

GOES-R Satellite Liaison Update January 2013 All-Hands Call



Forecaster Forum – Wednesday 22 January 2014

- Wednesday 22 January 2014
- 2:00 pm – 5:00 pm EST
- Theme: Monitoring Convective Initiation and Convection

- Opportunity for WFO and National Center forecasters to present how they have used GOES-R or JPSS Proving Ground products, what worked/did not work, any recommendations or modifications to the products, and any other feedback.

- Andrew Orrison - WPC:
The WPC MetWatch desk: Using GOES-R proxy products

- Ed Holicky - AWC:
Utilizing the GOES-R CI and PGLM to Forecast for Convection at the AWC

- Dan Baumgardt - LaCrosse, WI WFO SOO:
Summer Evaluation of Convective Cloud-Top Cooling Over the Upper Midwest



2013 NHC Proving Ground Highlights – Mark DeMaria

- Hurricane Specialist PG ended Nov 30th 2013
- Very quiet season in Atlantic, East Pacific also quiet
 - No Atlantic Rapid Intensification cases, no major hurricanes
 - Only one major hurricane in the East Pacific
- No SRSO cases from GOES-14 due to slow season
- Air Mass and Dust RGBs used often by HSU and TAFB
- Considerable feedback on lightning data
 - Useful for continuity during GOES-east outage
 - Large lightning outbreaks for sheared storms
 - Consistent with rapid intensification algorithm
 - Radial scaling may be needed for small East Pacific storms
- Hurricane Intensity Estimate higher refresh rate useful during Humberto
- More efficient access to products obtained through new LDM feed to NHC from SPoRT



2013 NHC Proving Ground Highlights – Mark DeMaria

- **Lightning Outbreak Indicated Increased Shear in NHC's TD Eleven Forecast Discussion**

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WTNT41 KNHC 300840

TCDAT1

TROPICAL DEPRESSION ELEVEN DISCUSSION NUMBER 6
NWS NATIONAL HURRICANE CENTER MIAMI FL AL112013
500 AM AST MON SEP 30 2013

THE CONVECTIVE CLOUD SHIELD REMAINS SHEARED NORTHEAST THROUGH
SOUTHEAST OF THE CENTER. THERE HAS BEEN A NOTICEABLE INCREASE
IN LIGHTNING ACTIVITY DURING THE PAST COUPLE OF HOURS...WHICH
IS OFTEN INDICATIVE OF INCREASING VERTICAL WIND SHEAR. ...

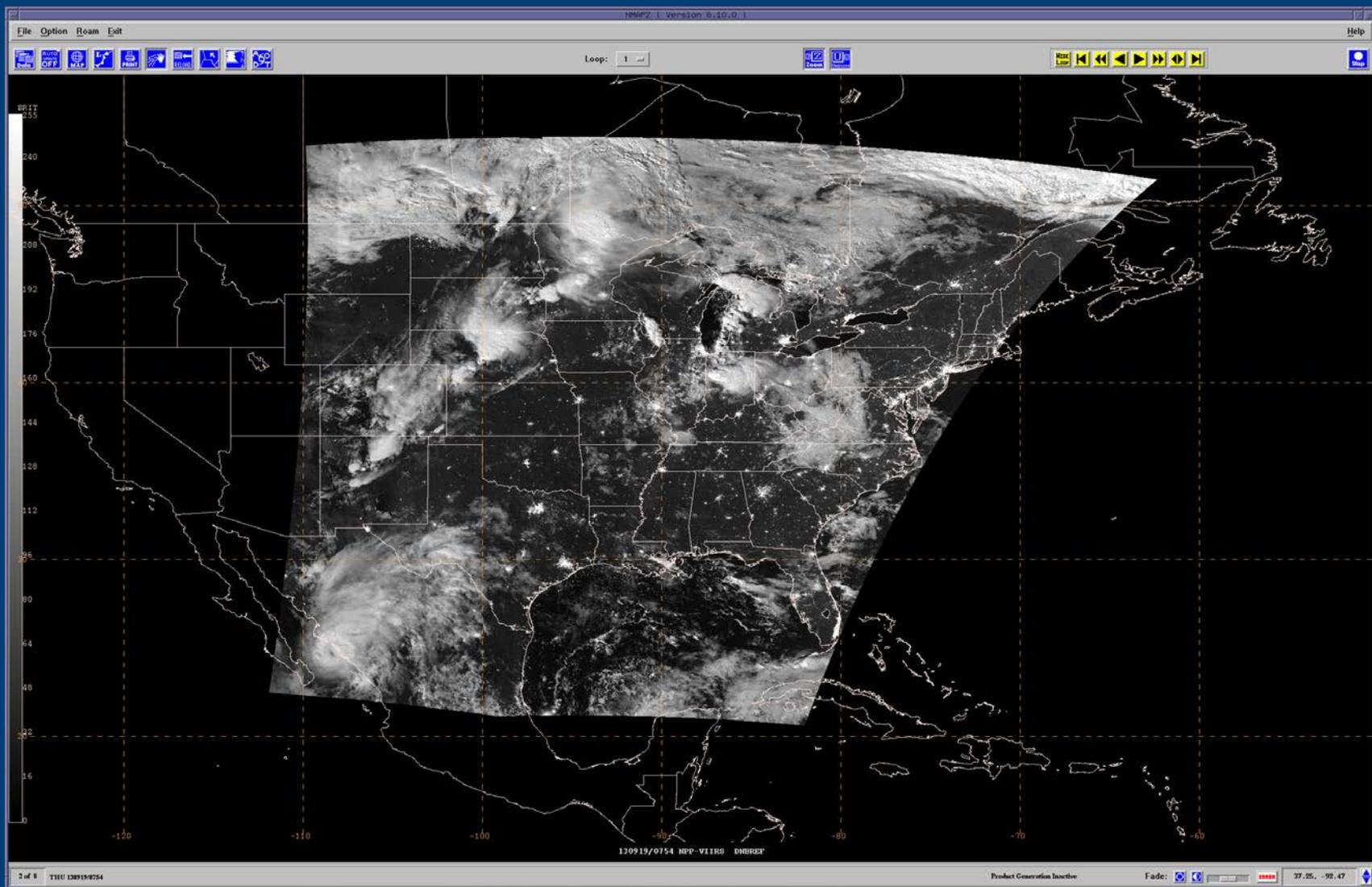
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FORECASTER STEWART



2013 NHC Proving Ground Highlights – Mark DeMaria

- VIIRS Day-Night Band for Hurricane Manuel (East Pacific) in N-AWIPS





Planning for 2014 NHC Proving Ground – Mark DeMaria

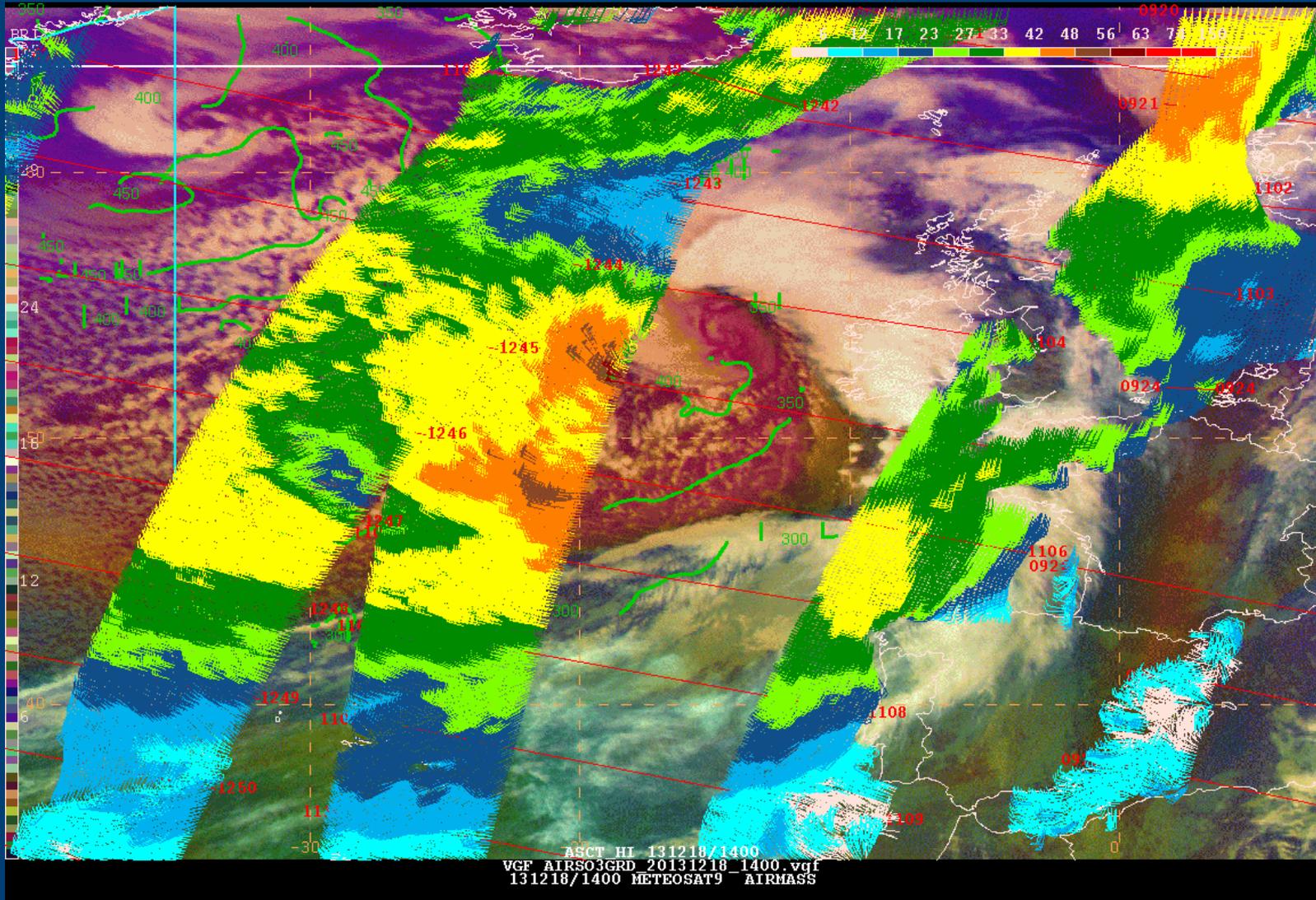
- **Complete 2013 Final Report by February 2014**
- **Present poster at 2014 AMS tropical conference (Beven)**
- **LDM feeds from NHC to CIRA and CIMSS approved**
 - Will allow more direct access to some products
- **DDS feed from NESDIS/OSPO to NCO being established**
 - Will allow operational transition of some products
 - Creates a path for ATMS products
- **Work towards more quantitative evaluation of a subset products**
 - Only HIE and lightning RII have quantitative evaluation now
 - Will work with hurricane forecasters on new feedback methods
 - Need more vetting through R3 of some products before demonstration
- **Finalize 2014 evaluation plan by June 2014**
- **AWIPS2 FOTE should begin in summer 2014 at NHC**
 - May be possible to create RGBs directly at NHC



- The 2014 Winter Demonstration runs from 01/15/14 – 04/15/14
- Centers: OPC, SAB, TAFB, and WPC
- Products:
 - RGB Air Mass (SPoRT)
 - AIRS Ozone (Total Column and Anomaly) (SPoRT)
 - Fog and Low Stratus (CIMSS)
 - Hybrid Imagery (Geo and Leo combo) (SPoRT)
 - Convective products when usable
 - OTD (CIMSS)
 - Lightning Density (OPC and NESDIS/STAR)



- Example of RGB Air Mass and AIRS Total Column Ozone





- Familiarization shadow shifts last summer
- Product demonstrations began late summer
 - 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 (CIMSS), OTD (CIMSS), NearCast (CIMSS), SRSO (when available, from CIRA)
- Planned future demonstrations (and/or currently being evaluated by liaison)
 - UAH-CI (SPoRT)
 - pGLM (SPoRT)
 - GOES-R FLS (CIMSS)
 - RGB Airmass (SPoRT)
 - Simulated Imagery (CIRA)
 - GEO/LEO Hybrid Imagery (SPoRT)
 - NESDIS Snowfall Rate
 - UW Severe Probabilities (CIMSS)





- **2013 HWT Spring Experiment**
 - Final report: <http://www.goes-r.gov/users/docs/pg-activities/PGFR-HWT-2013-Final.pdf>
- **2014 HWT Spring Experiment**
- **Experimental Forecast Program**
 - Week of May 5 through week of June 2
 - NearCast (CIMSS)?
- **Experimental Warning Program**
 - During first 3 weeks of EFP (at least)
 - Likely GOES-R Products:
 - UAH-CI (SPoRT)
 - UW Severe Probabilities (CIMSS)
 - NearCast (CIMSS)
 - Total Lightning/pLGM (SPoRT)
 - SRSO (if/when possible)
 - Moving Trace (SPoRT)?
 - Simulated Imagery (CIRA)?
 - RGB Airmass (SPoRT)?
 - Other?
- **2014 HWT Summer Experiment – Unlikely**

Upcoming Events

- Next week: Collaboration calls with CIMSS, CIRA and SPoRT
- Feb 3-6: AMS
- Mar 5-7: UW CIMSS satellite liaison on-site coordination meeting
- Mar 10-14: Science Week



Aviation Weather Testbed – Amanda Terborg

- **2014 demonstration(s)... plans are in the works but temporarily on hold due to staffing considerations**
 - Will likely be smaller scale and longer term evaluations with perhaps one week-long demo in the latter half of 2014
 - Theme may vary
- **Forecaster forum... two AWC participants!**
 - CCFP/CSIG forecasting
 - Applications at the ATCSCC
- **AMS...two orals**
 - ARAM – covering the AWT 2013 Summer Experiment
 - GOES-R/JPSS – tag team with Michael and Bill



- Comments from the field...from the FAA Morning Briefing on Dec. 23rd...

“Using GOES-R technology (IFR probabilities), the National Aviation Meteorologist was able to capture the fog in Denver this weekend with a 45 minute lead time, avoiding diversions.”



Operations Proving Ground Update – Chad Gravelle

- **GOES-R Fog and Low Stratus West Coast WFO (SEW, EKA, LOX, and MTR) Final Report** being submitted for review in a few weeks.
- **Leading the effort to streamline AWIPS 2 GOES-R product configuration/installation directions for WFOs into VLab.**
 - Representatives from NWS, GOES-R, CIMSS, CIRA, SPoRT, and MDL
- **Planning the OPG Operational Readiness Evaluation for SPoRT/MDL AWIPS2 Tracking Tool.** Preliminary scheduled for mid April.
- **Transitioning GOES-R WFO evaluations from being product centric to a fused approach where appropriate.** GOES-R Seminar Friday 1/24.
- **Spring/Summer WFO evaluations are being planned and will be centered around convective monitoring products.**



Alaska: Recent Activities – Eric Stevens

- **November 12-14: Liaison meeting at NASA SPoRT**
- **December 9-10 in Anchorage**
 - Promote RGB NT Micro evaluation at WFO, AAWU
 - Met at CWSU, potential collaboration with CrIS?
 - Recorded VIIRS DNB spot for “Alaska Weather” TV show
- **SNPP Science Product Review Dec 18-20**
 - Presentation concerning use of VIIRS by NWS Alaska
 - Met with Bill Sjoberg



Alaska: Ongoing/Future Activities – Eric Stevens

- **December/January: Evaluation of SPoRT RGB NT Micro product at Alaskan NWS Forecast Offices**
- **AMS Annual Meeting in February**
- **NOAA Satellite Week in March**
- **Summer: possible work with SPoRT's Matt Smith at Alaskan WFOs?**
- **The next 48 weeks will be brighter than the last four**



WDTB GOES-R PG Update – Lance VandenBoogart

- **Quick hello**
 - Lance VandenBoogart
 - Studied at Wisconsin and Colorado State
- **Recent activities**
 - Getting involved with GOES-R training calls
 - Please email <lance.vandenboogart@noaa.gov>
 - Distance Learning Operations Course
 - Setting up AWIPS2 real-time feed
 - GROW course instructional design
 - Jim LaDue involved on development of overall course design



- **GROW course current status**
 - **Goals:**
 1. Improve NWS short-term forecast by transferring GOES-R R20
 2. Integrate digital GOES-R data into current operations
 - **Course consists of 3 stages:**
 1. A standard set of core prerequisite modules to set baseline understanding
 2. Service specific training (aviation, hydro, fire wx, convective, etc.)
 3. Ongoing “just in time” training including a GOES-R helpdesk