

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

Proving Ground All-Hands Call Sep 8th , 2014

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and

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2014 NHC PG Activities

- 2014 Proving Ground Demonstration Plan completed and approved by the SDEB
- Began August 1st, ends November 30th
- Demonstrating 15 products
 - Broken down into 5 categories (mature, quantitative, introductory, comparison, and underutilized)
 - Emphasis on providing exposure to new products
- Use PG to help decide on NHC operational product suite
 - Compare lightning strike and lightning density products
 - Standard EUMETSAT Dust versus CIRA DEBRA product

2014 NHC PG Demo Plan

Proving Ground Product	Category	Evaluation Goals
GOES-R natural color	Mature	Included in NHC PG for several years Continue to obtain feedback, time permitting
RGB air mass		
RGB dust		
Saharan Air Layer (SAL)		
Pseudo natural color imagery product		
Hurricane Intensity Estimate (HIE)	Quantitative	Continue to obtain feedback, quantitative verification
Rapid Intensification Index (RII)		
RGB daytime microphysics	Introductory	Emphasize and obtain feedback on tropical applications – all were introduced in late 2013, little exposure
RGB nighttime microphysics		
RGB convective storms		
S-NPP Day/Night Band		
CIRA RGB Dust (DEBRA)	Comparison	Encourage forecasters to display comparison products w/ originals, provide strengths and weaknesses
Lightning density		
Super rapid scan imagery	Underutilized	Continue to be included, modified, or given less emphasis?
Tropical overshooting tops (TOT)		

Feedback – RSO Imagery

Date/Time: Tue Aug 19 2014 12:50:21 GMT-0400 (EDT)

Desk: HSU Pacific

Satellite Product: SRSO Imagery

Date/Time of Satellite Product: 15:30 to 16:30 UTC

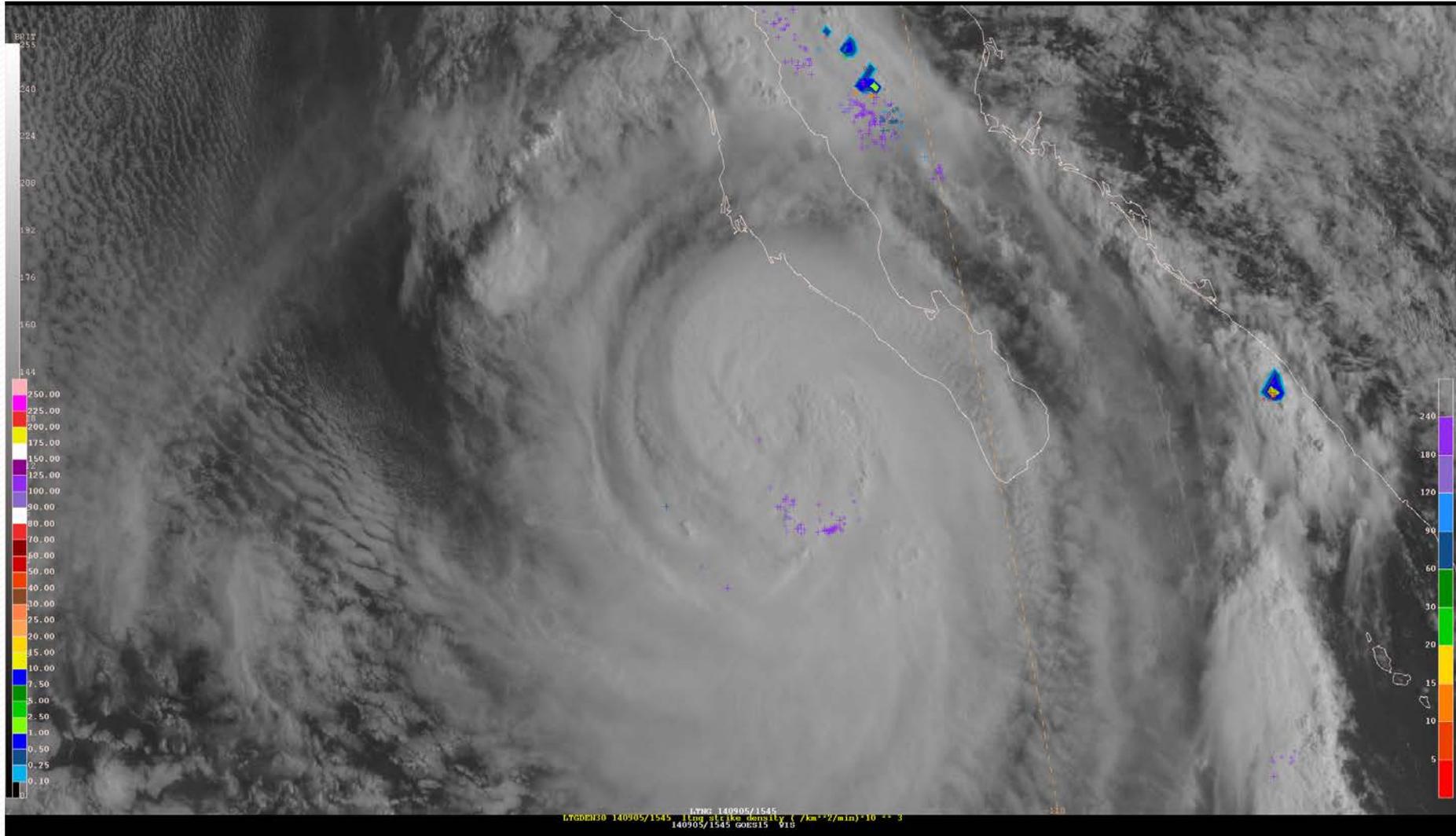
Forecaster: Several HSU

Feature of interest: tropical storm Lowell

Use: TC Analysis

Additional information/comments: Three HSU forecasters provided input on the Lowell loop. ***The higher resolution data may have utility for center fixing in weaker systems like Lowell, where it was a little easier to see the low cloud motion. These loops will also have utility for public outreach.*** The 1 min data will not replace the 15 min interval loops needed to monitor the mesoscale storm behavior unless the display technology can load very long loops and with a very fast looping speed.

GLD360 strikes and lightning density contours - Norbert



Feedback – Lightning Products

Date/Time: Fri Sep 05 2014 12:26:52 GMT-0400 (EDT)

Desk: HSU Atlantic

Satellite Product: Lightning Density product

Date/Time of Satellite Product: Sept 5, 2014 15 UTC

Forecaster: Todd Kimberlain

Feature of interest: ***Comparing lightning density and strike*** locations for Hurricane Norbert.

Use: TC Analysis

Additional information/comments: ***Filled contours provide useful quantification of lightning strike data.*** Lightning strikes were limited for Norbert, so some adjustments would be needed to contour intervals for these types of cases. ***Contour data should optimally be overlaid on strike data.*** Contours better depict tendencies. ***The units probably need adjustment*** for the mesoscale. Maybe strikes per min per 10 km**2.

2014 NHC Proving Ground Timeline

Aug 01 2014

NHC PG begins

Sep 17 2014

Mid-project review at NHC

Sep 16-18 2014

A. Schumacher visit to NHC

Nov 30 2014

NHC PG ends

Jan 2015

Project Debriefing and final report preparation