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

GOES-R Proving Ground Update

4 March 2013

Contributions from:
Kevin Fuell, Geoffrey Stano, Matt Smith, Andrew Molthan
General Outline SPoRT Status Report:

Total Lightning
• Network ingest status, HWT 2013

RGB Imagery
• Snow-Cloud RGB Comparison, VSP prep to NHC for DtMicro & Convective RGB in Tropical PG

AWG Support
• QPE (NESDIS) & Layer PW (CIRA)

Other:
• publications, collaborations w/ users

AWIPS II
• EPDT TIM status/update

JPSS
• Users, Quick Guides, etc.
Total Lightning Activities

- SPoRT’s LMA visualization plug-in received ATAN for AWIPS II
  - Coordinating with approved WFOs on data roll-out
  - Allows WFOs on AWIPS II to begin using total lightning
- Submitted proposal to the Operational Proving Ground
  - Collaboration between SPoRT and MDL
  - Evaluate the total lightning tracking tool
  - Small piece of MDL’s larger meteogram tool

Tracking tool demo with DCLMA PGLM observations
Collaborations Texas Tech University

- Collaboration with Texas Tech to obtain West Texas LMA data
- Activity intended to support GOES-R PG efforts
  - PGLM Mosaic to national centers
  - Ingest with HWT this year using SPoRT plug-in

AWIPS II demo of West Texas LMA data
Collaborations with CIRA / CSU

- Work continues on Colorado LMA actions
- LDM feed active
- Colorado LMA products being produced
- Preparing ingest instructions for CIRA’s partner WFOs
  - Boulder
  - Cheyenne
- Initial effort will focus on fire weather activities

First AWIPS II demo of Colorado LMA data
RGB Imagery

Snow-Cloud Comparison

SPoRT RGB (3/2/13, MODIS 1837Z and VIIRS 2029Z)

CIRA MODIS RGB via RAMSDIS Archive (3/2/13, 1837Z)

Collaboration Call w/ CIRA and western WFOs
• Comparison eval of RGB
• SPoRT creating file for CYS
• SPoRT testing CIRA file ingest for ABQ and TFX
RGB Imagery
Day-time Micro and Convective Storms in Tropical PG

Preparing for Visiting Scientist Program project to NHC

- Objective: Introduce RGB imagery for storm analysis applications
- EUMETSAT rep to attend visit (Jochen Kerkmann)
  - They have imagery from 2012 season.
  - Fuell/Folmer have NAWIPS archive.
- 2012 potential cases
  - Hurricane Leslie (8/30-9/11)
  - Hurricane Michael (9/3-9/11)
  - Hurricane Nadine (9/10-10/3)
  - Tropical Storm Oscar (10/3-10/5)
  - Tropical Storm Tony (10/22-10/25)
AWG Support Activities

Evaluation of NESDIS QPE

- West Coast WFOs ready to ingest (MTR, EKA, MFR)
- Evaluation to begin 3/7/13
  - Kickoff call with developers
  - Training provided / Q&A
  - Focus on data void areas over ocean (Atmos. Rivers)
  - ABQ also to look at intermountain areas
  - Users assisted with evaluation form
  - Including CIRA Layer PW
Other PG Related Activities

- AGU EOS publication (Molthan and others):
  “Satellite Observations Monitor Outages From Superstorm Sandy”
- NWA J. of Oper. Meteor. accepted publication:
  “Multispectral Imagery for Detecting Stratospheric Air Intrusions Associated with Mid-Latitude Cyclones”
  - Comparison of MODIS Air Mass RGB to atmos. Analysis and AIRS ozone
- Technical work to support NHC and WPC in upcoming season
- Plan participation in NOAA Satellite Science Week Virtual Workshop and GOES Satellite Conference
AWIPS II

• Governance Policy
  – SPoRT visited SEC to fine-tune checklist of requirements
  – For GOES-R PG partners and other non-NOAA institutions
  – SEC will present soon via Virtual Lab and ??
  – SPoRT LMA plug-ins going through governance process (ATAN)

• Experimental Products Development Team (EPDT)
  – Next week (March 12-14) in Huntsville @ SPoRT
  – Focus: Writing EDEX and CAVE plug-ins
  – Hands-on training and lab activities
  – 15 trainees
  – More meetings to come

• Deployment to enter second tier after upcoming test
• Sending VIIRS data
  • Single channel swaths
  • RGB swaths
  • POES/GOES Hybrid

• AWIPS
  • Requires menu updates
  • Complete: TFX, ABQ, MTR, EKA, MFL, MLB, RAH
  • Upcoming: LIX, AFC, AJC, MOB, CRP

• AWIPS II
  • Will provide VIIRS data as desired
  • HUN, HGX, BOU, Reg’l HQs

• Training
  • Quick guides avbl. online
  • http://weather.msfc.nasa.gov/sport/training/
SPoRT Blog Entry (Kris White/HUN)


Nighttime snow melt captured in VIIRS Day/Night Band imagery
The end