



# JPSS Proving Ground and Risk Reduction Update 1 Jul 2013



# Important Topics

- Program/Satellite Initiatives
- SNPP Images of Interest
- JPSS Science Seminars
- OCONUS Satellite Proving Ground
- Participation in Future Conferences and Meetings



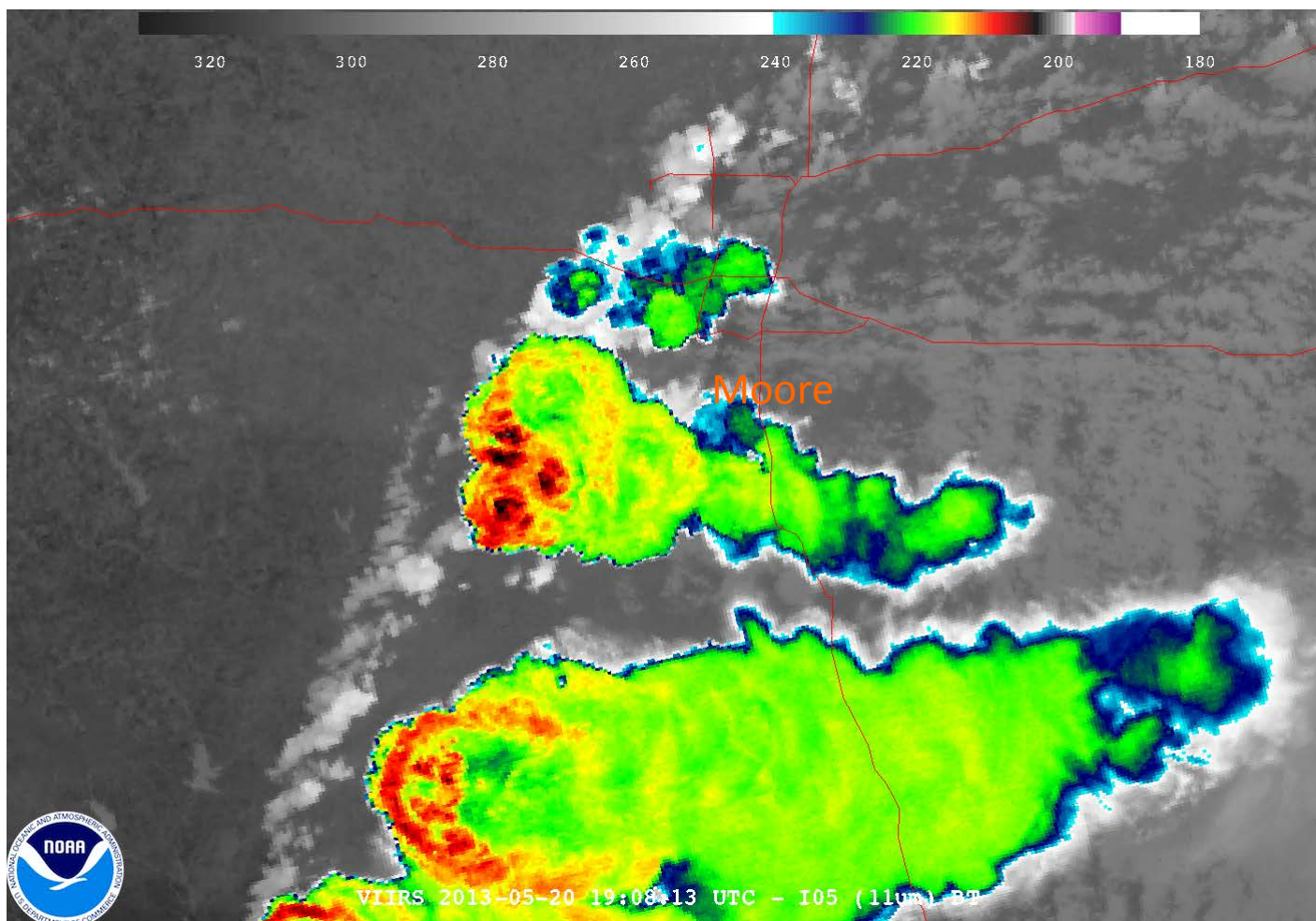
# Program/Satellite Initiatives

- CSPP Users Meeting – Madison WI (21-23 May)
  - Good NOAA Participation even if many did so via telecon
  - Outstanding international support
  - Captured feedback from user community on operational value of SNPP data
- PGRR Air Quality projects briefed at Air Quality Applied Science Team Meeting (4-6 Jun)
- Mitch provided a PGRR Proving Ground update to the JPSS Customer Forum (7 Jun)
- OCONUS Satellite Proving Ground Meeting (more details later in brief)
- Funds approved to field additional X-Band antennas for direct broadcast – Sandy Supplemental
- Mitch to attend the Coordination Group for Meteorological Satellites Meeting in Jul

# Moore Tornado (VIIRS I05)

## May 20 2013, 1910Z

Image From  
William Straka III - CIMSS



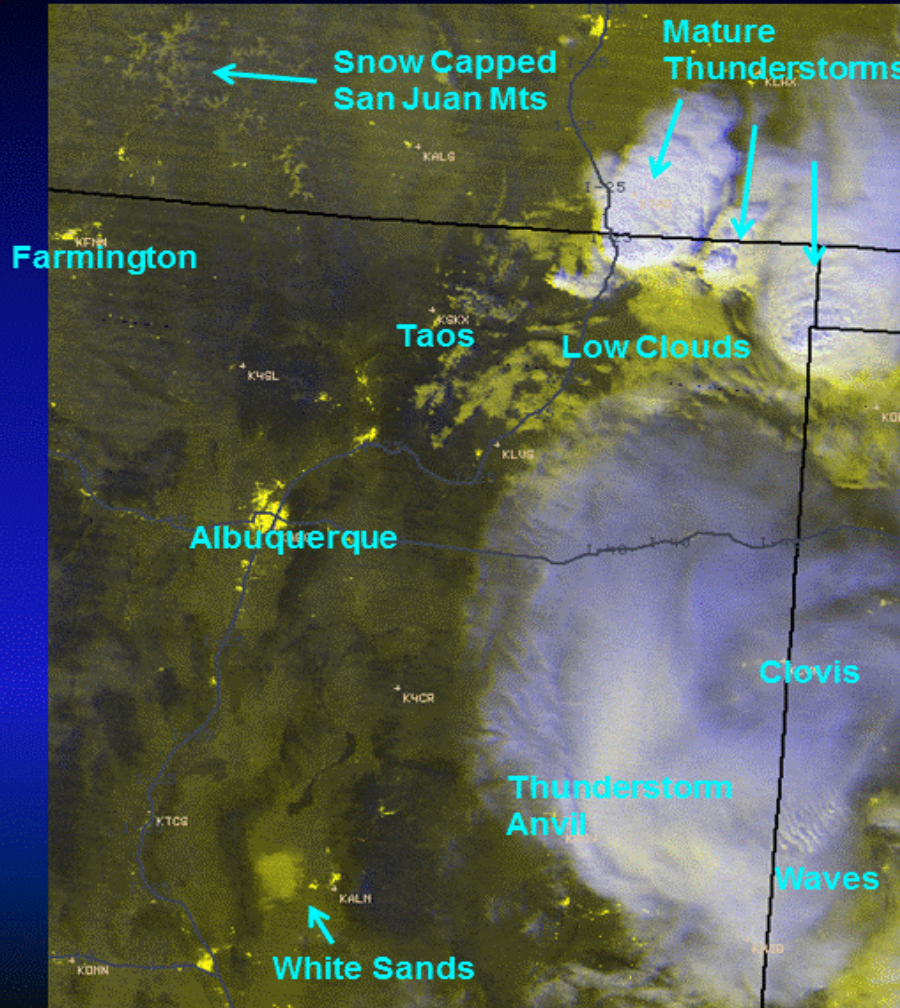


# Borrowed from SPoRT



NWS Albuquerque

## Satellite Captures Moonlit Atmosphere



Reflected moonlight from the full "flower" moon is providing stellar images from the VIIRS satellite.

Large thunderstorms that developed over the east last night reflected so much of the full moonlight that it was almost as if the sun was out.

Several features noted on this image include city lights, White Sands, snow capped mountains, low clouds, wave clouds, thunderstorm anvils, and mature storm updrafts.

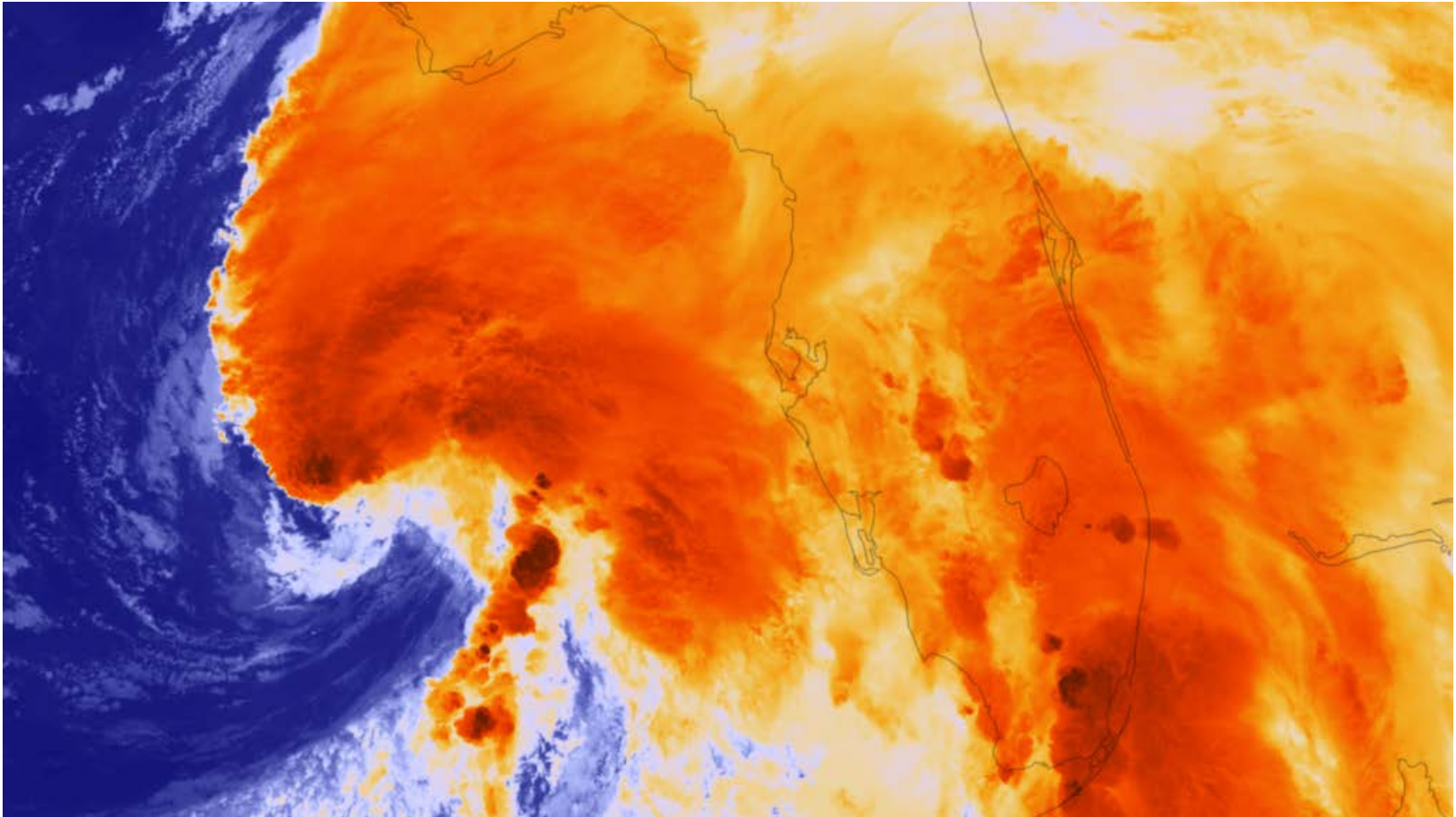
**May 25, 2013 147am**





# Tropical Storm Andrea – Jun 2013

Image From  
NOAA Environmental Visualization Lab



As Tropical Storm Andrea was intensifying over night, the Suomi NPP satellite passed over the storm, taking this highly detailed infrared imagery showing the overshooting cloud tops (colored dark orange) associated with the most intense areas of convection - and threat for tornadoes. As of 7:00 CDT on June 6th, the storm was centered 160 miles west of Tampa, FL. Sustained winds are holding at 60 mph. The National Hurricane Center and Storm Prediction Center are monitoring the storm for tornado outbreaks throughout Florida. The storm is expected to make landfall later today near Steinhatchee, FL. Up to 5 feet of storm surge expected from Apalachicola to Tampa Bay.



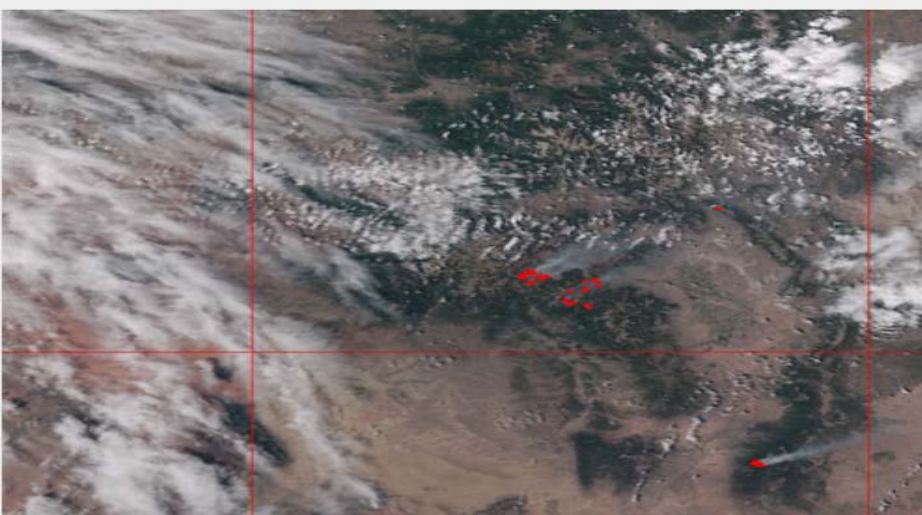
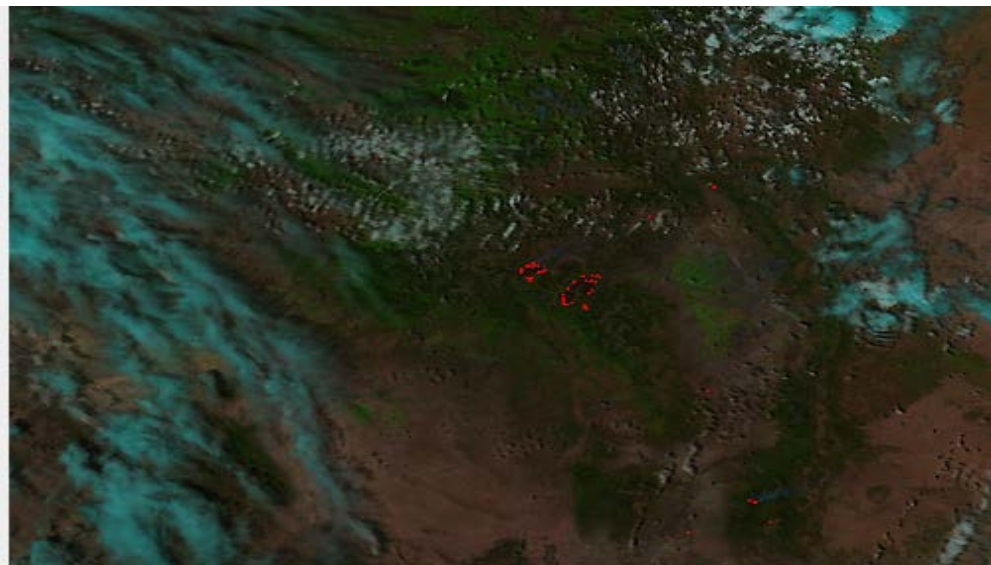
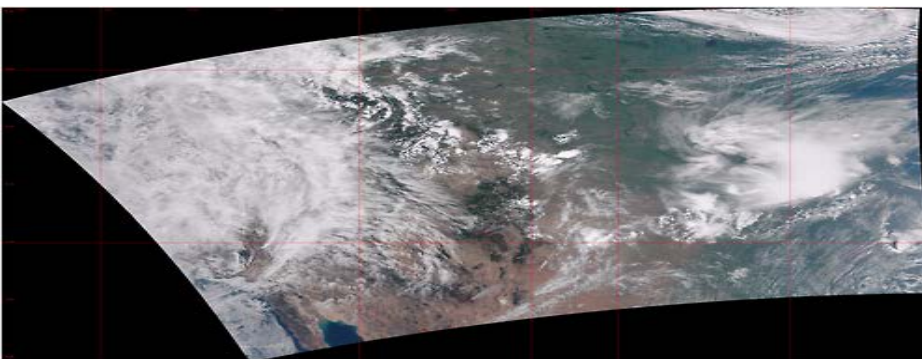
# Australian Fires - Jun 2013

Image From  
NOAA Environmental Visualization Lab



Dozens of wildfires release wisps of smoke throughout the Northern Territory. Offshore, phytoplankton and sediment create swirls of blue, green, and beige. This image was produced by using the “true color” bands on the Visible and Infrared Imaging and Radiometer Suite (VIIRS), while the thermal signatures of the fire locations are augmented in red using the M13 “fire detection” band.





The West Fork Complex continues to grow, mostly to the north and northeast. The southern portion rate of spread has slowed despite ridge-top gusts exceeding 30+ mph, and, according to the Incident Meteorologist (IMET) Mark Loeffelbein, at least gust one recorded at 60+ mph. The VIIRS AF team has a member visiting the West Fork Complex to meet with incident team members such as the IMETs, Fire Behavior Analysts (FBANs), GIS analysts, and other fire incident decision support cadre. In the top image, several fires can easily be seen from Colorado to Mexico. The 2nd image from top is zoomed in on the Colorado-New Mexico border and clearly shows the West Fork Complex in the center of the scene. The Complex is now made up of 3 fires: the Papoose (the cluster of fire pixels in upper left portion of the complex); the West Fork (lower right); and the Windy Pass (which has just two detections nearly adjacent and to the lower right of the West Fork cluster). Additional fires in the image include the Ox Cart to the northwest of the West Fork Complex (9 miles south of Salida) and the Jaroso fire to the southeast, in New Mexico. The third image highlights the I-band false color composite quicklook of the same overpass and demonstrates the increased detail provided by the 350m resolution Imagery bands, including a few hot spots not seen in the Moderate band resolution image (top). Finally, a few pictures of the smoke plume from fire activity north of Route 160 east of Pagosa Springs.





# JPSS Science Seminars

| Date                      | Presenters                                    | Topic   |
|---------------------------|---|---|
| <b>June 26, 2013</b>      | <b>Kent Hughes (STAR)</b>                     | <b>CoastWatch/OceanWatch Proving Ground: VIIRS Ocean Color</b><br>User Engagement, Quality Assessment, Product Development, Data Distribution Portal, and Chesapeake Bay Ecosystem Modeling |
| <b>July 15, 2013</b>      | <b>Elisabeth Weisz and Bill Smith (CIMSS)</b> | <b>SNPP Soundings in AK Region</b>  |
| <b>August 19, 2013</b>    | <b>Steve Miller</b>                           | <b>‘Seeing the Light’: Exploiting VIIRS Day/Night Band Low Light Visible Measurements in the Arctic</b>   |
| <b>September 16, 2013</b> | <b>Chris Elvidge</b>                          | <b>Estimating flared gas volumes and CO2 emissions with VIIRS data</b>  |
| <b>October 21, 2013</b>   | <b>Walter Wolf</b>                            | <b>Uniform Multi-Sensor Algorithms for Consistent Products</b>  |
| <b>November 18, 2013</b>  | <b>Mark DeMaria</b>                           | <b>Joint JPSS-GOES-R Tropical Cyclone Satellite Data Assimilation Discussion</b>  |
| <b>December 16, 2013</b>  | <b>Arunas Kuciauska and Jeff Hawkins</b>      | <b>NexSat JPSS Demonstration Project<br/>NRL-MRY VIIRS Data and Cal-Val Work</b>  |



# OCONUS Satellite Proving Ground

- Remote attendance was not ideal but was workable
- Achieved a better understanding of unique AK and Pacific Missions
- Great face-to-face opportunities to meet with PGRR Team members, and Anchorage and Fairbanks NWS Personnel
  - Anchorage/Fairbanks Weather Forecast Offices
  - Anchorage River Forecast Center
  - Alaskan Aviation Weather Center
  - AK Volcanic Ash Advisory Center
  - Gilmore Creek Command and Data Acquisition
  - GINA Facilities
- Action Items documented and will be worked
- Value to Pacific NWS Personnel uncertain
- Status of future OCONUS meetings TBD



# Participation in Future Conferences and Meetings

- Coordination Group for Meteorological Satellites Conference – Japan (8-12 July)
- 2013 EUMETSAT Meteorological Satellite Conference & 19th AMS Satellite Meteorology, Oceanography, and Climatology Conference, Vienna Austria (16-20 Sept)
- National Weather Association Annual Meeting, Charleston SC (12-17 Oct)

Note: limited NOAA attendance – review abstracts