A satellite is shown in space, with its solar panels and various instruments visible. The Earth is in the background, showing the Americas. The satellite is positioned diagonally across the frame.

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

**- 9/8/14 PG All-Hands Update**

**William Line**

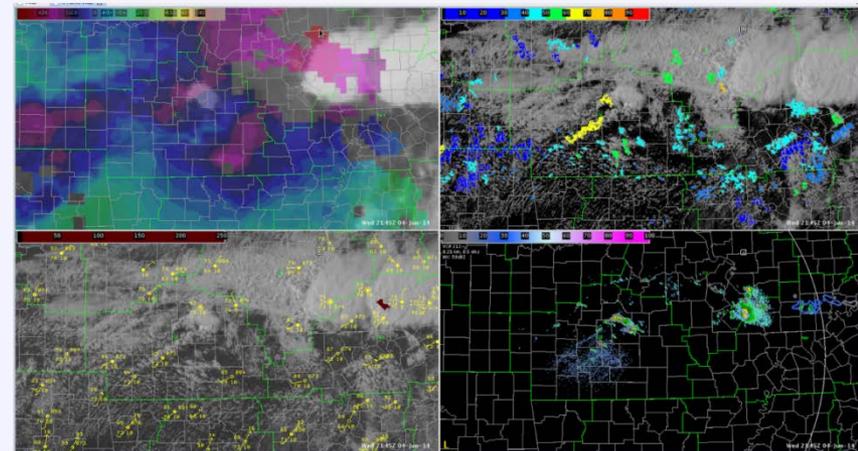
**University of Oklahoma - CIMMS and  
NOAA/NWS/Storm Prediction Center, Norman, OK  
[bill.line@noaa.gov](mailto:bill.line@noaa.gov)**

- 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/>
  - Training: Articulate Powerpoint for each product
- > 9 products and capabilities demonstrated:  
Synthetic Satellite Imagery, NearCast System, GOES-R CI, ProbSevere Model, OTD algorithm, PGLM total lightning, Total Lightning Tracking Tool, Lightning Jump algorithm, SRSOR

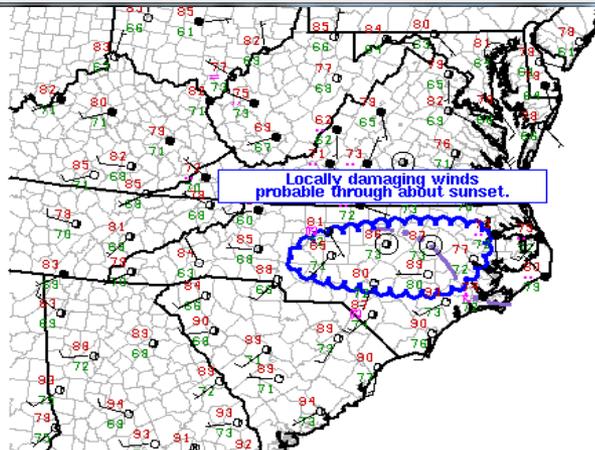
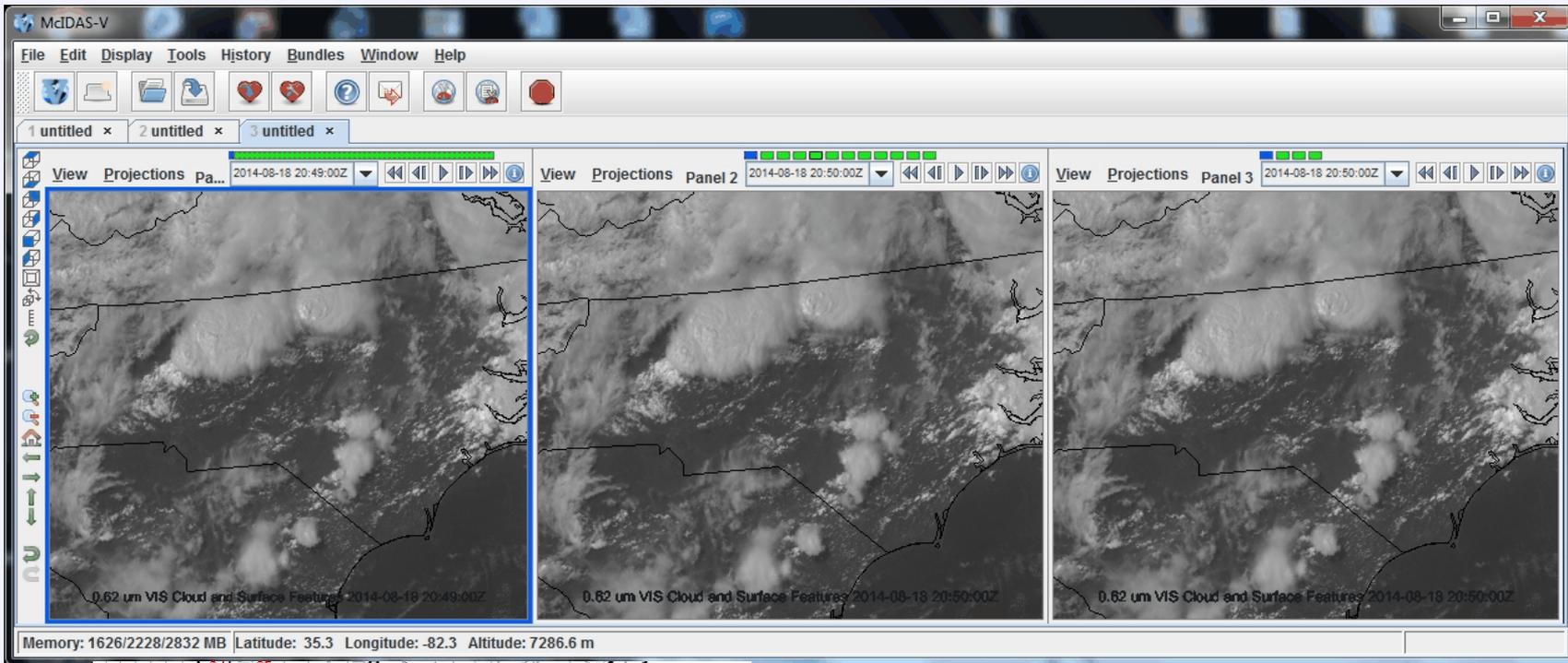
**Final Report currently  
under review**

Results to be presented at NWA and SLS 2014

GOES-R product 4-panel display



- 7 direct references in SPC text forecast products during May and August GOES-14 SRSOR periods
  - SPC forecasters consistently viewed the 1-min imagery in Operations, incorporating it into their decision-making
  - Allowed for easier analysis, identification and tracking of:
    - deepening and clumping of BL cu, vertical growth of cumulus convection, identification and tracking of boundaries, overshooting and collapsing storm tops, character of storm anvils, convectively generated outflow, gravity wave progression, visual assessment of storm-top divergence and flanking line development, diagnosis of near-storm environment through convective trends and cloud character,
    - All on time scales not otherwise available.
  - Over time, this imagery will allow forecasters to gain a better understanding of processes related to CI



SPC MCD #1576

UPSTREAM CONVECTION ACROSS PARTS OF THE PIEDMONT HAS APPEARED RELATIVELY MUSHY IN 1-MIN VISIBLE SATELLITE IMAGERY

- 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 them into the SPC forecast process
    - See Satellite Liaison blog for examples
      - These products provide information that enhances satellite imagery as non-obtrusive overlays
- AWIPS-II workstation on its way
- Polar imagery (combine with geo), HRRR verification project, CI, FLS, PGLM, Synthetic Imagery, NUCAPS
- Results to be presented at AMS 2015

