



JPSS Proving Ground and Risk Reduction Update 9 Sep 2013



Important Topics

- JPSS Program Status
- SNPP Images of Interest
- JPSS Science Seminars
- Participation in Future Conferences and Meetings

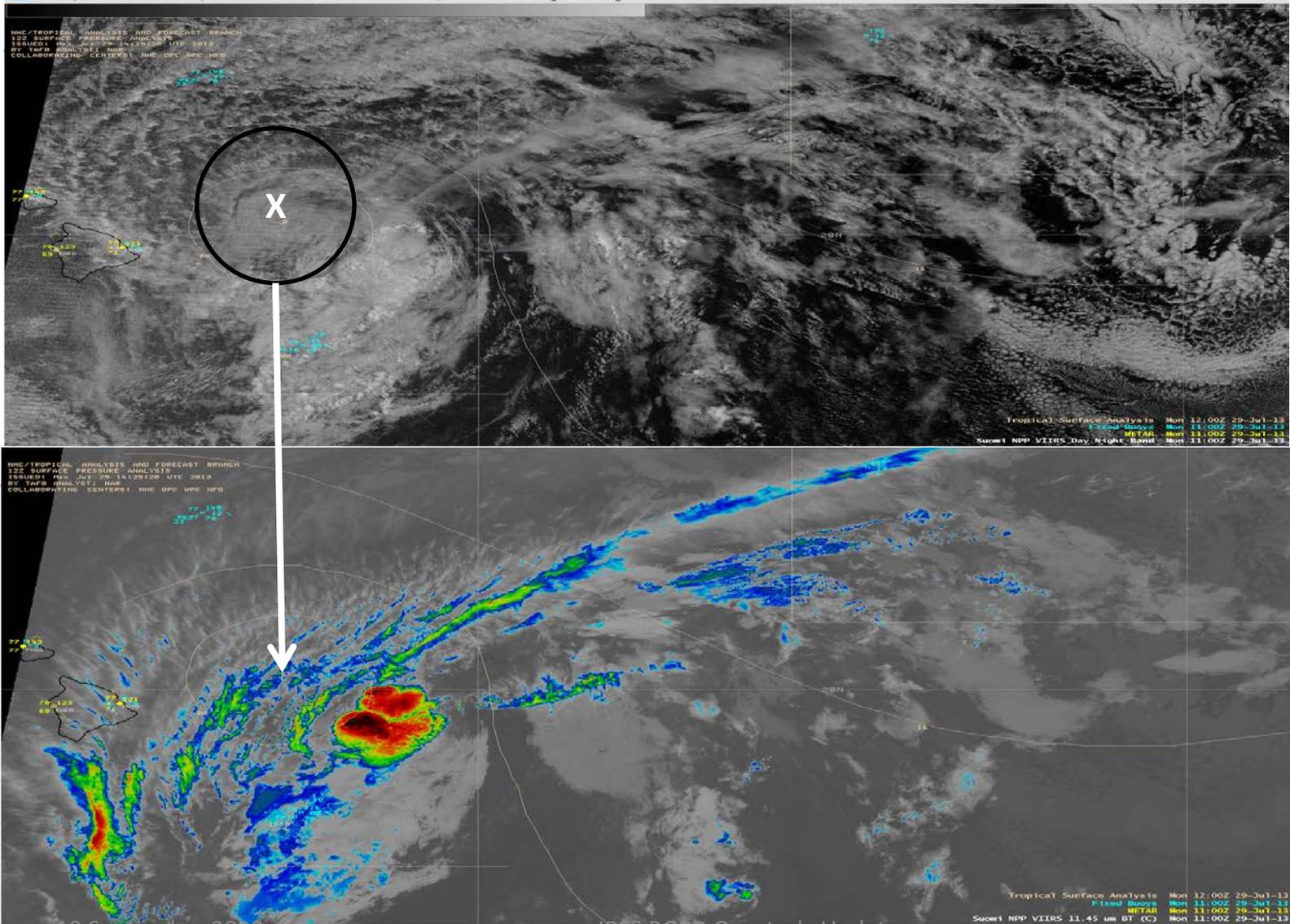


JPSS Program Status

- SNPP operating nominally
- NCEP began incorporating SNPP CrIS satellite data operationally into the Global Data Assimilation System – 20 Aug
- JPSS Program KDP-1 accomplished!
- Spacecraft and instruments are progressing well
- Ground Project working towards CDR in January 2014
- JPSS-1 Mission CDR - February 18-20, 2014 - Detailed schedule laid out
- Works continues on Consolidated Back-Up in WV – May 2014 readiness date

Tropical Storm Flossie

center is further north than expected



DNB

11.45 μm IR

10 September 2013

JPSS PGRR Quarterly Update



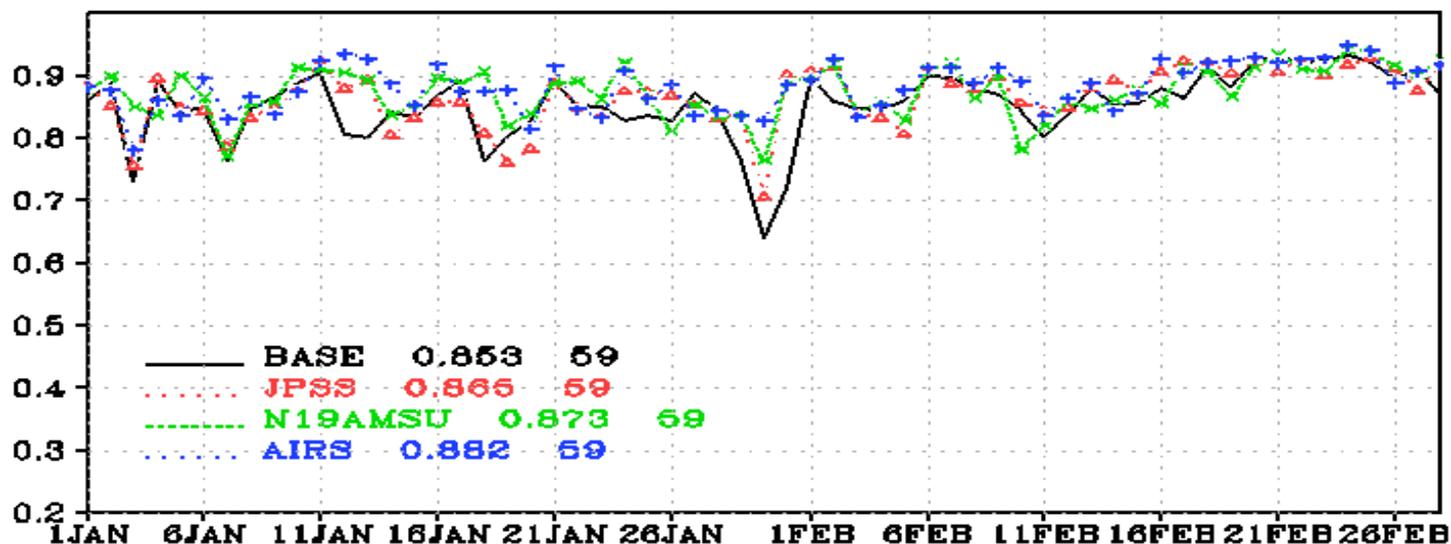
Central Pacific Hurricane Center

Forecast Discussion

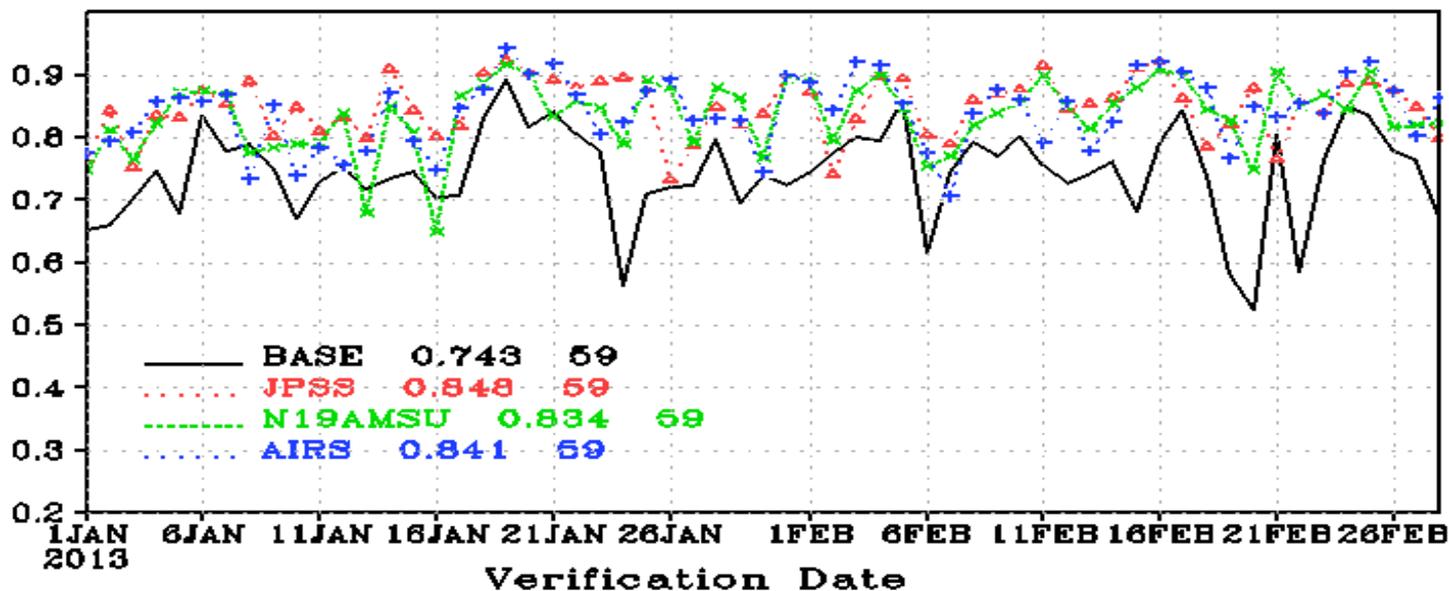
- WTPA41 PHFO 291511 TCDCP1
- TROPICAL STORM FLOSSIE DISCUSSION NUMBER 19
- NWS CENTRAL PACIFIC HURRICANE CENTER HONOLULU HI EP062013
- 500 AM HST MON JUL 29 2013
- THE CENTER OF FLOSSIE WAS HIDDEN BY HIGH CLOUDS MOST OF THE NIGHT BEFORE VIRS NIGHTTIME VISUAL SATELLITE IMAGERY REVEALED AN EXPOSED LOW LEVEL CIRCULATION CENTER FARTHER NORTH THAN EXPECTED. WE RE-BESTED THE 0600 UTC POSITION BASED ON THE VISIBLE DATA. SUBJECTIVE DVORAK ANALYSES CONTINUED SHOW CURRENT INTENSITIES OF 3.0 BUT SATELLITE LOOPS SUGGEST A RAPID WEAKENING TREND WITH THE LOW LEVEL CENTER PULLING AWAY FROM A SMALL AREA OF CONVECTION SOUTHEAST OF THE CENTER. IT IS LIKELY THAT CONTINUED NORTHWEST SHEAR WILL MAINTAIN THIS WEAKENING TREND.
- **THE TRACK HAS BEEN SHIFTED NORTH TO REFLECT THE RE-LOCATED CENTER. THE TRACK GUIDANCE SHIFTED FOLLOWING THE TRACK CHANGE AND WAS CONSISTENT WITH A NEW TRACK FARTHER TO THE NORTH. THE TRACK NOW SHOWS FLOSSIE PASSING OVER MAUI TODAY...OVER OAHU TONIGHT...THEN PASSING SOUTH OF KAUAI EARLY TUESDAY MORNING.** WE EXPECT FLOSSIE TO WEAKEN STEADILY AS IT TRACKS WEST NORTHWEST AND DISSIPATE WITHIN 96 HOURS.

Jim Jung JPSS PGRR Project – 2CY2013

Anomaly Correl: HGT P500 G2/NHX 00Z, Day 5



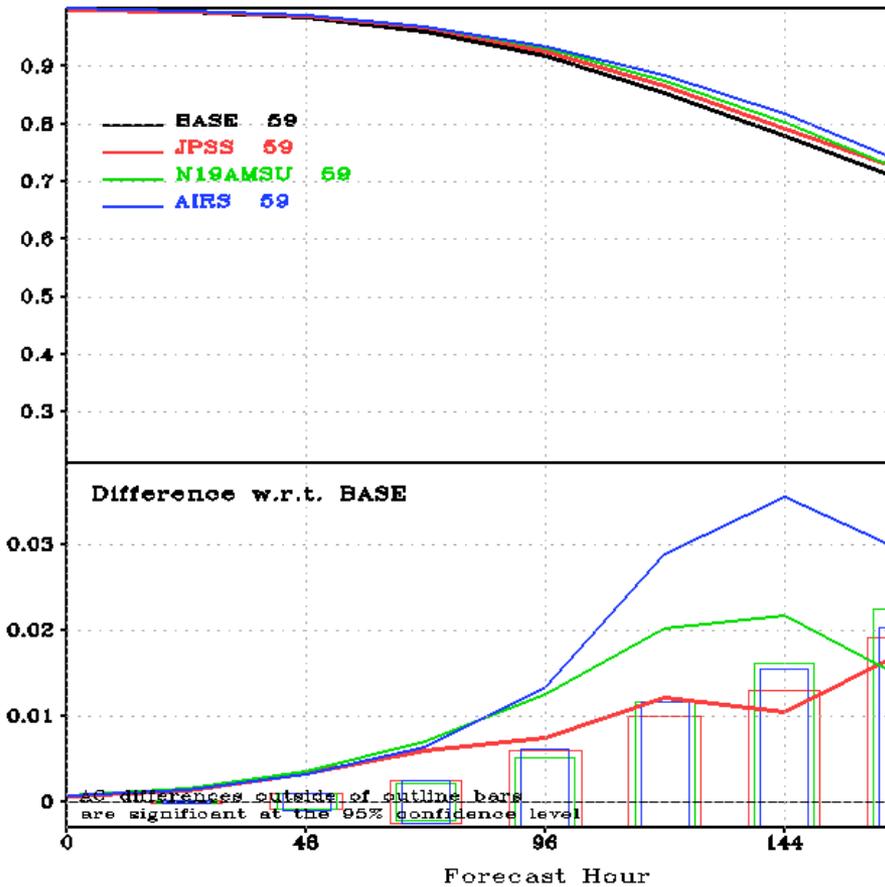
Anomaly Correl: HGT P500 G2/SHX 00Z, Day 5



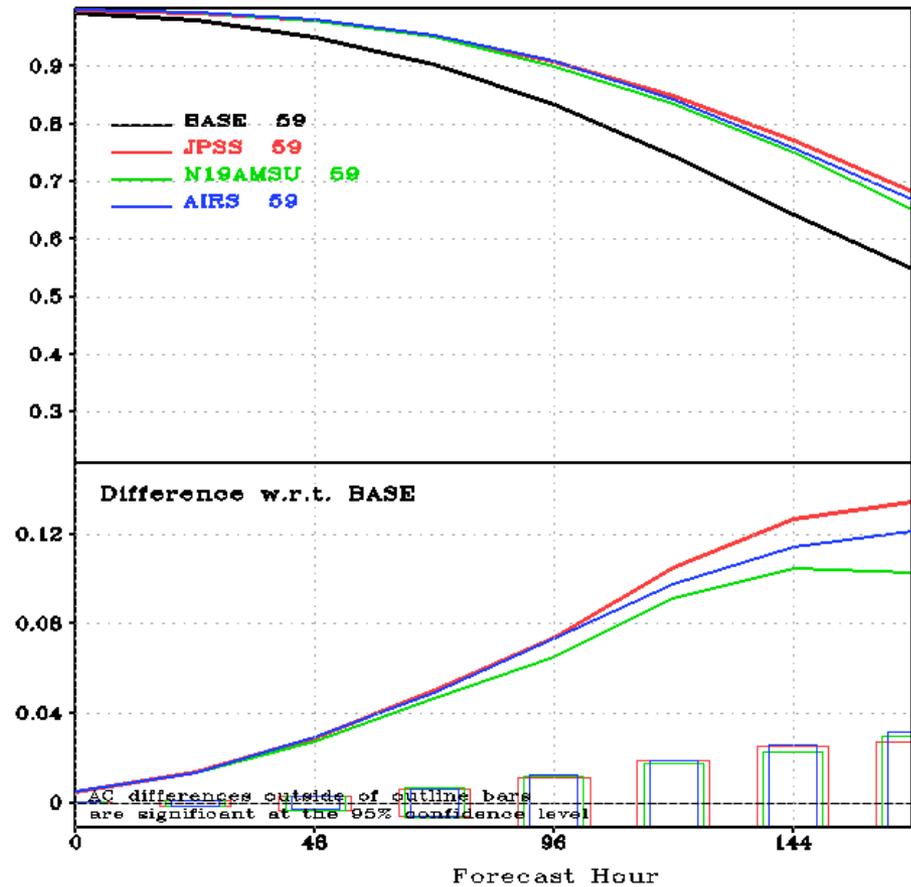


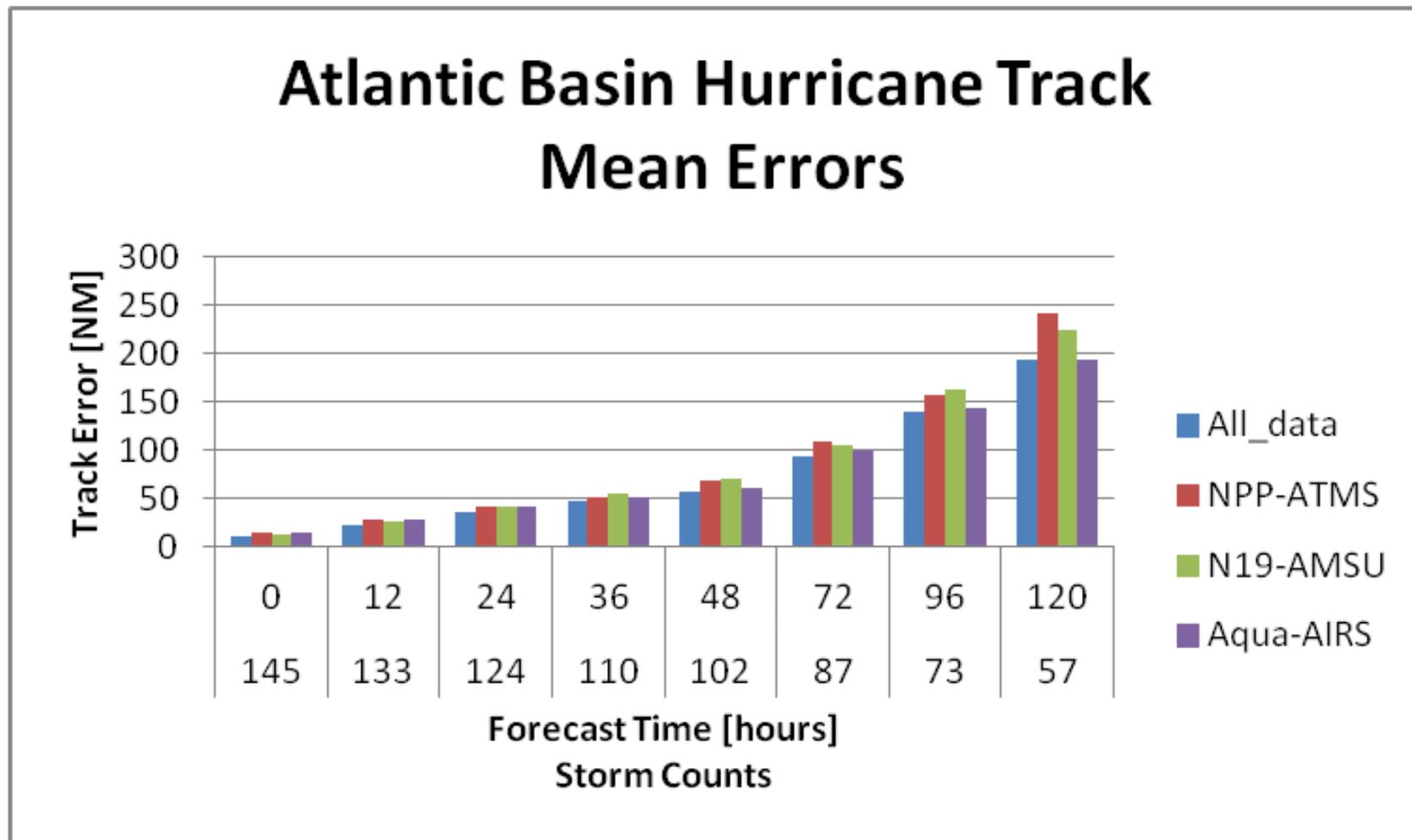
Jim Jung JPSS PGRR Project – 2CY2013

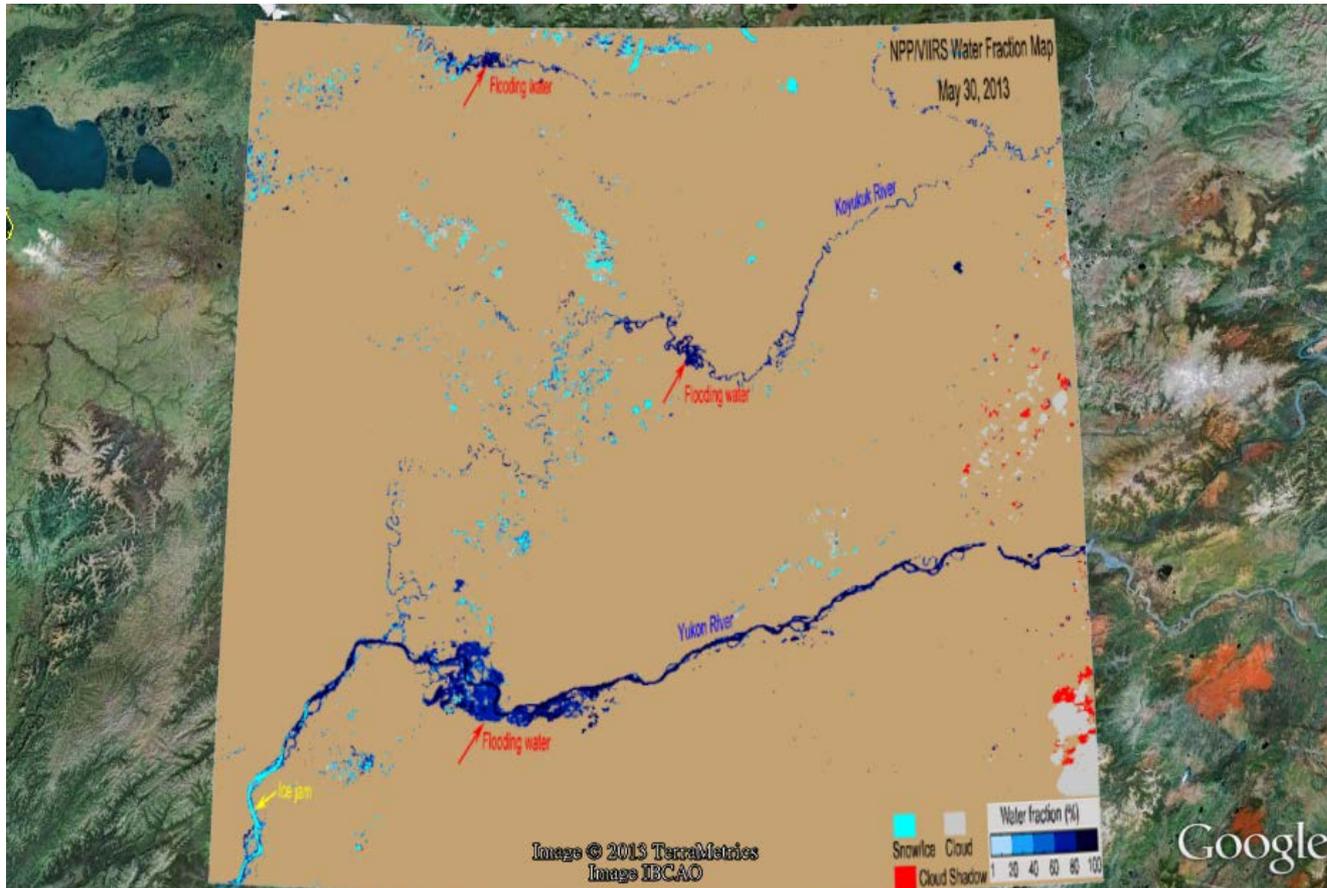
AC: HGT P500 G2/NHX 00Z, 20130101–20130228



AC: HGT P500 G2/SHX 00Z, 20130101–20130228

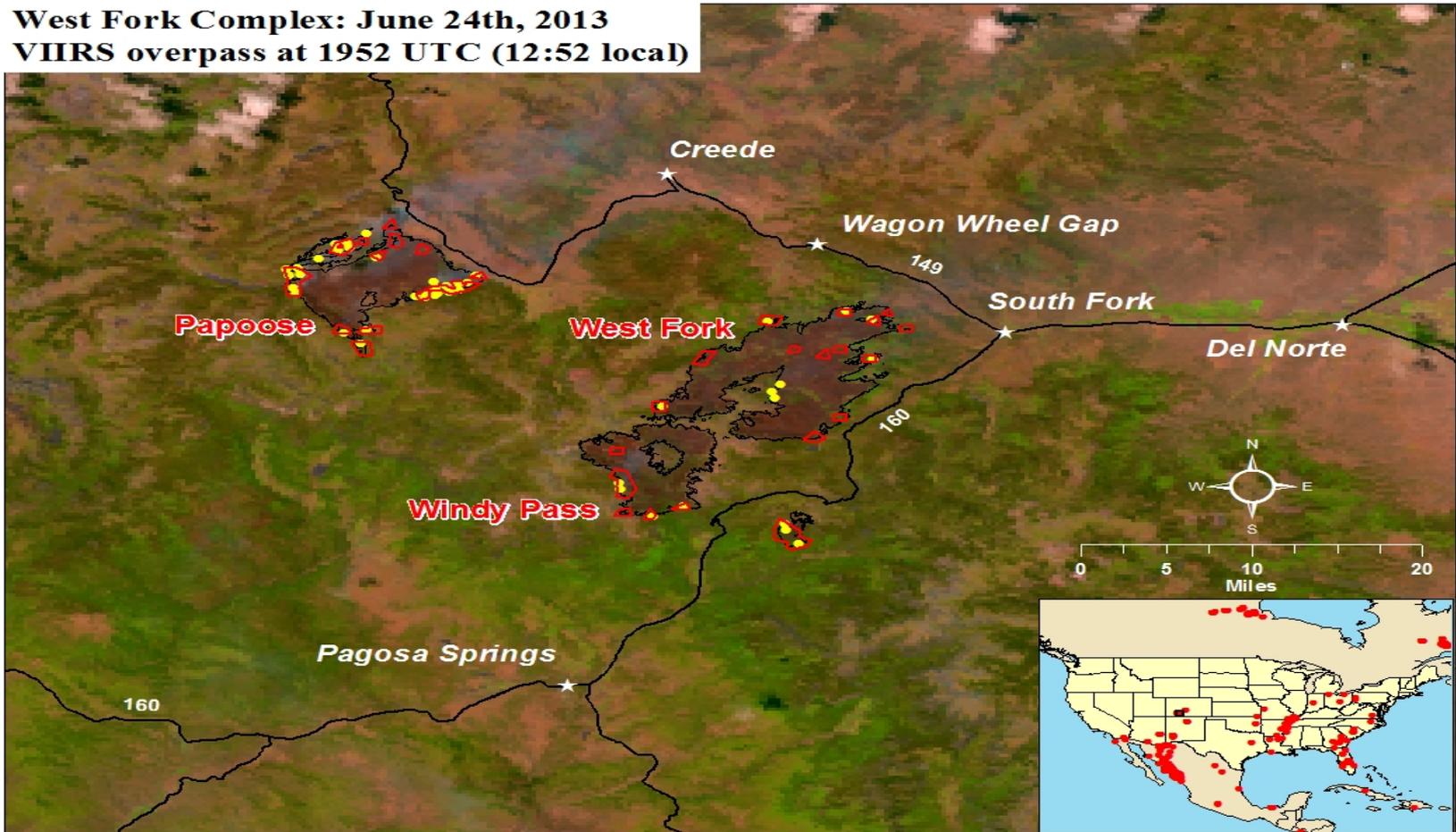






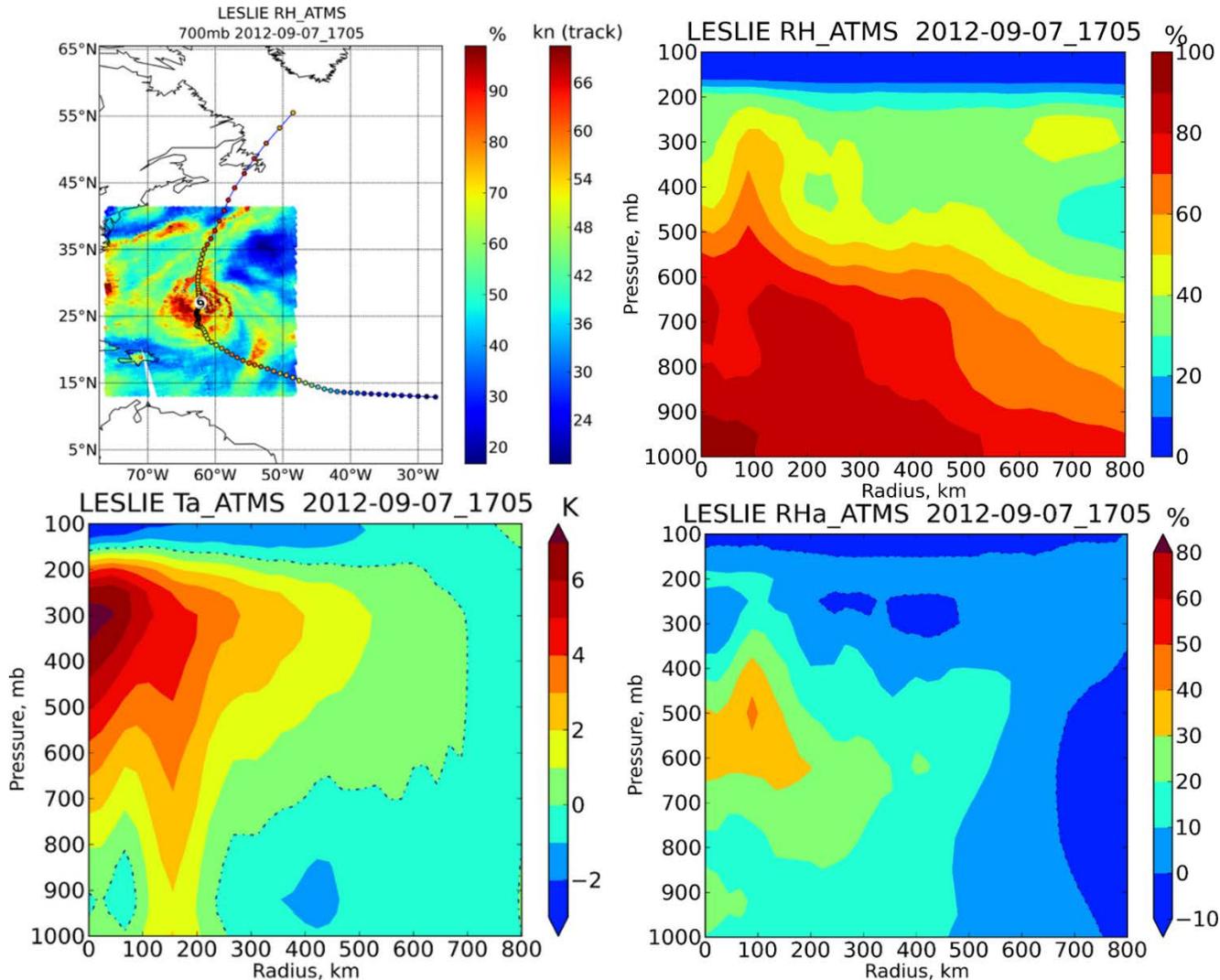
Alaska flooding on Yukon and Koyukuk Rivers
May 30, 2013

West Fork Complex: June 24th, 2013
VIIRS overpass at 1952 UTC (12:52 local)



Remote sensing observations of the West Fork Complex fire. The image is a false color composite using VIIRS' 375m resolution Imagery bands (I-bands) from June 24th, 12:52 local time. The three fires are evident by the distinct burn scars in the center of the image, as is smoke emitted primarily from the Papoose fire. The yellow dots and red polygons denote fire detections from the VIIRS 750m resolution Moderate Bands (M-bands) and the I-bands, respectively. The black polyline is the latest fire area perimeter from the previous night's Night Infrared Operations (NIROPS) flight.

Mark DeMaria JPSS PGRR Project – 2CY2013



ATMS MIRS temperature and moisture retrievals for a case from Hurricane Leslie, including the 700 hPa relative humidity field (RH) (upper left), and radial-height cross sections of RH (upper right), temperature anomaly (lower left) and RH anomaly (lower right).

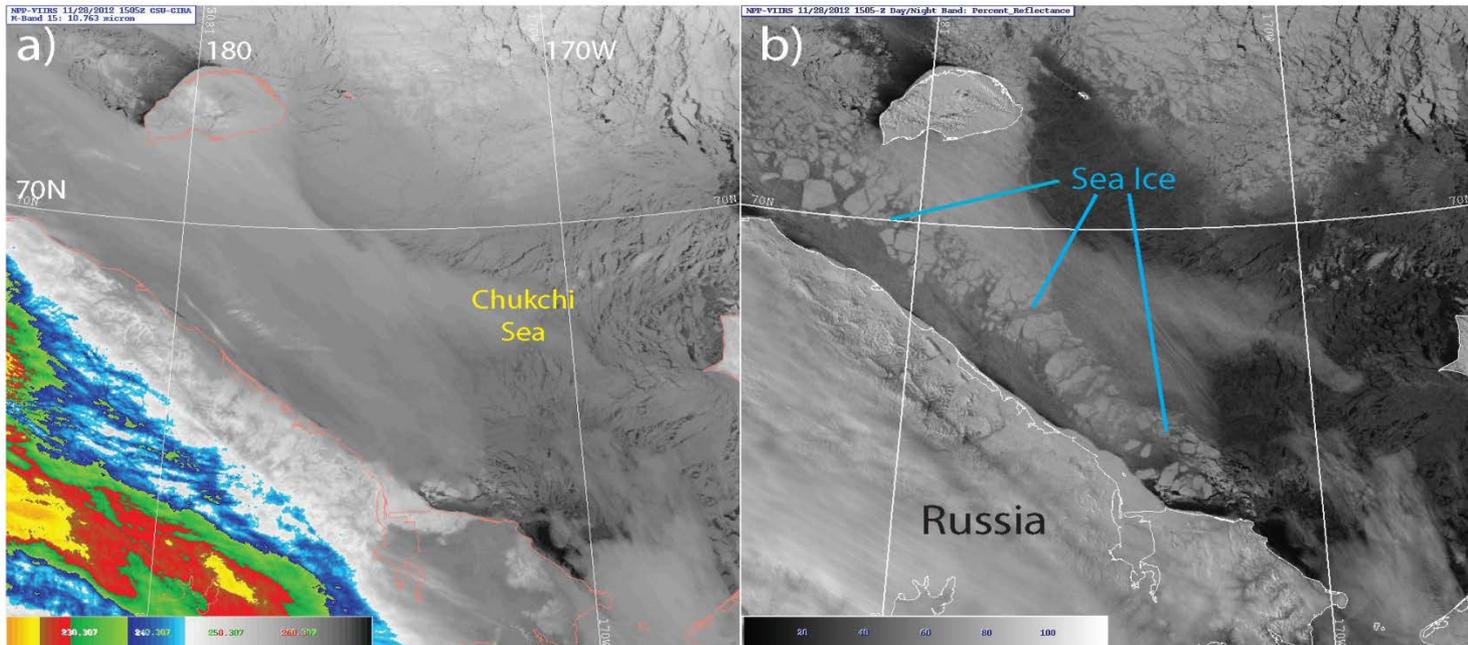


Illustration of a key high-latitude nighttime capability from the VIIRS/DNB—the ability to probe through optically thin clouds to reveal the structure of sea ice. The left panel shows the VIIRS M15 (10.763 μm) view, scaled to provide optimal sensitivity to near-surface temperatures, and the right panel shows DNB lunar reflectance imagery at standard scaling. The opacity of liquid and ice clouds in the infrared serves to obscure the sea ice in the M15 imagery regardless of scaling, whereas the ice is readily apparent with no special scaling in the DNB product. Such capability is now available to the high latitudes throughout the winter season.



JPSS Science Seminars

Past

Date	Presenters	Topic
November 19, 2012	Ivan Csiszar (STAR)	Suomi NPP (SNPP) Visible Infrared Imager Radiometer Suite (VIIRS) Active Fire Data for Fire Management and Fire Weather Applications
December 17, 2012	Liam Gumley and Kathy Strabala (CIMSS)	Status of the Community Satellite Processing Package (CSPP)
January 29, 2013	Carven Scott (NWS) and Eric Stevens (GINA)	Use of SNPP Data to Support Alaska Missions
February 19, 2013	Gary Jedlovec (SPoRT)	Support to NWS WFOs and Alaska
March 27, 2013	Fuzhong Weng (STAR)	SNPP Data Assimilation into TC Models
April 30, 2013	Mike Folmer (NCEP)	SNPP Data use in NCEP HPC, OPC, and NHC
May 29, 2013	Jim Jung (JCSDA)	ATMS/CrIS Data Assimilation into Models
June 26, 2013	Kent Hughes (STAR)	CoastWatch/OceanWatch Proving Ground: VIIRS Ocean Color User Engagement, Quality Assessment, Product Development, Data Distribution Portal, and Chesapeake Bay Ecosystem Modeling



JPSS Science Seminars

Past

Date	Presenters	Topic
July 22, 2013	Elisabeth Weisz and Bill Smith (CIMSS)	SNPP Soundings in AK Region
August 19, 2013	Steve Miller	'Seeing the Light': Exploiting VIIRS Day/Night Band Low Light Visible Measurements in the Arctic



JPSS Science Seminars

Future

Date	Presenters	Topic
September 23, 2013	Chris Elvidge	Estimating flared gas volumes and CO2 emissions with VIIRS data
October 21, 2013	Walter Wolf	Uniform Multi-Sensor Algorithms for Consistent Products
November 18, 2013	Mark DeMaria	Joint JPSS-GOES-R Tropical Cyclone Satellite Data Assimilation Discussion
December 16, 2013	Arunas Kuciauska and Jeff Hawkins	NexSat JPSS Demonstration Project NRL-MRY VIIRS Data and Cal-Val Work
January 27, 2014 (tentative)	Cara Wilson	Facilitating end-user access to VIIRS data
March 17, 2014 (tentative)	Alex Gilerson	Development of Neural Network algorithms for retrieval of chlorophyll-a in the Chesapeake Bay and other coastal waters based on JPSS-VIIRS bands



Upcoming Conferences/Workshops

- **2013 EUMETSAT Meteorological Satellite Conference & 19th AMS Satellite Meteorology, Oceanography, and Climatology Conference:**
 - 16-20 Sep 2013, Vienna Austria
 - Goldberg, Schontz oral presentations
- **NWA Annual Meeting:**
 - 12-17 Oct 2013, Charleston SC
 - Goldberg, Sjoberg, Folmer oral presentations
 - Others: Gerth, Gravelle, Torborg, Line oral presentations
- **AMS Annual Conference:**
 - “Extreme Weather—Climate and the Built Environment: New Perspectives Opportunities, and Tools.”
 - 2-6 Feb 2014, Atlanta GA
 - Goldberg, Sjoberg, Shontz, Reed oral presentations