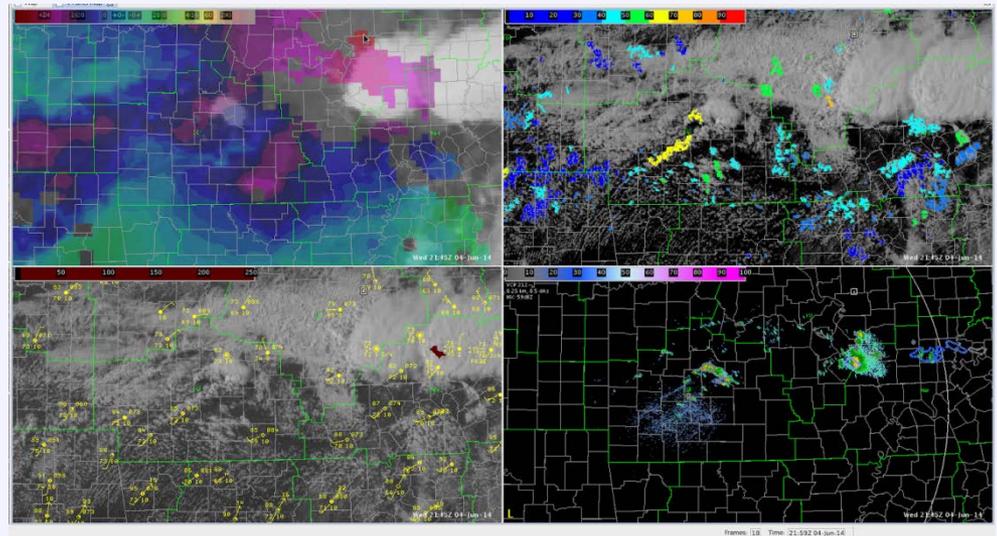
# **GOES-R Proving Ground Activities within the Storm Prediction Center and Hazardous Weather Testbed**

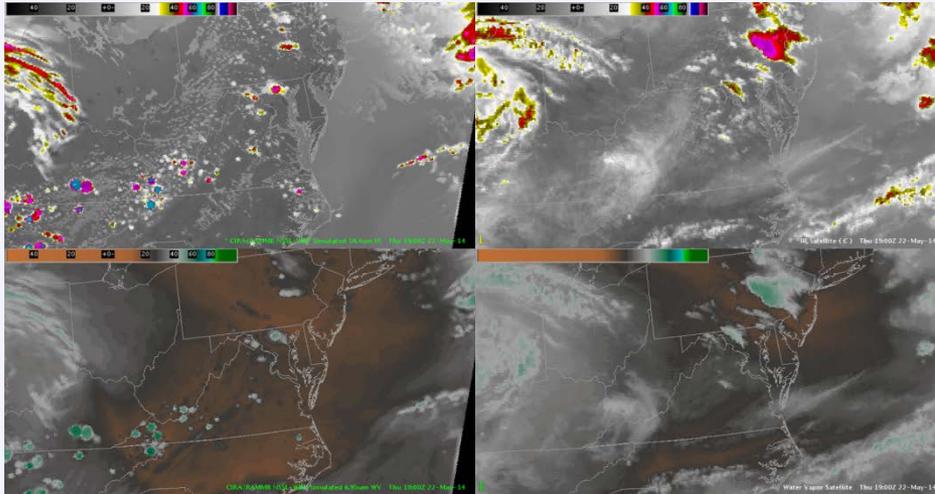
**- 7/7/14 PG All-Hands Update**

**William Line**

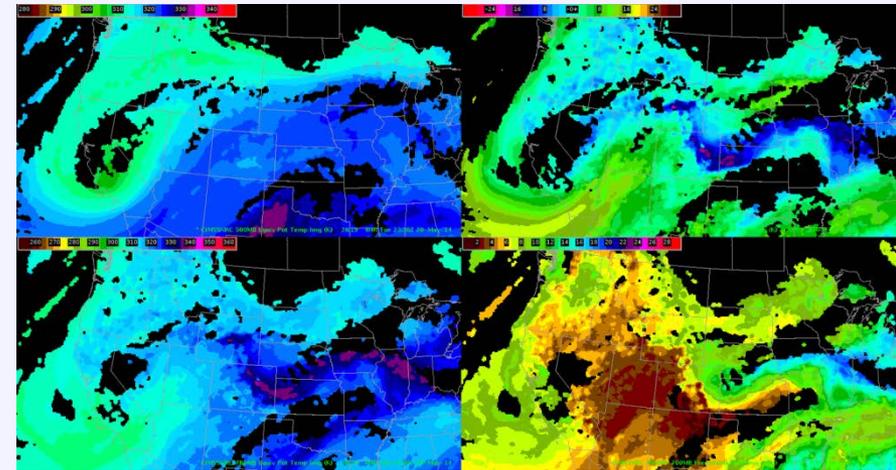
**University of Oklahoma - CIMMS and  
NOAA/NWS/Storm Prediction Center, Norman, OK  
[bill.line@noaa.gov](mailto:bill.line@noaa.gov)**

- 2014 HWT Spring Experiment - EWP
  - Weeks of May 5, 12, 19, June 2; AWIPS-II; 8 hr shifts
  - 3 NWS forecasters, 1 broadcast met. per week, and visiting scientists
  - Feedback: Daily surveys, blog posts (358), daily and weekly debriefs, weekly “Tales from the Testbed” webinar.
    - Blog: <http://www.goesrhwt.blogspot.com/>, Tales: <http://hwt.nssl.noaa.gov/ewp/>
  - Report to be completed by end of July
  - Training: Articulate Powerpoint for each product
  - 9 products and capabilities demonstrated
  - GOES-R product 4-panel display

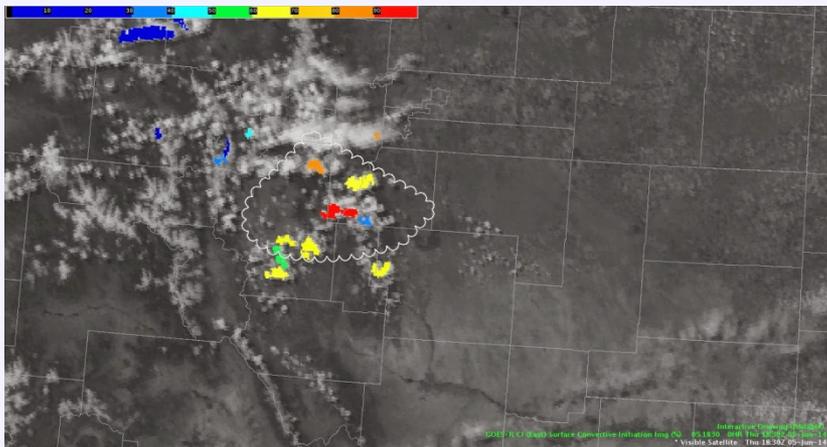




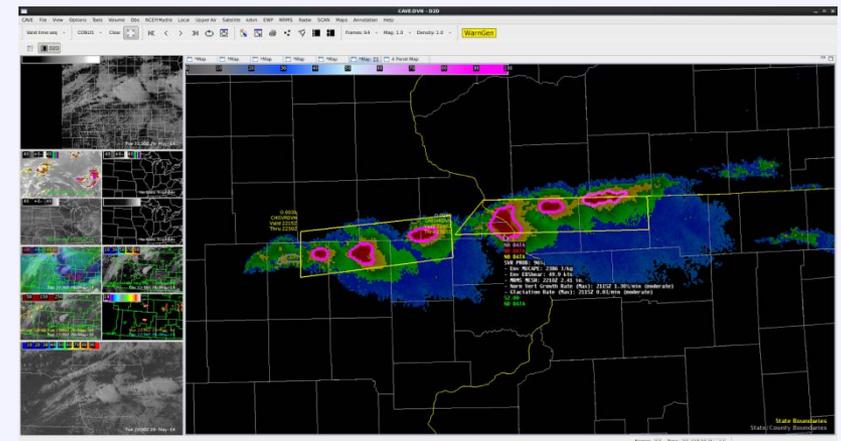
- Synthetic Satellite Imagery (CIRA)



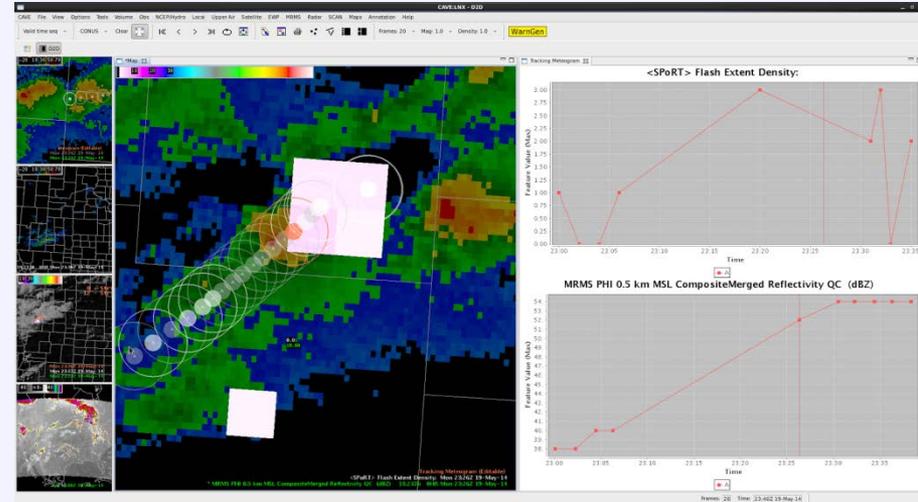
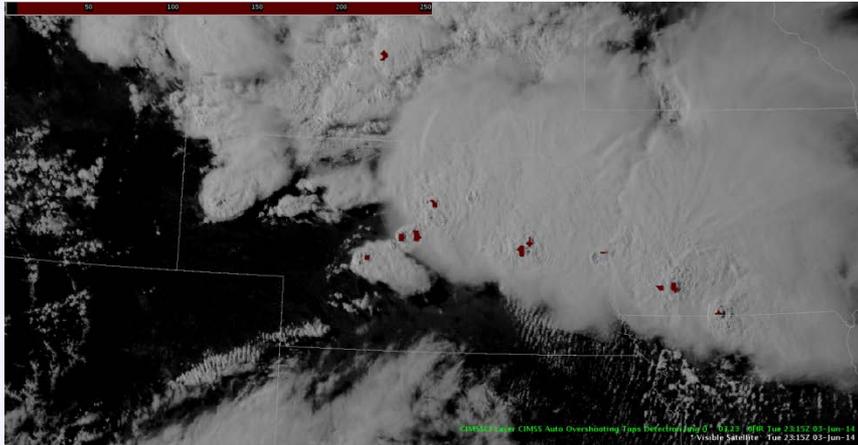
- NearCast System (CIMSS)



- GOES-R CI (SPoRT)

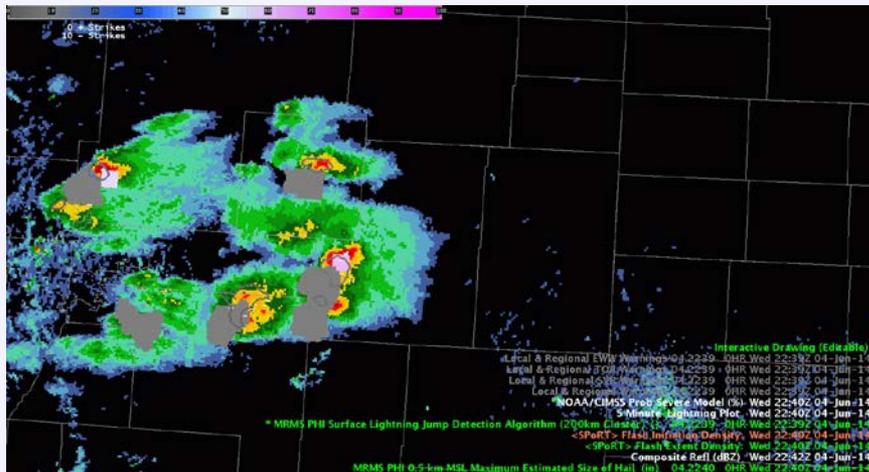


- Prob Severe Model (CIMSS)



- Overshooting Top Detection (CIMSS)

- Moving Trace (SPoRT)

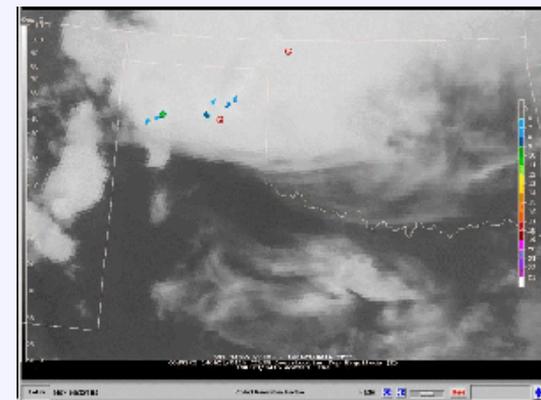


- PGLM Total Lightning (SPoRT)

- Lightning Jump Algorithm (NSSL/SPoRT)

- Blog posts with SPC examples/comments on Satellite Liaison Blog: <http://satelliteliaisonblog.wordpress.com/>
  - *“Post-storm initiation, the high-resolution data allowed for careful analysis of overshooting and collapsing tops, the character of the storm anvils (ie. health of the storm) and the identification of convectively generated outflows.”* - SPC forecaster
  - *“Using cloud character and trends to diagnose boundary locations and motion, and nowcast their potential for either CI or influences on upshear storms to interact therewith.”* – SPC Forecaster
  - *“Satellite imagery at 1-min temporal resolution needs to become the new standard for severe weather operations.”* – SPC Forecaster
- Comments from HWT
  - All EWP survey respondents agreed that the 1-minute imagery provided additional value compared to 5- or 15- minute imagery.
  - *“It allowed you to see so much more structure/trends. You could easily see areas of subsidence as cu were squashed or boundaries where things were being enhanced.”* – Forecaster in EWP
  - *“Around great lakes looking at advection fog, I wish we had 1 minute updates so we could see how much fog is spreading inland.”* – Forecaster in EWP
  - *“Cumulus clouds growing into thunderstorms on the 1 minute imagery definitely provided lead time to when storms might develop, which is great for timing watch issuance's before the storms become severe. This is not easily observed with the 5 minute or longer visible imagery.”* - EFP

- Product demonstrations continue
  - Products selected based on potential utility to SPC forecasters
  - In-person one-on-one forecaster training
  - Real-time product demonstrations, year-round
- Products currently being demonstrated in Ops
  - CTC, OTD, NearCast, SRSOR (when available)
  - Forecasters are slowly finding ways to incorporate into the SPC forecast process
  - See Satellite Liaison blog for examples
    - <http://satelliteliaisonblog.wordpress.com/2014/05/11/may-10-kansas-severe-and-cloud-top-cooling-product/>
    - <http://satelliteliaisonblog.wordpress.com/2014/06/23/overshooting-tops-with-evening-texas-severe-convection/>



- Other products will be introduced as seen fit
  - Hopefully getting AWIPS-II workstation soon
  - Polar imagery (combine with geo), NUCAPS, HRRR verification project, CI, FLS,, PGLM, LTF

# Questions/Comments?

