

GOES-R/JPSS Satellite Liaison Update - National Hurricane Center

Proving Ground All-Hands July 7, 2014

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and

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NHC Proving Ground Activities

- 2013 Proving Ground report completed and approved by the SDEB
- Draft plan for 2014 PG nearly completed
 - Coordinating with M. Folmer on TAFB component
- TOWR-G activities continue
 - First draft AWIPS-2 “Storyboard” with Eric Guillot
- NHC PG officially starts Aug 1
 - Pre-PG feedback already being obtained
 - Hurricane Cristina lightning distribution for RI
 - Tropical wave positioning using RGB products
 - Early season dust outbreak

NHC/HSU Tropical Cyclone Discussion June 10, 2014

CZC MIATCDEP3 ALL
TTAA00 KNHC DDHHMM

TROPICAL STORM CRISTINA DISCUSSION NUMBER 6
NWS NATIONAL HURRICANE CENTER MIAMI FL EP032014
800 PM PDT TUE JUN 10 2014

Cristina is intensifying this evening. The compact central dense overcast has become more circular, and hints of an eye have been apparent in geostationary satellite images. The initial intensity is increased to 55 kt, in agreement with unanimous Dvorak classifications of 3.5/55 kt from TAFB, SAB, and UW-CIMSS ADT.

Although the curved bands beyond the inner-core region remain fragmented, a considerable amount of lightning has been occurring in a rain band located about 120 n mi to the south-southwest of the center. Recent research has documented that lightning in the outer bands of the tropical cyclone circulation is often a precursor of significant intensification. The only apparent factor that could limit strengthening during the next couple of days is mid-level dry air, which has been an issue for Cristina during the past day or so. In about 3 days, Cristina is expected to move into an environment of stronger southwesterly shear and over cooler waters, which should end the strengthening trend and cause the cyclone to weaken. The NHC intensity forecast is slightly higher than the previous one, and is pretty close to the intensity model consensus IVCN.

NHC/TAFB Tropical Weather Discussion June 12, 2014

AXNT20 KNHC 121807
TWDAT

TROPICAL WEATHER DISCUSSION
NWS NATIONAL HURRICANE CENTER MIAMI FL
205 PM EDT THU JUN 12 2014

TROPICAL WEATHER DISCUSSION FOR NORTH AMERICA...CENTRAL AMERICA...GULF OF MEXICO...CARIBBEAN SEA...NORTHERN SECTIONS OF SOUTH AMERICA...AND ATLANTIC OCEAN TO THE AFRICAN COAST FROM THE EQUATOR TO 32N. THE FOLLOWING INFORMATION IS BASED ON SATELLITE IMAGERY...WEATHER OBSERVATIONS...RADAR...AND METEOROLOGICAL ANALYSIS.

BASED ON 1200 UTC SURFACE ANALYSIS AND SATELLITE IMAGERY THROUGH 1715 UTC.

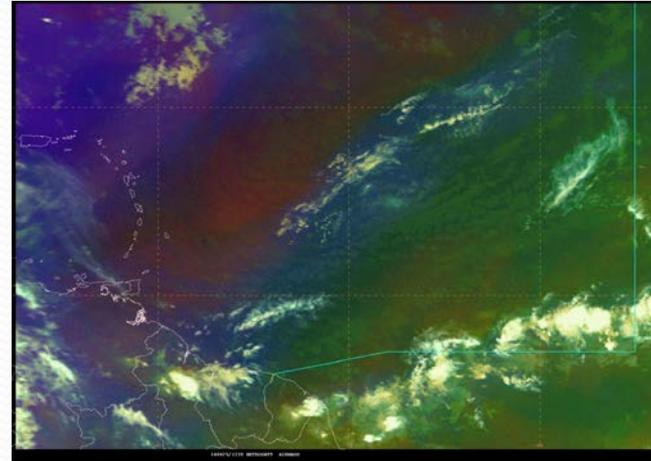
...TROPICAL WAVES...

AN ATLANTIC OCEAN TROPICAL WAVE IS ALONG 34W/35W FROM 10N SOUTHWARD...MOVING WESTWARD 20 KNOTS. THE WAVE HAS BEEN REPOSITIONED BASED ON CURRENT GOES-R PROVING GROUND IMAGERY. CONVECTIVE PRECIPITATION...SCATTERED MODERATE TO ISOLATED STRONG FROM 5N TO 6N BETWEEN 33W AND 36W. ISOLATED MODERATE ELSEWHERE FROM 8N SOUTHWARD BETWEEN 30W AND 40W.

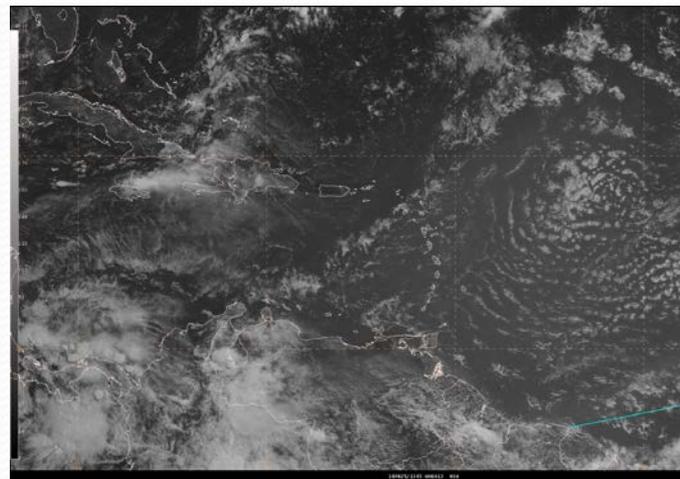
RGB Products Used by TAFB to Identify Saharan Air Layer/Dust Boundary June 25, 2014 (from H. Cobb and J. Aguirre)



SAL Product



RGB Air Mass Product



Visible Imagery

2014 NHC Proving Ground Timeline

<i>Jul 18 2014</i>	Finalize 2014 Plan
<i>Jul 24 2014</i>	Briefing to NHC forecasters
<i>Aug 01 2014</i>	NHC PG begins
<i>Sep 2014</i>	Mid-project review at NHC A. Schumacher visit to NHC
<i>Nov 30 2014</i>	NHC PG ends
<i>Jan 2015</i>	Project Debriefing and final report preparation

2014 NHC Proving Ground Goals

- Maintain routine use of long-term RGB and image combination products
 - Air Mass, Dust, SAL, Pseudo Natural Color, Natural Color
- Provide exposure to new RGB and image products
 - VIIRS Day/Night Band, Convective Storms RGBs
- Continued quantitative evaluations of HIE and lightning-based Rapid Intensification Index
- Determine HSU utility of SRSO data
- Use PG to help decide on NHC operational product suite
 - Compare lightning strike and lightning density products
 - Standard EUMETSAT Dust versus CIRA DEBRA product
- Informal introduction to new products if possible
 - ATMS storm environment soundings
 - Aerosol optical depth

