The NASA Short-term Prediction Research and Transition (SPoRT) Center

GOES-R Proving Ground Update

9 July, 2012

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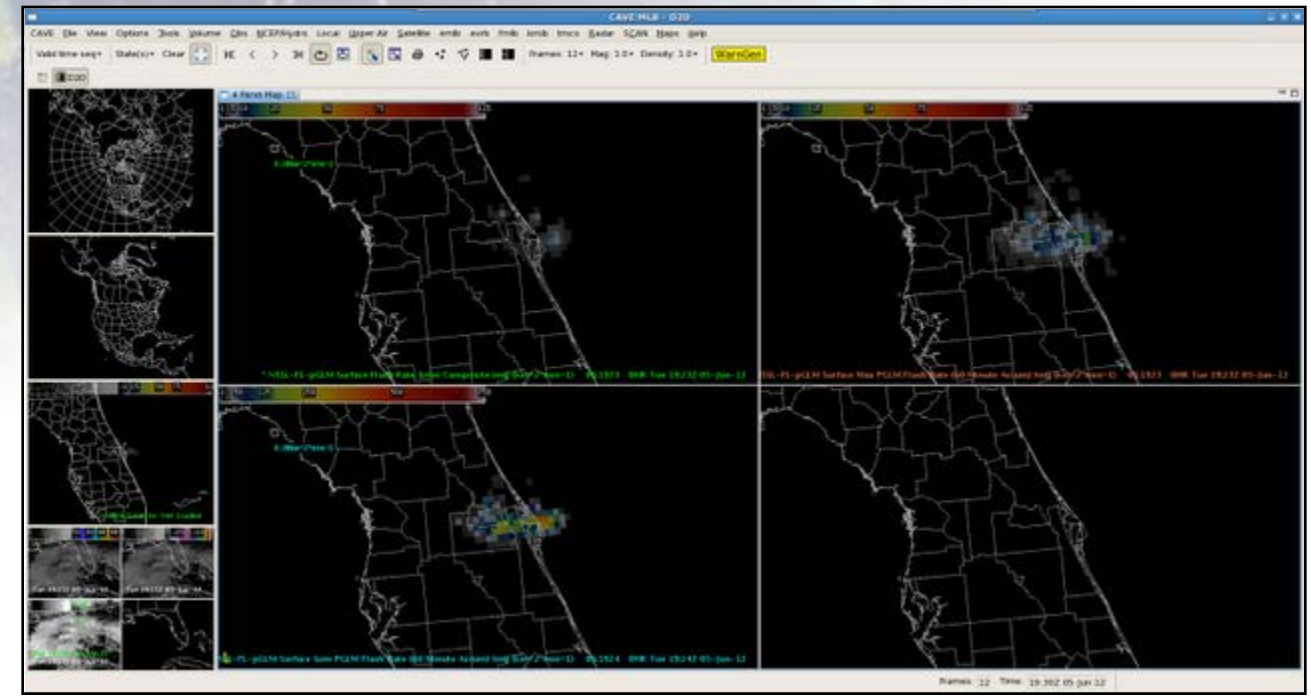
PGLM at the Spring Program

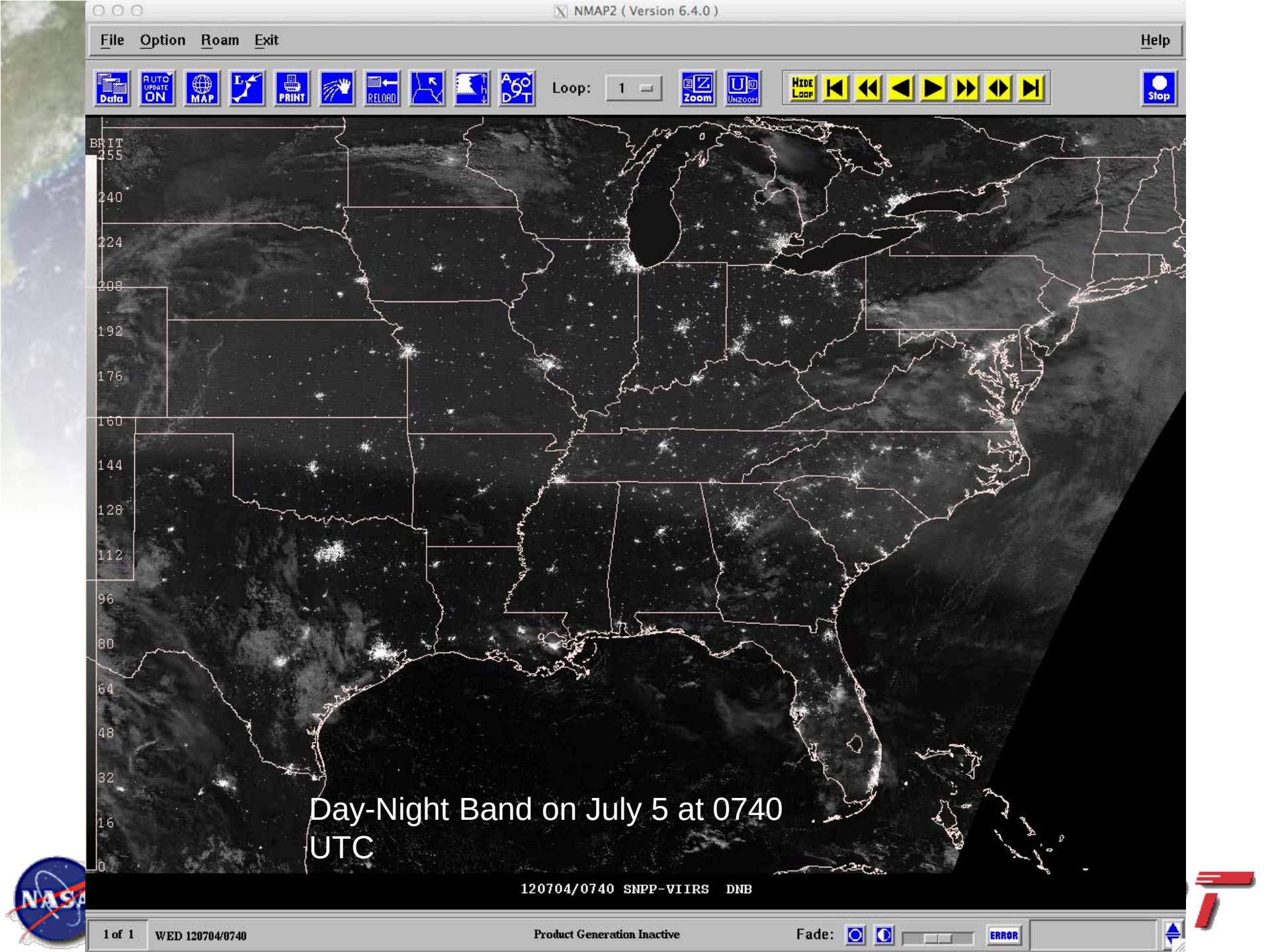


Sample imagery from the HWT's Spring Program from the Kennedy Space Center network

- 3rd year of use
- AWIPS II display
- Relatively quiet this year
- SPoRT's AWIPS II plug-in will address some feedback

VIIRS Channels

- SPoRT has obtained NRT access to VIIRS data and processed to make them available in McIDAS.
- Identifying collaborative NWS partners for the transition and evaluation of some products.
- Converting VIIRS data to N-AWIPS capable formats to support National Centers who have interest.
- Existing hybrid product to WFO partners will incorporate VIIRS along with MODIS (CONUS done, awaiting OCONUS data access)


NMAP2 (Version 6.4.0)
File Option Roam Exit Help
Data AUTO UPDATE ON MAP PRINT RELOAD A60 D3T Loop: 1 Zoom UnZoom HIDE Loop Stop
BRIT
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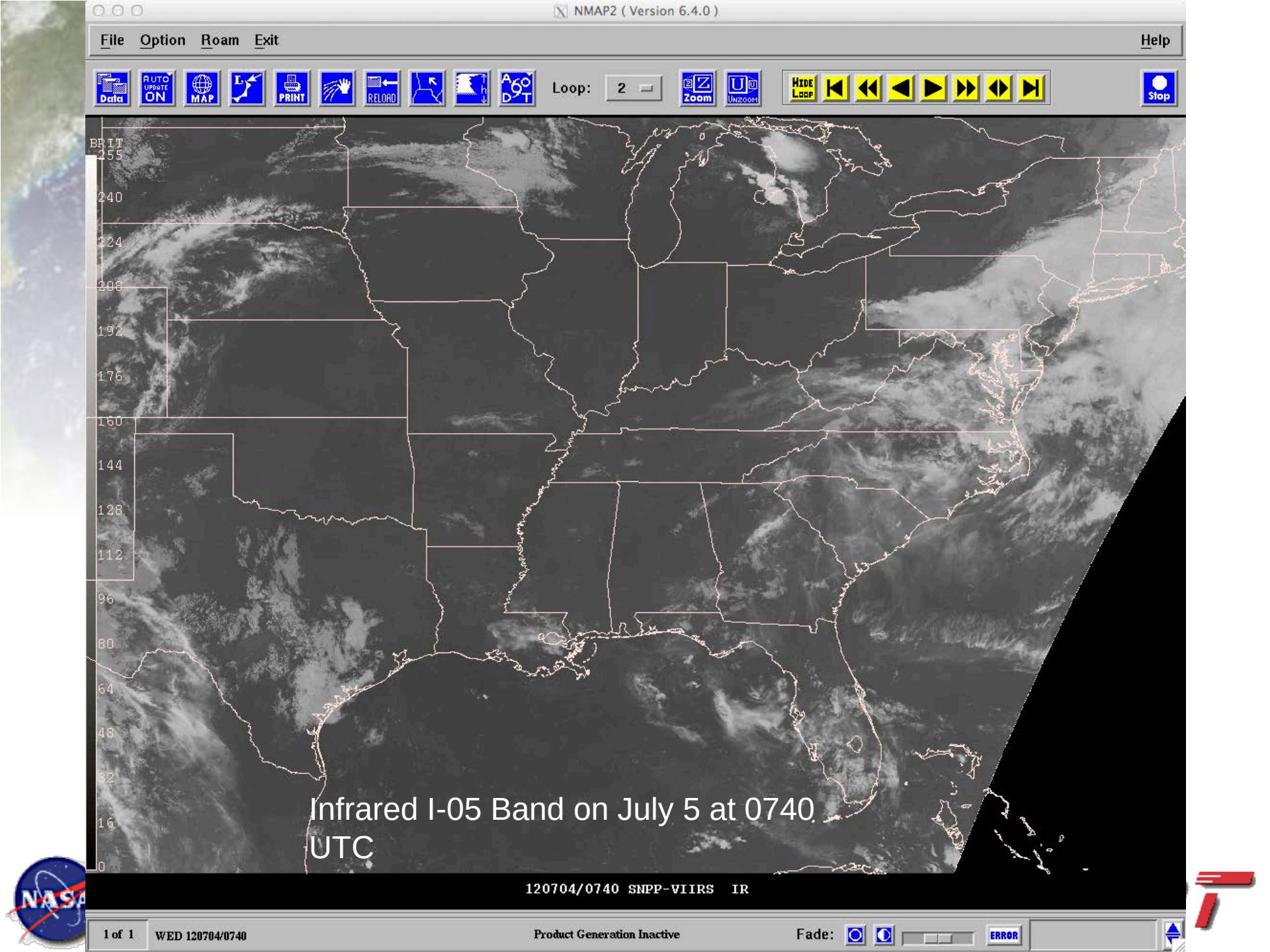
Day-Night Band on July 5 at 0740 UTC
120704/0740 SNPP-VIIRS DNB
1 of 1 WED 120704/0740 Product Generation Inactive Fade: ERROR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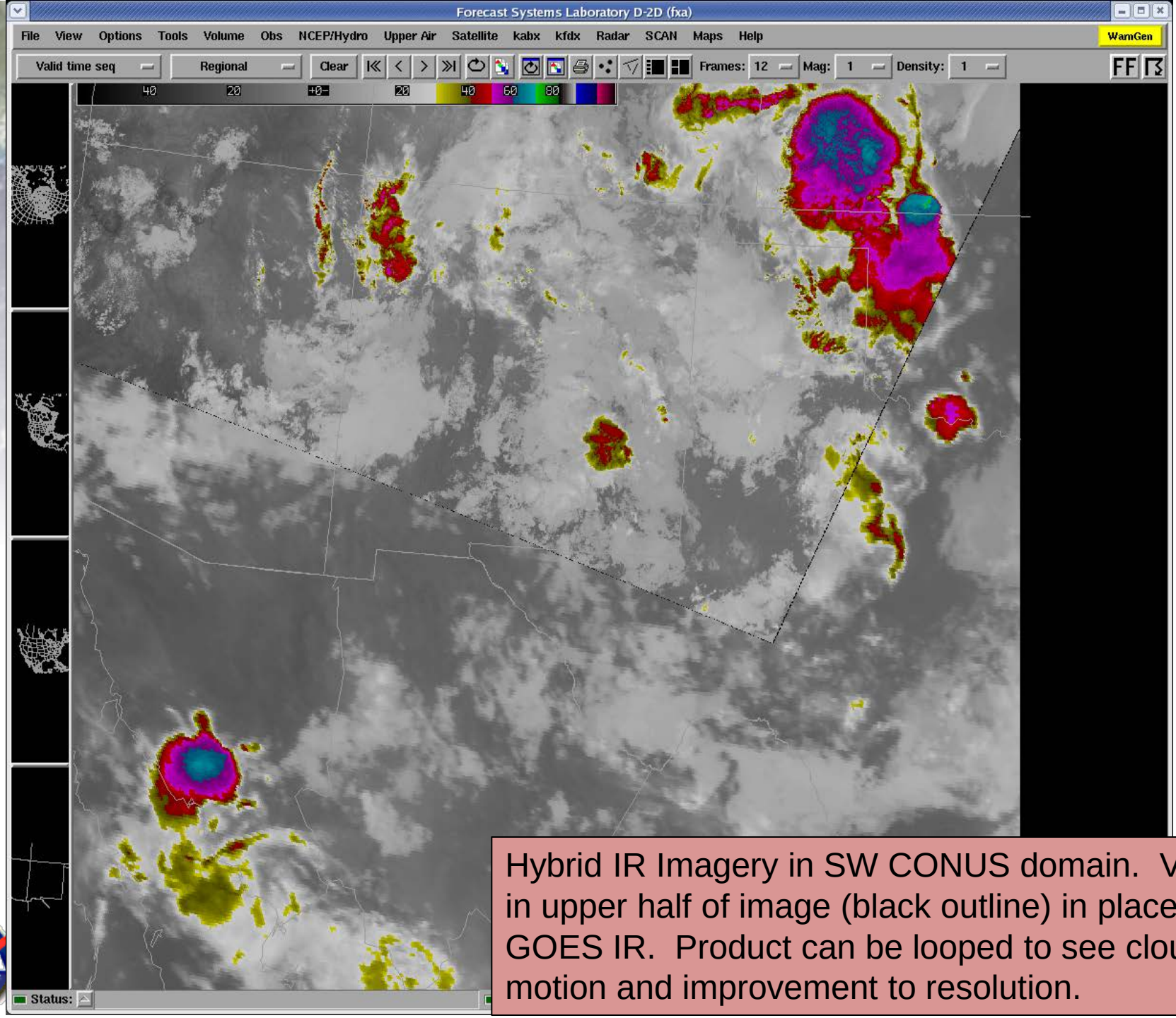
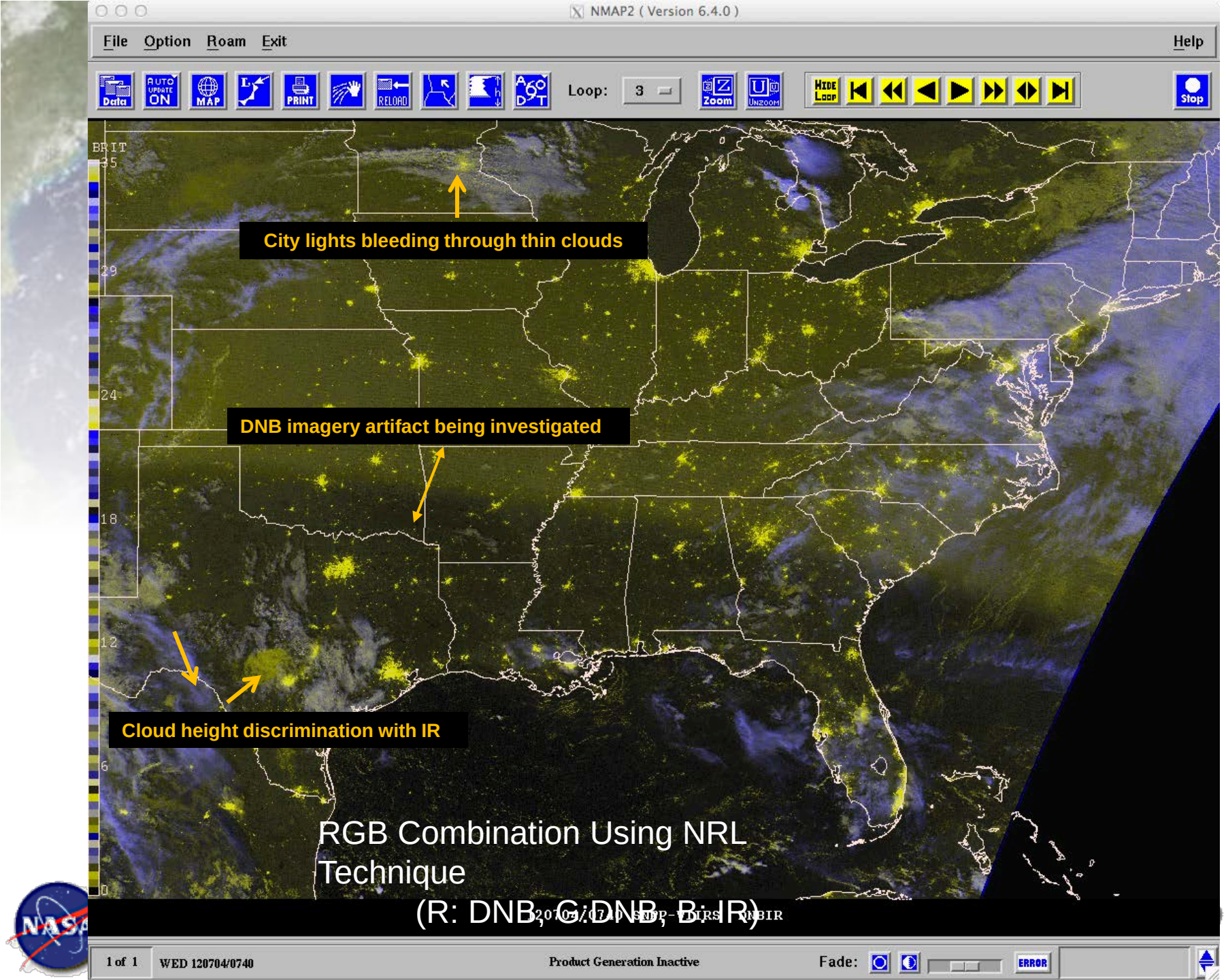
Infrared I-05 Band on July 5 at 0740 UTC
120704/0740 SNPP-VIIRS IR
1 of 1
WED 120704/0740
Product Generation Inactive
Fade:
ERROR



Hybrid IR Imagery in SW CONUS domain. VIIRS in upper half of image (black outline) in place of GOES IR. Product can be looped to see cloud motion and improvement to resolution.

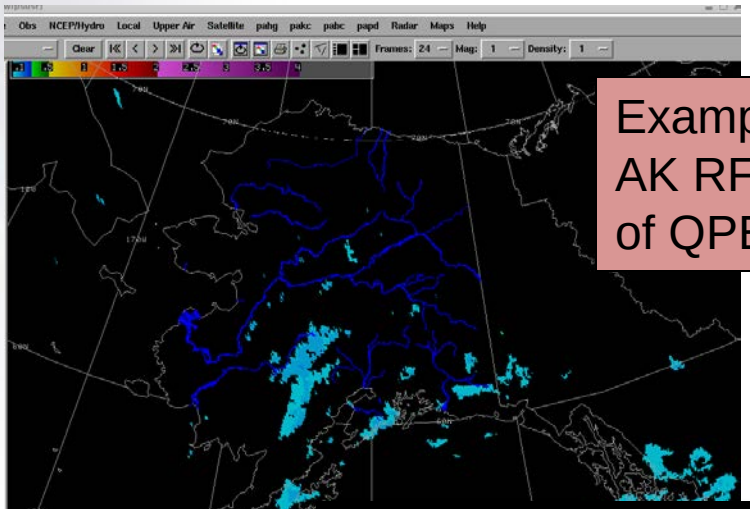
VIIRS RGB Applications

- In collaboration with NRL, adapting some of their NexSAT algorithms and techniques to produce RGB composites from the day-night band.
- Channels needed for standard RGB products have been made ready for processing via McIDAS. VIIRS RGBs for CONUS and OCONUS will be added to existing code for production and transition (OCONUS data access needed).

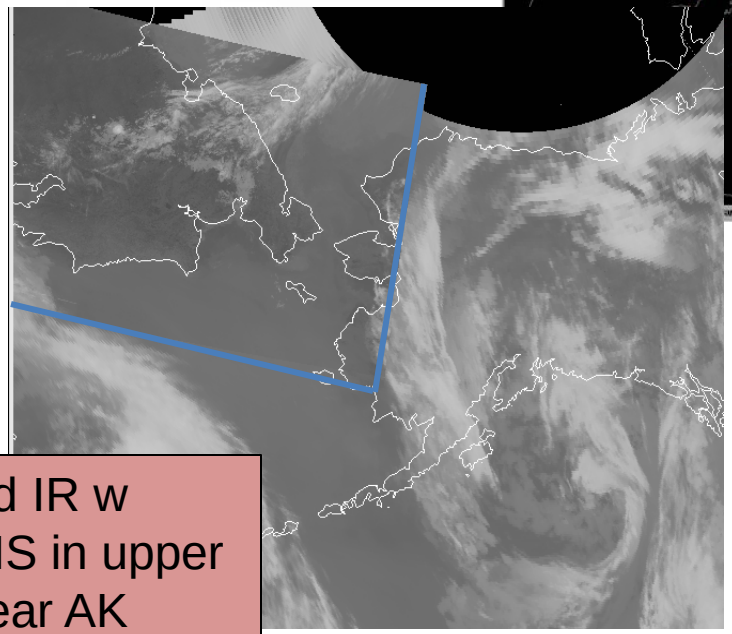

NMAP2 (Version 6.4.0)
File Option Roam Exit Help
Loop: 3
Stop
BRIT
City lights bleeding through thin clouds
DNB imagery artifact being investigated
Cloud height discrimination with IR
RGB Combination Using NRL Technique
(R: DNB, G:DNB, B: IR)
1 of 1
WED 120704/0740
Product Generation Inactive
Fade:
ERROR

OCONUS Activities

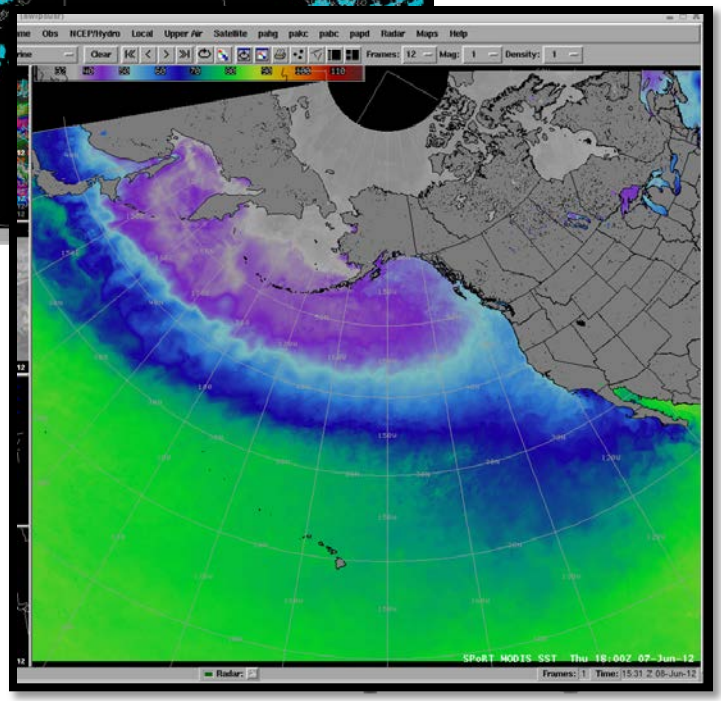
- Have established LDM feeds from SPoRT to AK and Pacific Regions
- AK RFC has SST and QPE
  - AK WFOs to follow
- Initial suite: SST, QPE, Hybrid Imagery, RGBs
- Could use LANCE data; prefer DB data from GINA for MODIS and VIIRS



Examples from AK RFC display of QPE and SST

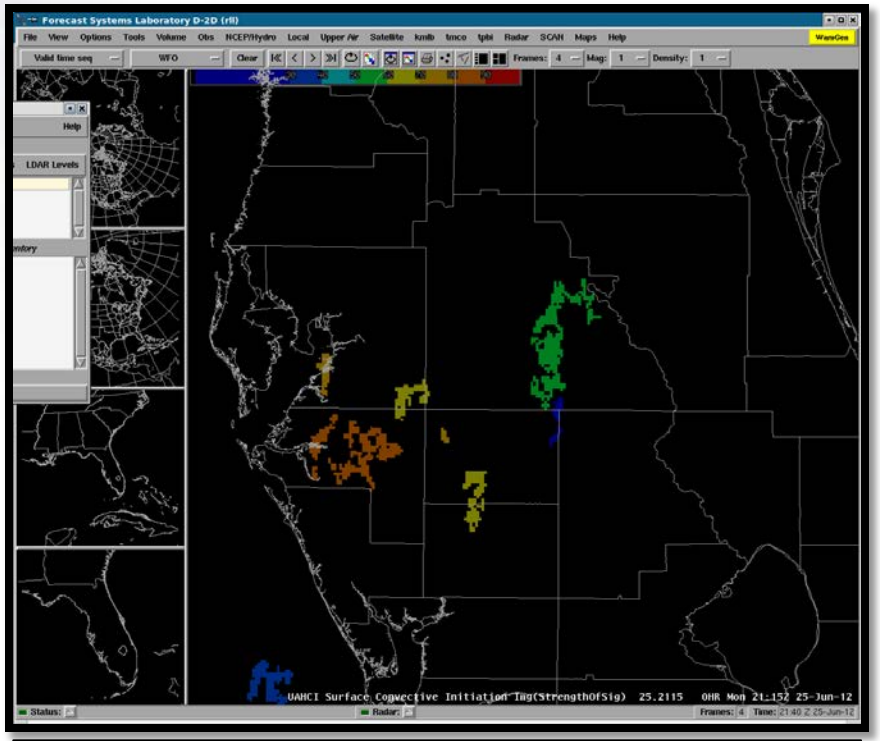


Hybrid IR w MODIS in upper left near AK



AWG Support

- QPE
  - Transition to OCONUS continues as mentioned already.
  - Future Plans to provide to National Centers in NAWIPS and evaluate
- UAHCI
  - Supporting use in AWIPS I/II
  - Training accessible for new version of product on SPoRT website
  - Evaluation with WFOs beginning July 10 (Huntsville, Melbourne, Miami, Albuquerque, possibly Charleston WV Pilot Project)
  - User feedback form online
  - Working on new format for quicker NAWIPS display
    - Transition to National Centers upon testing and completion



Examples from MLB's display of UAHCI product over FL

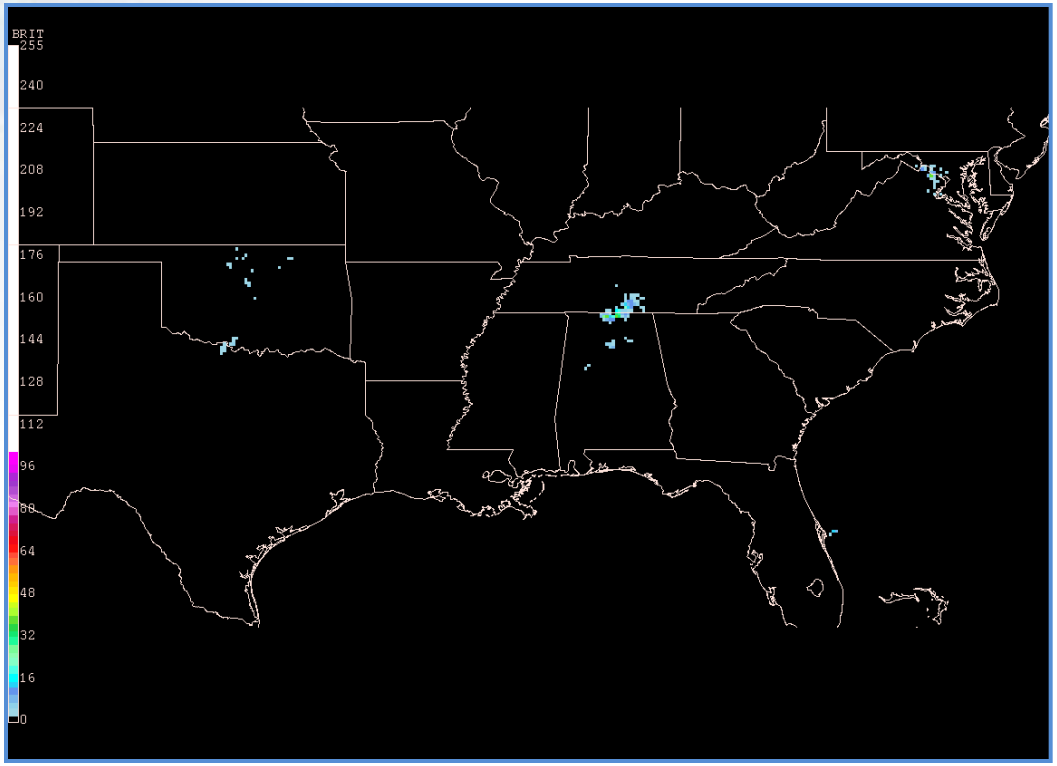
Visiting Scientist Program

Visiting Scientist Program

- Aviation Weather Center and Storm Prediction Center
- Training and methods for implementation
- Now in N-AWIPS and introduced to the AWC Summer Experiment
- Collaborating with respective satellite champions

Other Activities

- Discussing lightning safety evaluation with WFO Morristown, Tennessee



Near real-time pseudo-GLM mosaic in N-AWIPS from SPC

Visiting Scientist Program (cont.)

- RGB Collaborations at HPC & SAB
  - Michael Folmer visited SPoRT in early June and the following objectives were met:
    - Michael briefed SPoRT on ongoing activities.
    - SPoRT briefed Michael on ongoing AWIPS II development.
    - Michael and Andrew discussed several opportunities related to RGB efforts and applications.
      - SPoRT is supporting Michael in some research activities related to the "air mass" product, in addition to NASA students at Saint Louis University.
    - Michael spent a substantial amount of time with Kevin Fuell in the development of a new training module.
    - Andrew will visit Michael in the August-September time frame.
- RGB Applications for Tropical Analysis at NHC
  - Training efforts for Air Mass RGB by Fuell and Folmer (above) will also apply as module examines use of RGBs in extratropical transition of cyclones
  - Visit to NHC to discuss applications planned for end of July & Sept.
- AWIPS II and GOES-R3 Collaborations at SPoRT and CIRA
  - Deb Molenar visited SPoRT (March): Discussed AWIPS II plugins for CIRA products
  - SPoRT to visit CIRA (August/Sept): Continue discussions/work in AWIPS II, collaborate on product integration, joint support of products to partner WFOs