



GOES-R Proving Ground CIRA / RAMMB Progress Report

***PG All-Hands Meeting
13 November 2012***



Outline

- **SPoRT visit to CIRA**
- **Selected User Interactions**
- **Selected Product Examples**
- **Systems Report**
- **Conferences and Meetings**



SPoRT Team at CIRA

GOES-R Visiting Science Program

Oct 30 – Nov 1st

Selected Agenda Items:

- **CIRA and SPoRT Proving Ground activities**
- **SPoRT-CIRA collaboration :
Front Range/Western US PG Partner WFOs**
- **Integration of SPoRT datasets into CIRA products**
- **Role of Experimental Products Development Team (EPDT)**
- **AWIPS II implementation**
- **WFO visits**

Selected User Interactions

- **WFO Boulder:**

Ed Szoke participated in Boulder WFO Winter workshop on 19 & 23 October

- BOU went to AWIPS2 operationally on 23 October
 - Still running AWIPS1 in parallel (PG products on AWIPS1)
- Are definitely interested in getting PG products into AWIPS2
- Started talks about a fire weather/total lightning evaluation starting in Spring
- SPoRT visit with CIRA on 1 November
 - Discussed potential collaborative activities with MIC Nezette Rydell

- **WFO Cheyenne:**

CIRA-SPoRT visit on 31 October (Kevin Fuell and Ed Szoke)

- We met with MIC, SOO and Satellite Focal Point to discuss potential Front Range collaborative activities between SPoRT, CIRA and WFOs
 - They are enthusiastic about taking part
 - Bandwidth issues were brought up

Selected User Interactions

- **WFO Charleston:**

SOO Frank Alsheimer made a nice presentation at the NWA meeting in Madison on use of CIRA synthetic imagery (including non-GOES Imager band)

- Good example of interaction (with Dan Lindsey and others) at Science Week meeting in KC last May leading to CIRA synthetic imagery at WFO

- **NHC:**

PG Mid-project report completed and submitted to the GPO
Chris Landsea (SOO at NHC) visited CIRA October 24
RGB Sounder Air Mass used during Hurricane Sandy, more GOES-14 SRSO

- **HPC/OPC:**

Dan Bikos and Ed Szoke met with Mike Folmer at NWA

- He informed us of his interactions and that he is very willing to help with CIRA Proving Ground work and training activities



CIRA Product Example

- **Synthetic imagery example**
 - Frank Alsheimer (WFO Charleston)
NWA slides emphasizing the use of ABI band 7.4 μm

Why Use NSSL WRF Simulated Satellite Data at WFO CHS?

- Promote the use of “non-traditional” bands (i.e. $7.4 \mu\text{m}$)
- Another source of “hi-res” model data
- Improve specifically identifiable forecast issues at CHS, including
 - ✓ Convective Coverage
 - ✓ Low Clouds/Fog (Aviation forecasts)
 - ✓ Sea Breeze Penetration Timing

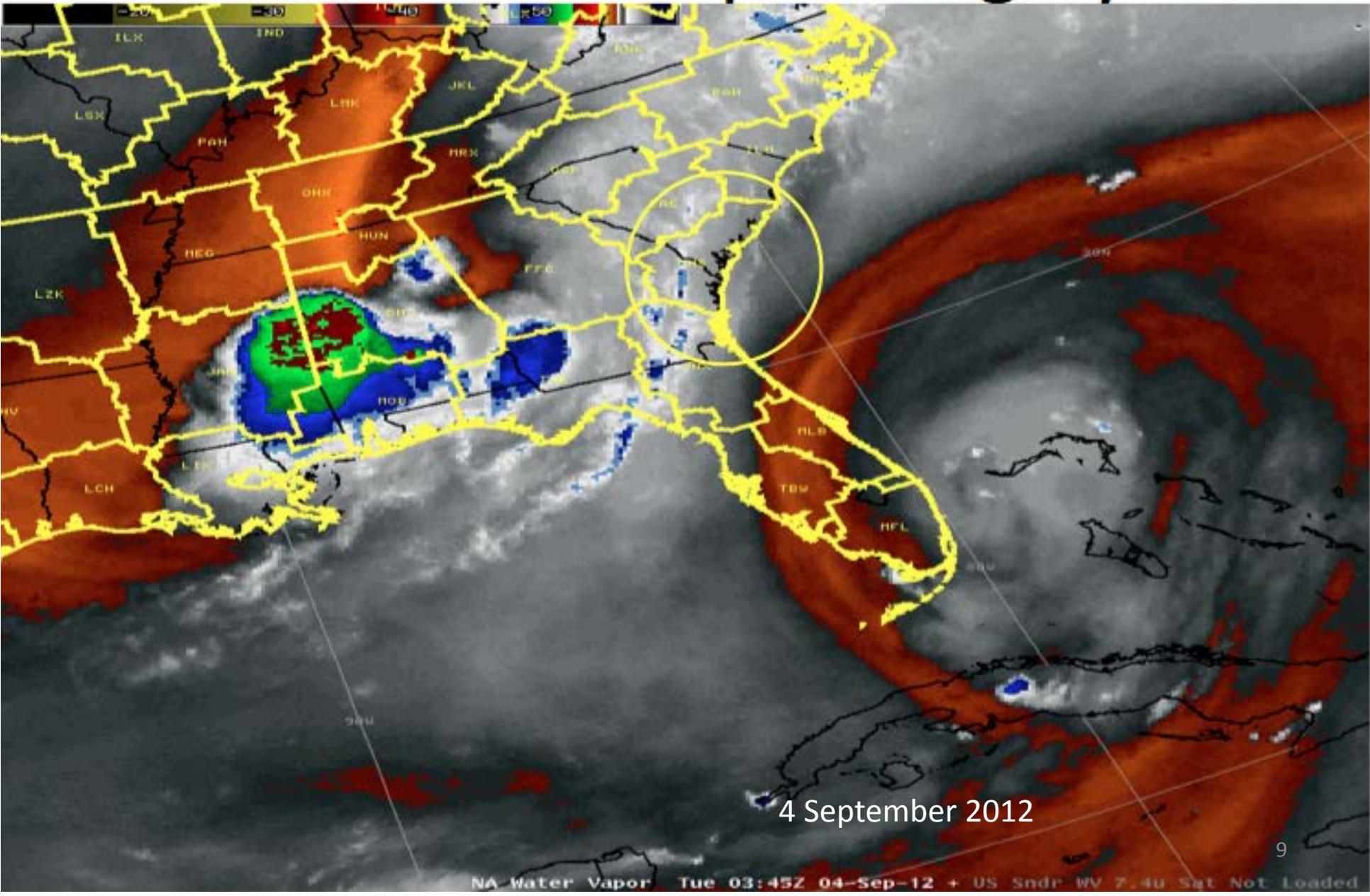
This and the next few slides are from Frank's NWA talk.

Why Use Simulated Satellite Data at WFO CHS?

- Easier to get a 3-D concept of forecast
- A quick visual tool for in-time verification
- Beneficial in creating WFO sky cover grids

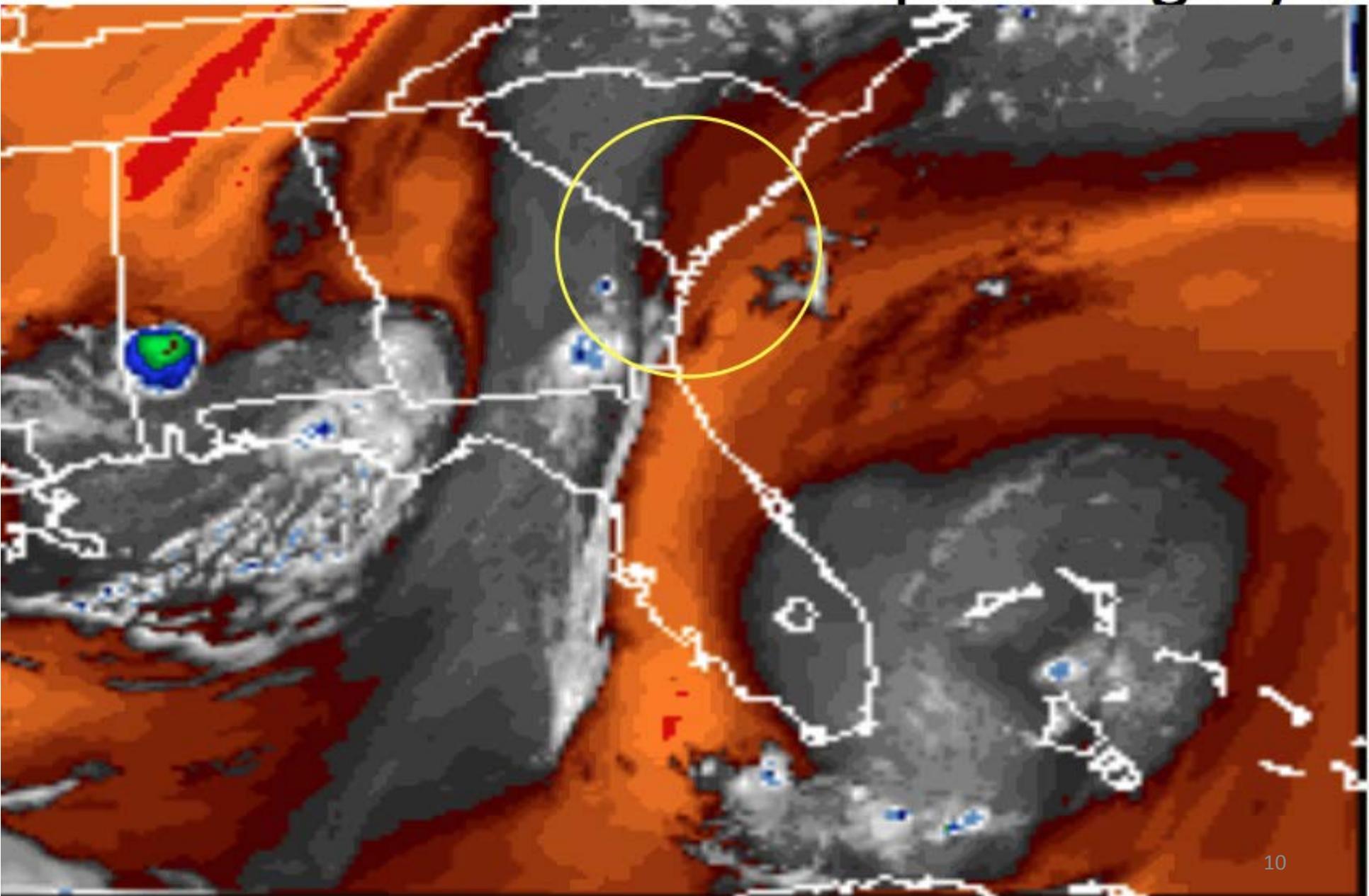
There have been a number of requests for ways to get synthetic imagery to populate the GFE sky cover grids. Dan Bikos is working with Mike Folmer on this.

GOES-East 6.5 μ m imagery

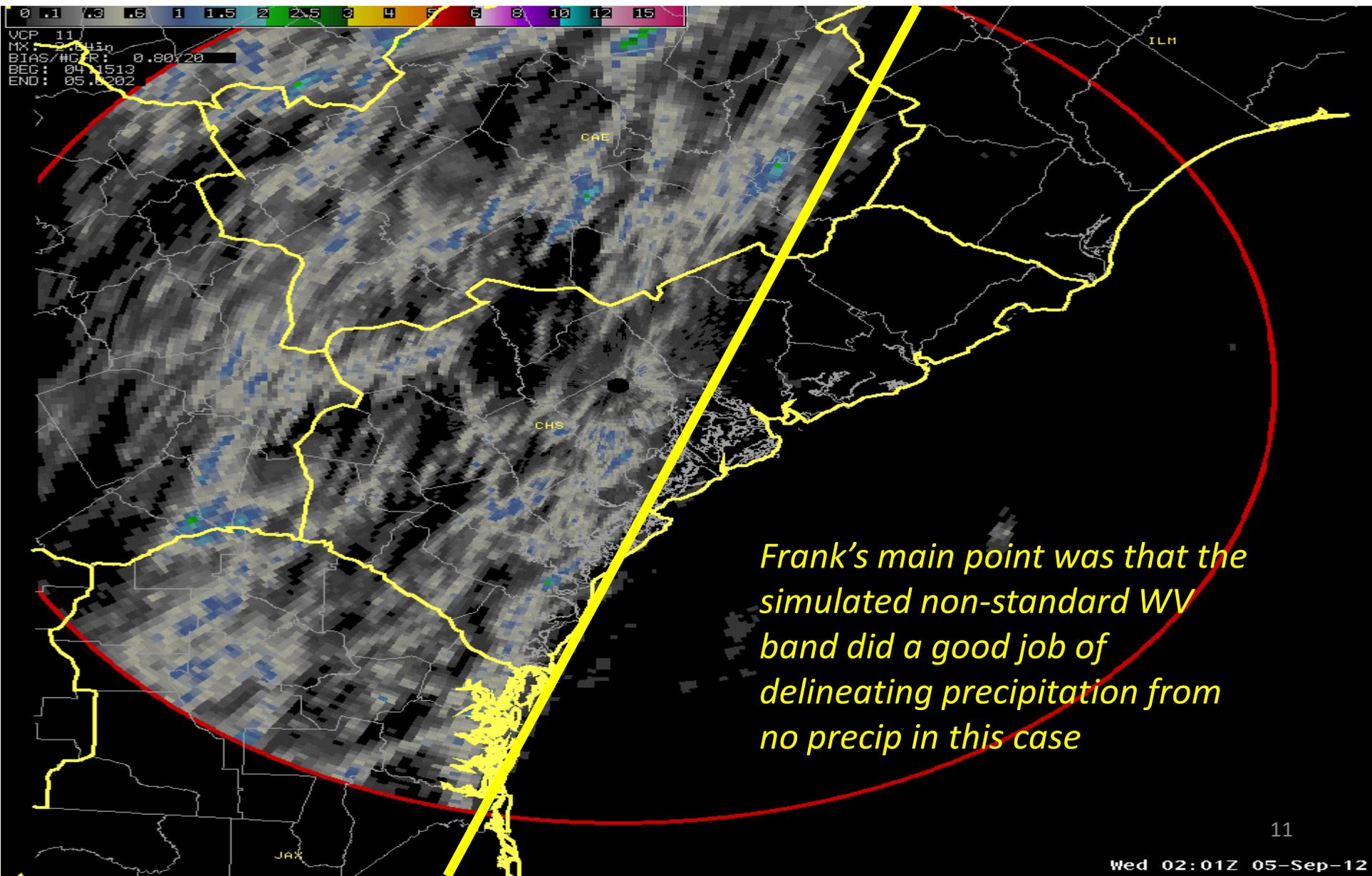


4 September 2012

NSSL WRF simulated 7.4 μm imagery



Radar-estimated rainfall



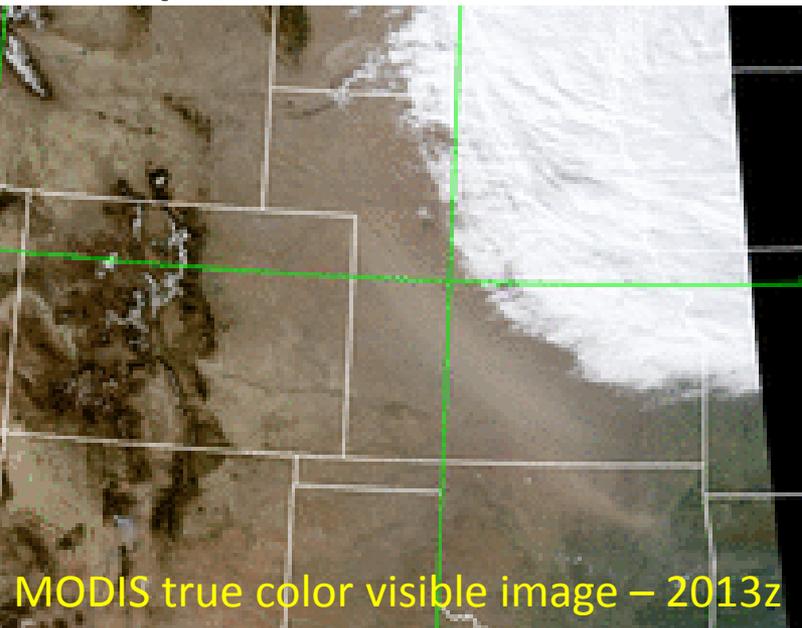
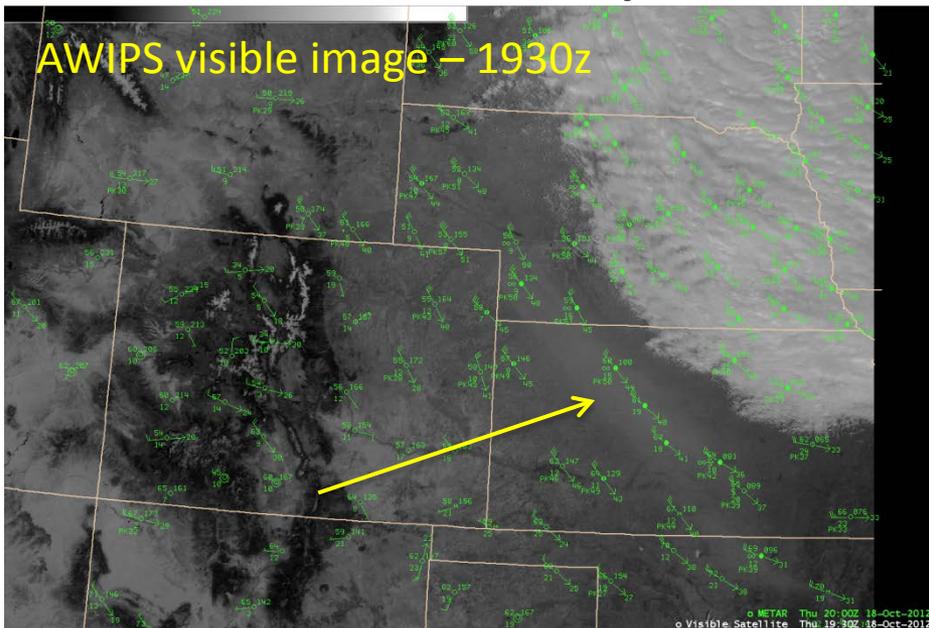


CIRA Product Example

- **Dust product example presented at October BOU WFO Workshop**

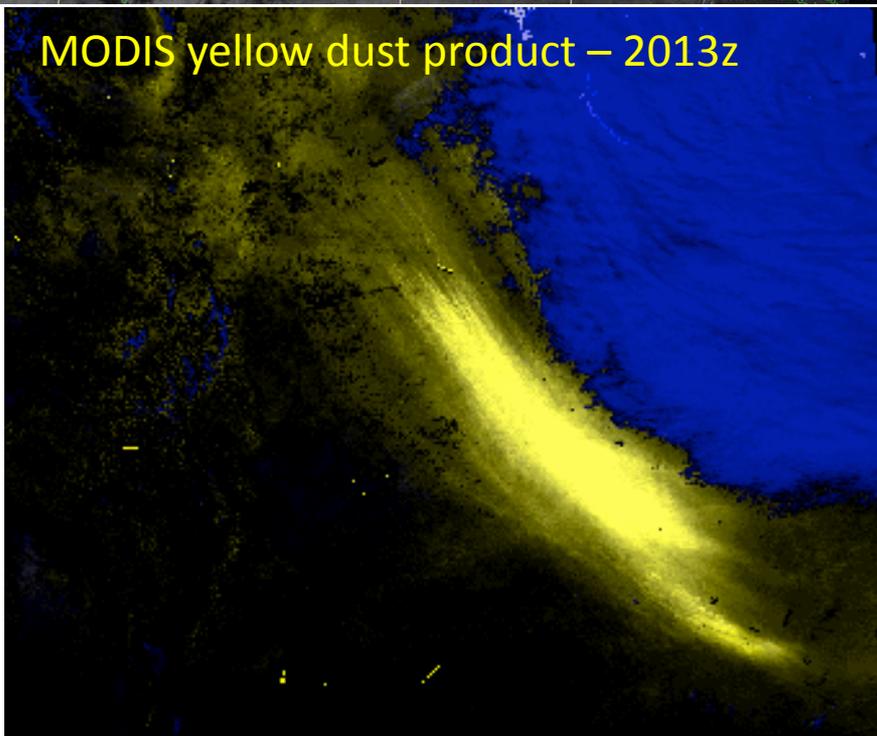
WFO Boulder Workshop: Dust Products example from 18 October 2012

AWIPS visible image – 1930z



MODIS true color visible image – 2013z

MODIS yellow dust product – 2013z

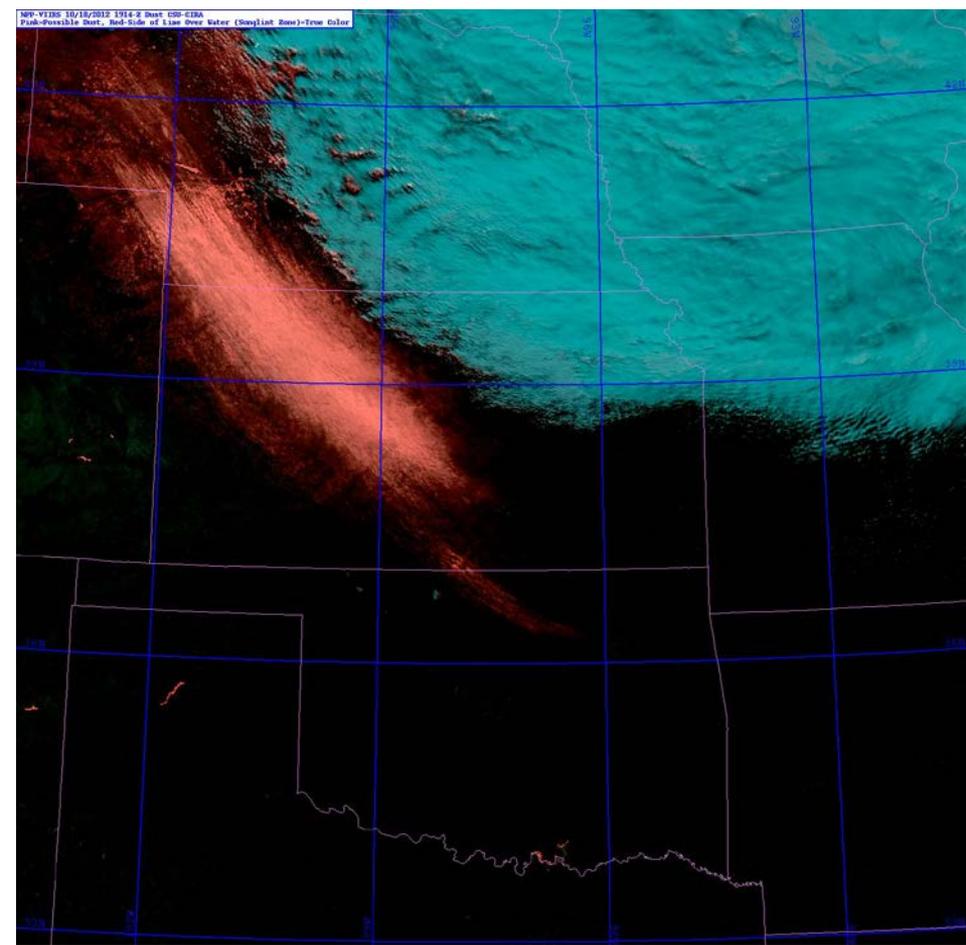


MODIS pink dust product – 2013z

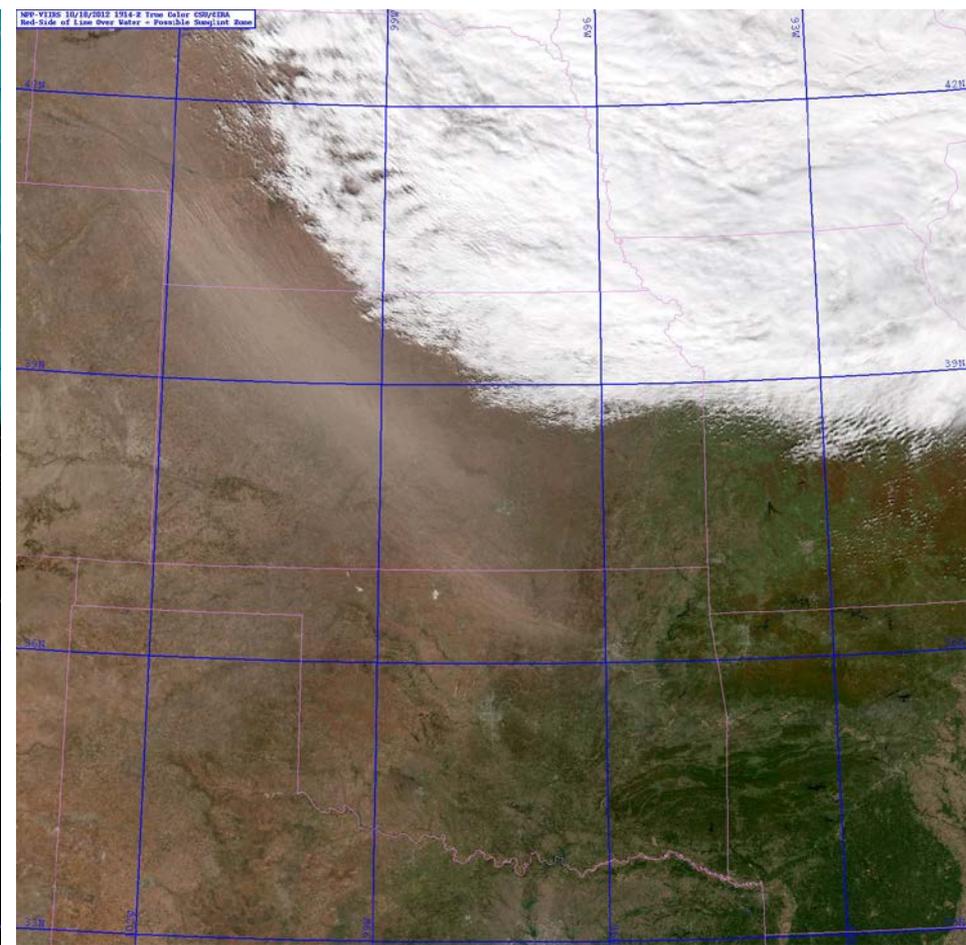




Imagery and dust product from NPP-VIIRS



Pink dust product



True color visible

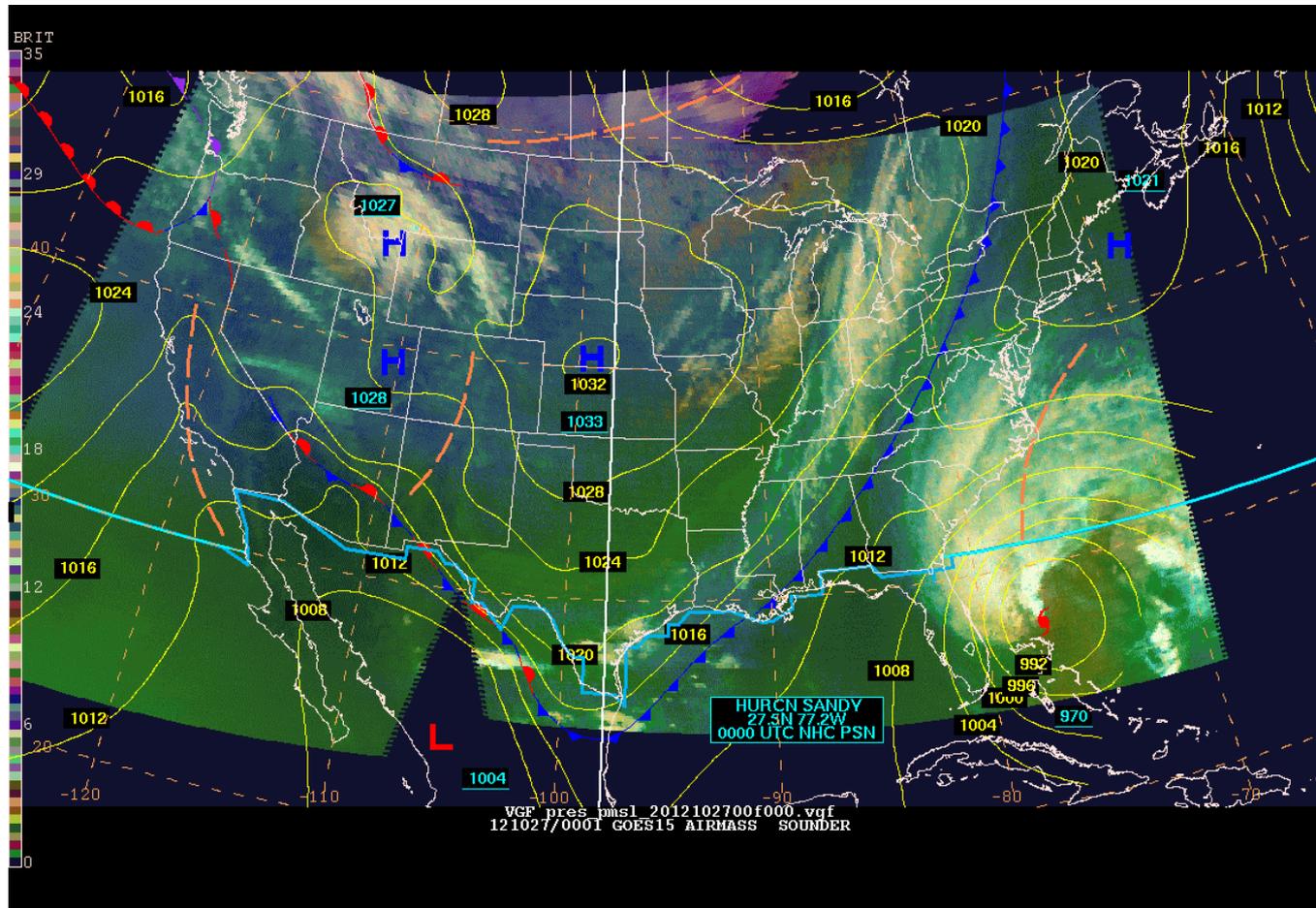
Images from 18 October 2012 at 1914 UTC

NHC Proving Ground:

RGB Air Mass Product during Hurricane Sandy

- Continued CIRA, SPoRT, CICS (Folmer) collaboration
- Used in NHC's forecast discussions
- Further discussion on M. Folmer's blog

<http://goesnatcentperspective.wordpress.com/2012/11/07/sandy-as-seen-through-the-rgb-air-mass-product/>



AWIPS1

- Orographic Rainfall Index (ORI) for Pacific OPS available on LDM at CIRA
 - S. Kidder ORI product for Hawaii is being distributed via LDM.
 - Installation instructions for ORI Hawaii product for AWIPS I sent to Roy Huff (thanks to J. Gerth for his guidance in HFO localization on AWIPS).
- Sounder Airmass RGB product available on LDM at CIRA
 - D. Lindsey is converting the McIDAS AREA file created at SPoRT to netCDF and displaying it on AWIPS1 here at CIRA with a different color table.
 - Per request from J. Craven, WFO Milwaukee, CIRA will provide installation instructions to get the product into their AWIPS1.
- Configuration of new AWIPS1 WES workstation is underway

AWIPS2

- AWIPS2 products to CRH
 - Still running 12.8.1 standalone due to broken McIDAS plugin in 12.9-10.
 - CRH verifies that plugin is fixed with 12.11
 - Real-time AWIPS2 format 1KM east & west CONUS GeoColor & 4KM east & west CONUS CIRA low cloud/fog decision aid products are being sent to CRH server via LDM and are being displayed on CRH AWIPS2.
 - Single 1KM CONUS GeoColor product 4 KM CONUS & 4 KM low cloud/fog decision aid in the works.
 - Next step will be test installation at OAX.

AWIPS2 (cont)

- Test NDE-NPP VIIRS EDR ingest
 - NDE-AWIPS test data for AK region (imager bands 1, 4 & 5) are being ingest via CIRA's NOAAPORT via the POLARSAT channel.
 - NPP plugin for AWIPS2 is available in OB12.11 (we just received 12.10 standalone).
 - Other VIIRS data (additional bands and sectors) will eventually be transmitted to additional WFO's as well. DNB has been bumped up in distribution priority.
 - Deb participating in the NDE-AWIPS Working Group telecons.

- New CIRA AWIPS2 LDM feed
 - New linux box has been configured for LDM product transmission to AWIPS2 Proving Ground sites.
 - AWIPS1 automated product generation and transmission procedures are being re-worked to facilitate AWIPS2 product distribution.

- CIRA participation in AWIPS2 External Product Development Team (EPDT)
 - Deb participating in the SPoRT led bi-weekly telecons
 - Provides valuable information; important to the development of
 - baseline ADE understanding .
 - standards for development of external AWIPS2 products.



Highlights from NWA meeting

- ❑ **Dan Bikos, Ed Szoke, Dan Lindsey attended the NWA meeting Oct 8-11 in Madison**
 - **Dan Bikos – VISIT poster**
 - **Ed Szoke – CIRA Proving Ground overview poster**
 - **Dan Lindsey – Talk on Proving Ground synthetic imagery**

- ❑ **Some highlights / lessons learned:**
 - **Kudos to Jordan for a good job with a lot of last minute changes**
 - **Go-to-meeting is nice, but hopefully not a substitute for letting forecasters and others go to a conference**
 - **Touched base with Wayne Feltz about WFABBA product**
 - **Get together with Scott Lindstrom and Mike Folmer**



Conferences / Meetings

Recent:

- Sep 10-14: Mark DeMaria and Andrea Schumacher at NHC
- Sep 10-12: Louie Grasso at SPC, NSSL
- Sep 17-19: Renate Brummer at EUMETSAT RGB Workshop in Seeheim, Germany
- Oct 1-5: Steve Miller at University of Alaska / Fairbanks
- Oct 8-11: NWA Annual Meeting in Madison (Ed Szoke, Dan Lindsey, Dan Bikos)
- Oct 9-10: Andi Walther (CIMSS) visit to CIRA
- Oct 19+23: Ed Szoke at WFO BOU Winter Workshop
- Oct 24: Chris Landsea (NHC) at CIRA
- Oct 30-Nov 1: SPoRT visit to CIRA (Visiting Scientist Program)

Upcoming:

- Jan 7-10: AMS Annual Meeting, Austin, TX



Thanks!

Questions..?