



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

GOES-R Proving Ground Update

13 November, 2012

Contributions from:

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General Outline SPoRT Status Report:

Total Lightning

- Accessing new networks

RGB Imagery

- Assessment of Night-time Microphysics w/ VIIRS

- DNB included.

- Quick Guide distribution

- Teletraining to BMX

JPSS -Transition of VIIRS imagery

- Users

- VIIRS and DNB Quick Guides

UAHCI Evaluation

- Major results

- User comment quotes

- Status of product and users

QPE Transition

- Status

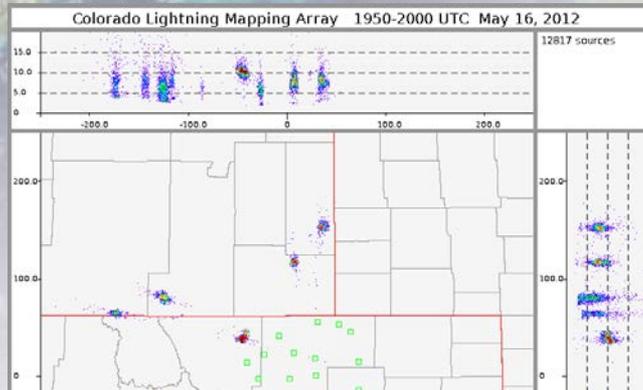
- Plans for Evaluation

AWIPS II

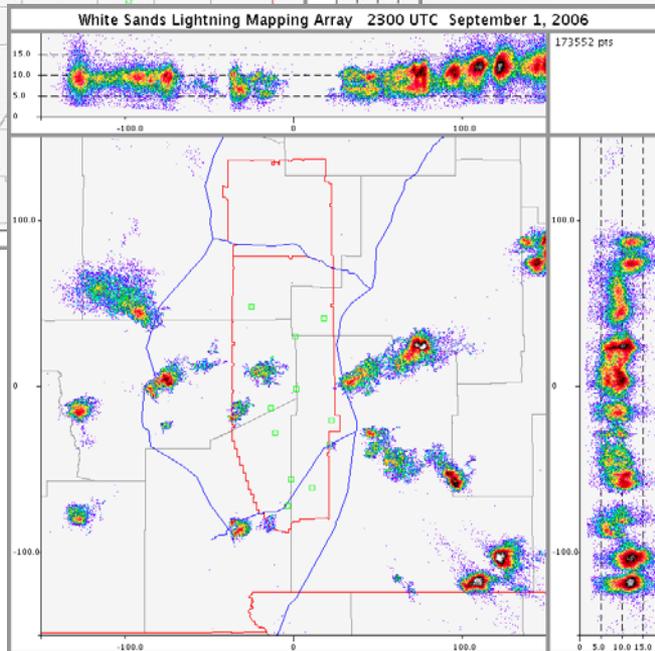
Visits to CIRA and WFOs



Expanding Total Lightning Access



North Colorado



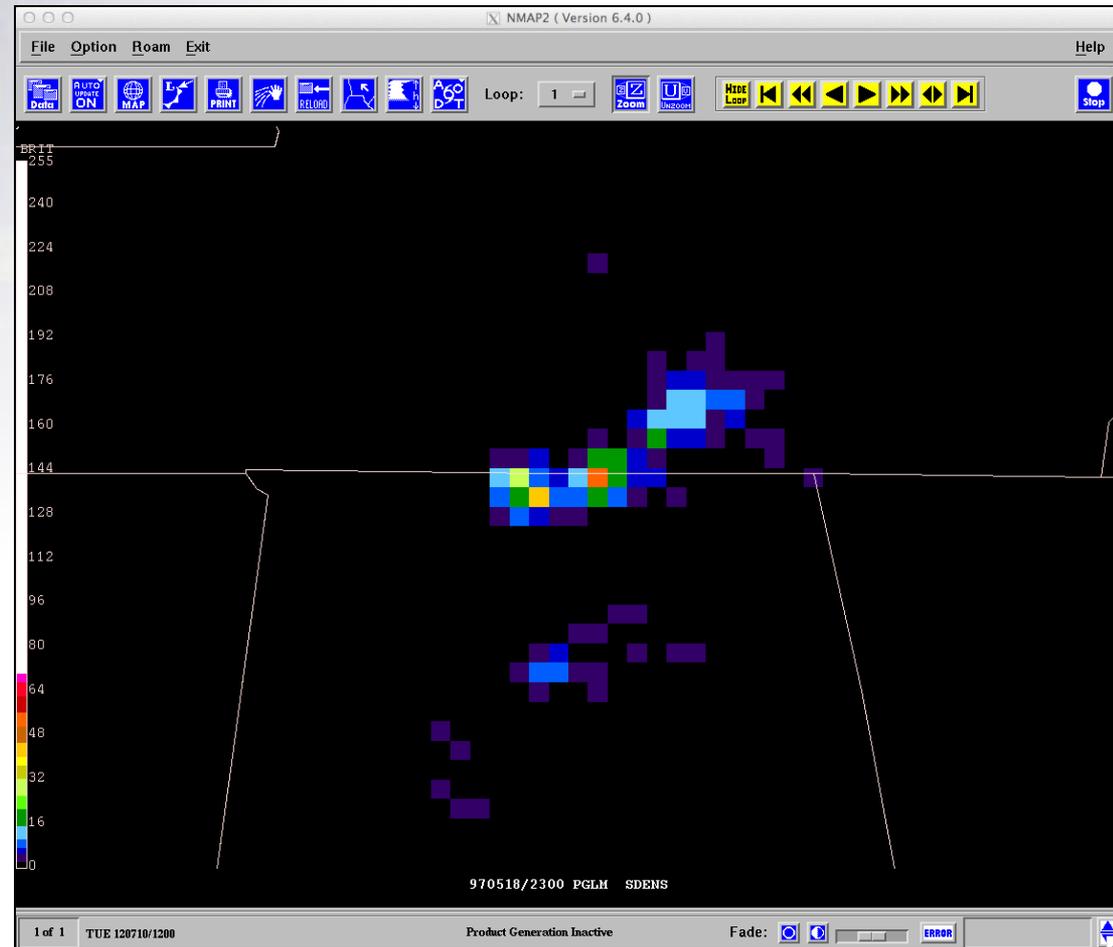
White Sands

- Visiting Scientist Proposal submitted
- Collaboration with CIRA and New Mexico Tech
- Aim to incorporate three networks for the pseudo-GLM
- SPoRT discussing options to obtain data from additional networks as well



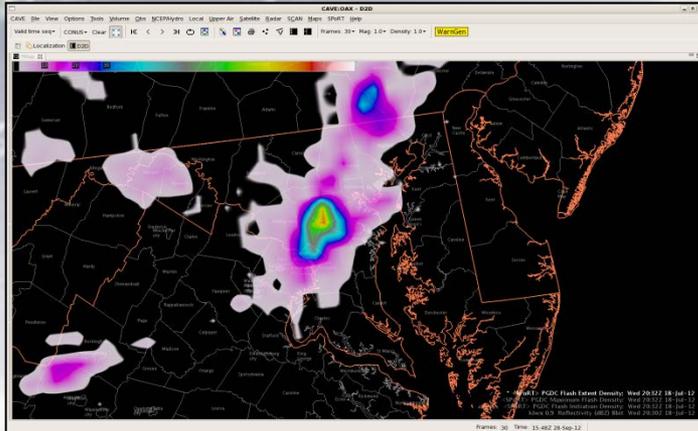
National Centers and Total Lightning

- Developing national center specific training for the pseudo-GLM
- Coordinating with satellite champions for specific events
- SPoRT scripting technical information

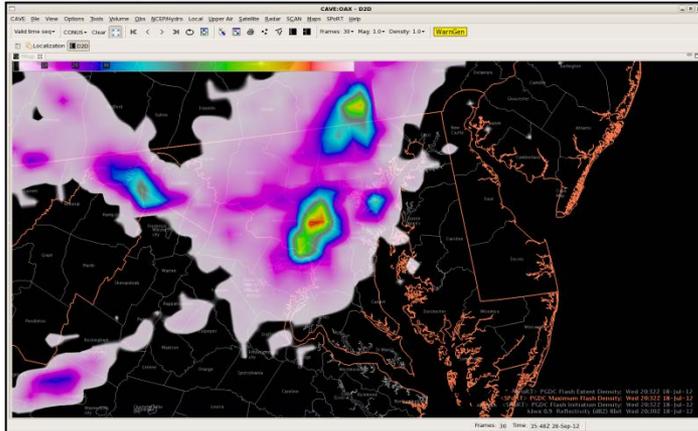
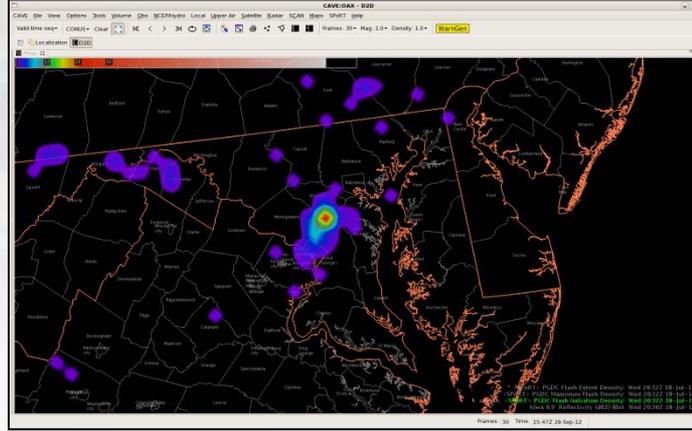


Total Lightning and AWIPS II

PGLM Flash Extent (DCLMA)



PGLM Flash Initiation (DCLMA)



PGLM 30 min Max Density (DCLMA)

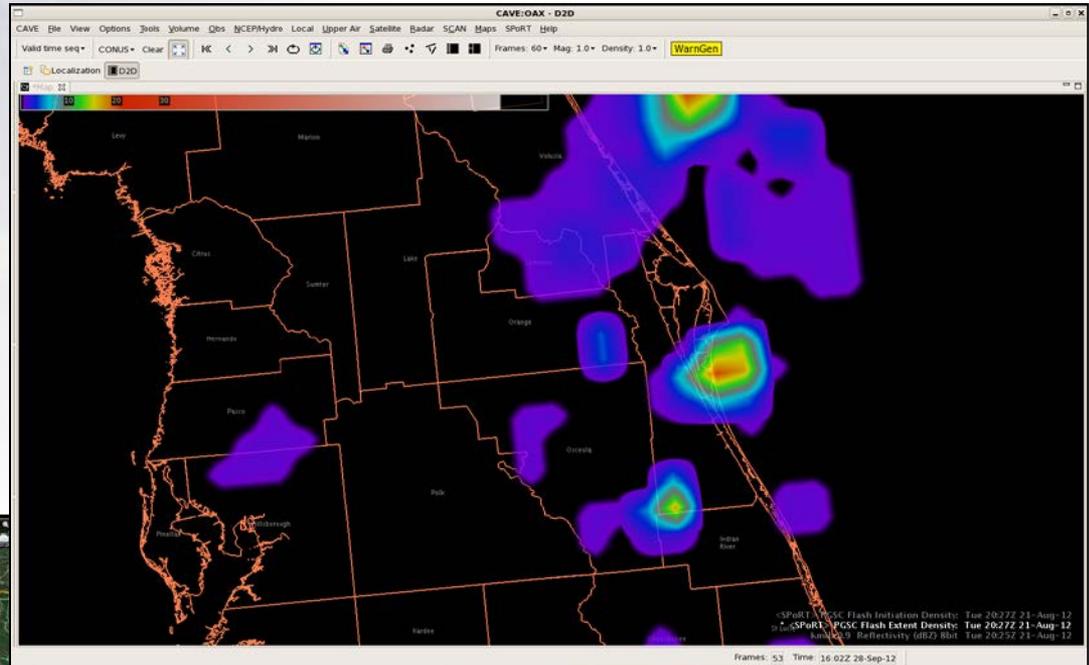
Corresponding Radar Reflectivity

- Plug-in working very well for all networks
- Trending tool fully functional
- Awaiting go-ahead from WFO partners to implement



WFO Evaluations

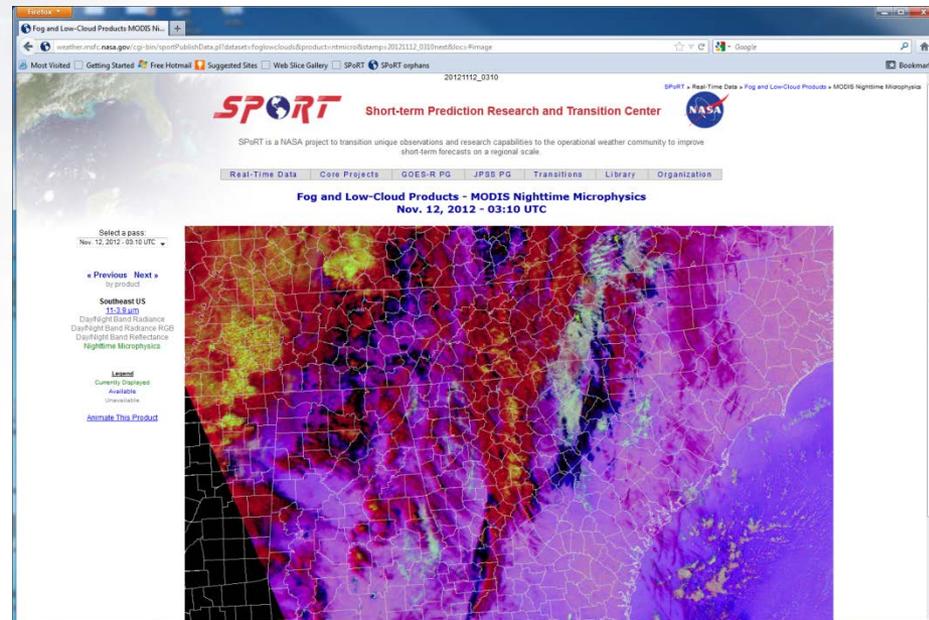
- Aiming for several spring evaluations
- Discussing activities with WFOs Albuquerque, Melbourne, and Morristown
- Visited Chattanooga / Hamilton County EMA with WFO Morristown
 - Lightning safety



RGB Imagery

Night-time Micro. Evaluation

- Via web display (HUN, RAH, also OHX, MRX, BMX)
- Visits to HUN morning discussions
 - Interpretation very new
 - See benefit of greater cloud information over standard 11-3.9 imagery
- BMX teletraining at their refresher meeting
- Quick Guide



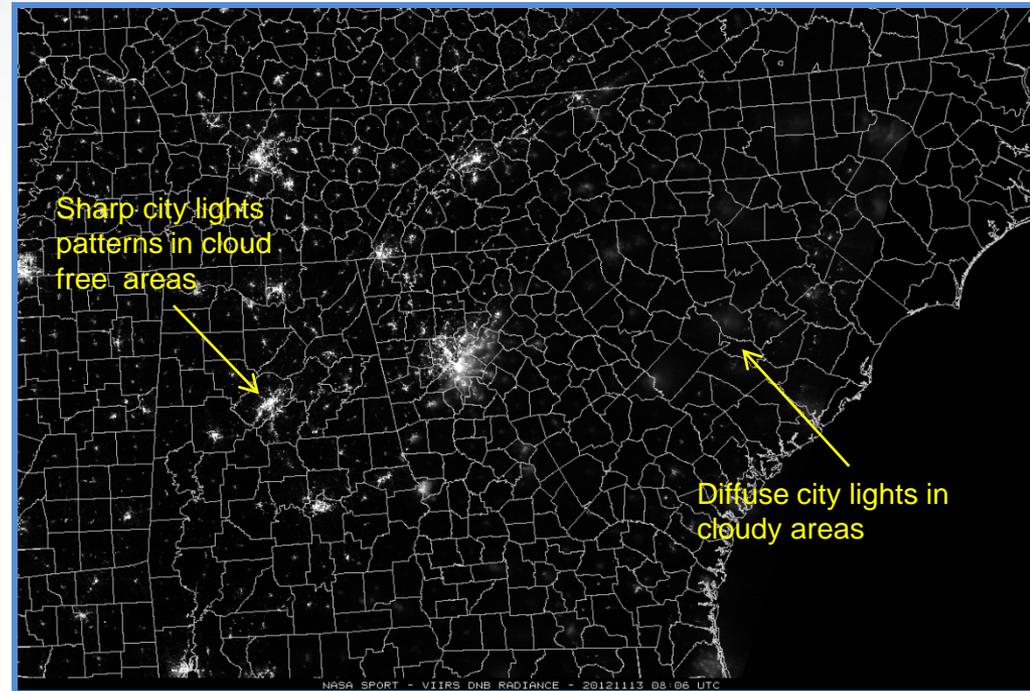
JPSS Proving Ground

WFO Users

- AWIPS I/D2d: ABQ, RAH, TFX, Hybrid-users
 - RGB Imagery and DNB
 - Hybrid Imagery (11, 3.9, wv, vis) for Southern Region East and West domains (~7 WFOs)
- Night-time Microphysics RGB and DNB included on webpage for Southeast U.S.

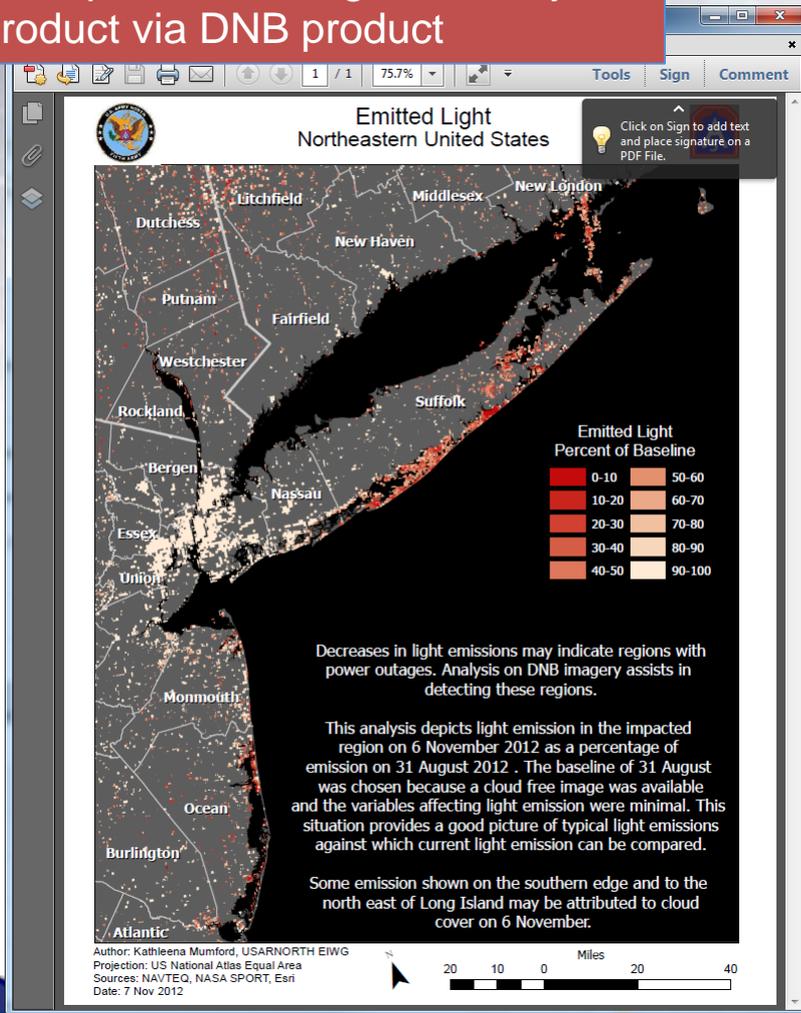
Visits to WFOs – training on VIIRS basics, Quick Guides for DNB and Instrument Capabilities

VIIRS Day-Night Band Radiance Product in SE CONUS area for use in Fog/Low Cloud analysis with RGB imagery



JPSS Proving Ground

Example of resulting U.S. Army product via DNB product



National Center Users:

- Suite of Suomi NPP products developed and disseminated (for **NAWIPS** and on ftp site as **KMLs**) to OPC/HPC to support Hurricane Sandy
 - VIIRS/CrIS Air Mass RGB, VIIRS DNB and RGBs

Disaster Support:

- VIIRS DNB to USGS Hazard Data Distribution System (HDDS). FEMA and others used data as well
- Tiled web service for VIIRS DNB (Reflectance and “blackout” product) for broad use (mobile devices)
- U.S. Army using data for their own Night-time Lights analysis (see right) to monitor power loss / restoration
- Acknowledgements made to all regarding UW/CIMSS as data source and CIRA/Steve Miller technical expertise in product development/generation

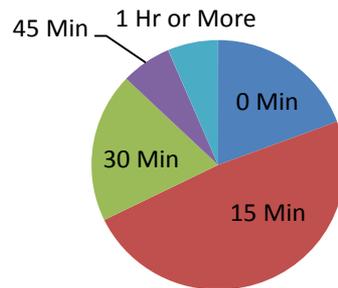


UAHCI Evaluation Results

Report drafted and to be sent to participants for their review. Then post to SPoRT Evaluation webpage.

- 31 surveys over almost 5 wks

Average Lead Time of Initial 35 dBZ echo



Product Status

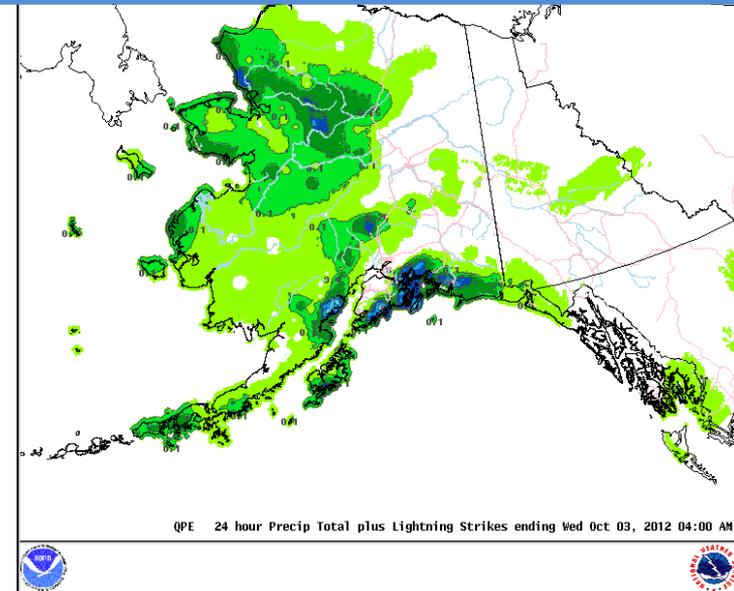
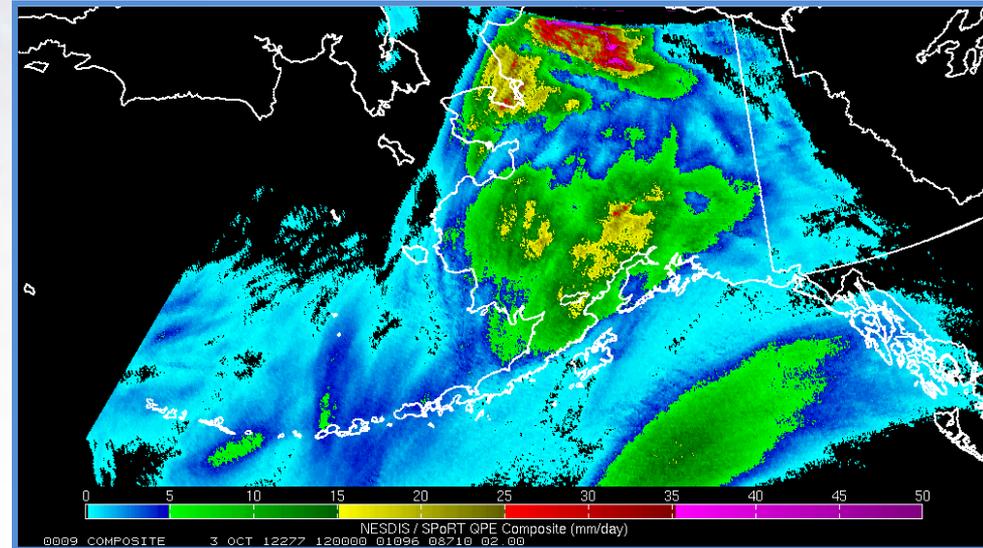
- Working on GOES-W product
- Could have a E/W merged product (need better hardware for low latency operations)
- Possible subdomain for HI
- Users: MLB, MFL, ABQ (HUN on A2), AWC, SPC, Folmer ingesting for Spring Evaluation w/ Nat. Centers, CWSU Atlanta via web



Assisting AWG – NESDIS QPE

AK RFC requested a 1- and 24-hr product (see right).

- SPoRT created initial product for comparison to RFC product
- Bob K. to operationally produce multi-hour products
- Call with Bob, West Coast WFOs, AK RFC regarding products and Evaluation during atmos. River season: ~Nov 19 or so



AWIPS II

Experimental Products Development Team (EPDT, includes PG Partners)

- Workshop delayed until Feb 2013
- Had telecon on first workshop training topic
 - Install and configuration of ADE (Nov 6)
 - Next call: AWIPS II architecture, intro to plugin development
 - Plan to work toward end-to-end plugin development with EPDT team
- SPoRT/EPDT will facilitate GOES-R Partners participating to help the NWS develop a software governance plan that is conducive to the work done by the GOES-R Proving Ground Partners.



Visits to CIRA and WFOs

CIRA Visit

- 3 SPoRT members
- Met CIRA team and discussed breadth of PG activities from both.
- Discussed coordination of products and AWIPS II

WFO visits: Cheyenne, Boulder

- Ed Szoke took Kevin F. to visit CYS and then Gary J. and Matt S. to visit BOU
- Helped SPoRT to better understand CIRA products, users, evaluations.
- Planning with CIRA to form a partnership with these WFOs and TFX and ABQ to evaluate PG products related to common Front Range / Western forecast issues
 - Kevin F. visited Great Falls (TFX) at the end of trip to CIRA
 - Examples: There are multiple Dust and Snow-Cloud RGBs. Also provide total lightning support and expose forecasters to future GLM capabilities

