



RAINFALL RATE / QPE USAGE AT HPC, TAFB, AND SAB

Michael J. Folmer¹

Contributors: Andrew Orrison², Jessica Schauer³, John Simko⁴, Bob Kuligowski⁵

¹University of Maryland/ESSIC/CICS, ²NOAA/NWS/HPC,

³NOAA/NWS/NHC/TAFB, ⁴NOAA/NESDIS/SAB, ⁵NOAA/NESDIS/STAR

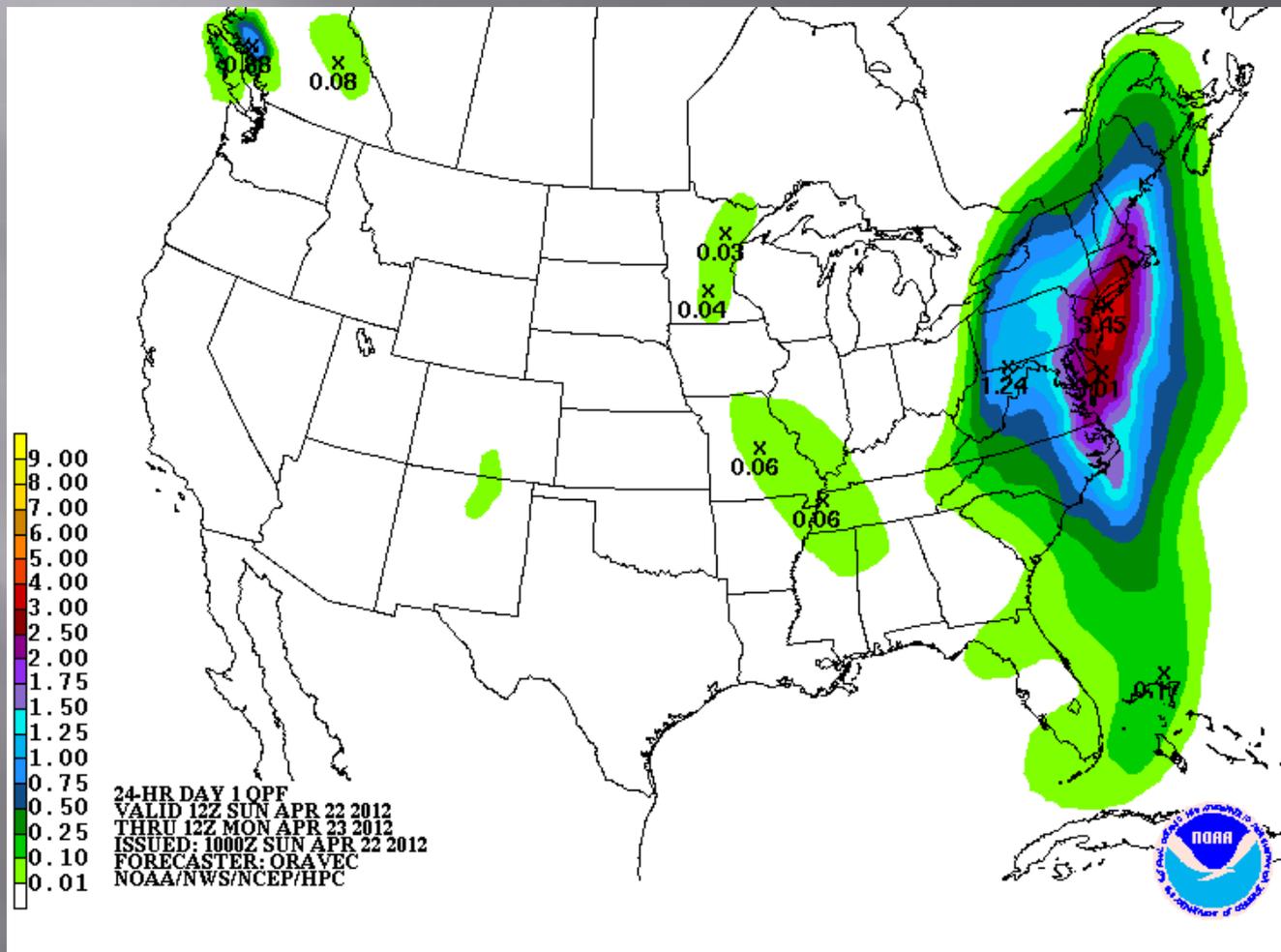
05/01/12

NOAA Satellite Sciences Week

HPC QPF Operations

- ▣ Current QPF Products Issued at HPC:
 - 91e Product (18z-00z and 06z-12z) 6-hour QPF
 - Day 1-3 QPF (6-hour increments)
 - Day 4 and 5 QPF (Medium Range Desk – 6 hour increments)
 - Excessive Rainfall Graphics (Day 1-3)
 - QPF PFD – NCEP Precipitation Forecast Discussion
- ▣ Current Method for QPF verification:
 - Radar Estimates
 - CoCoRaHS
 - Stage 4 River Forecast Center (RFC)

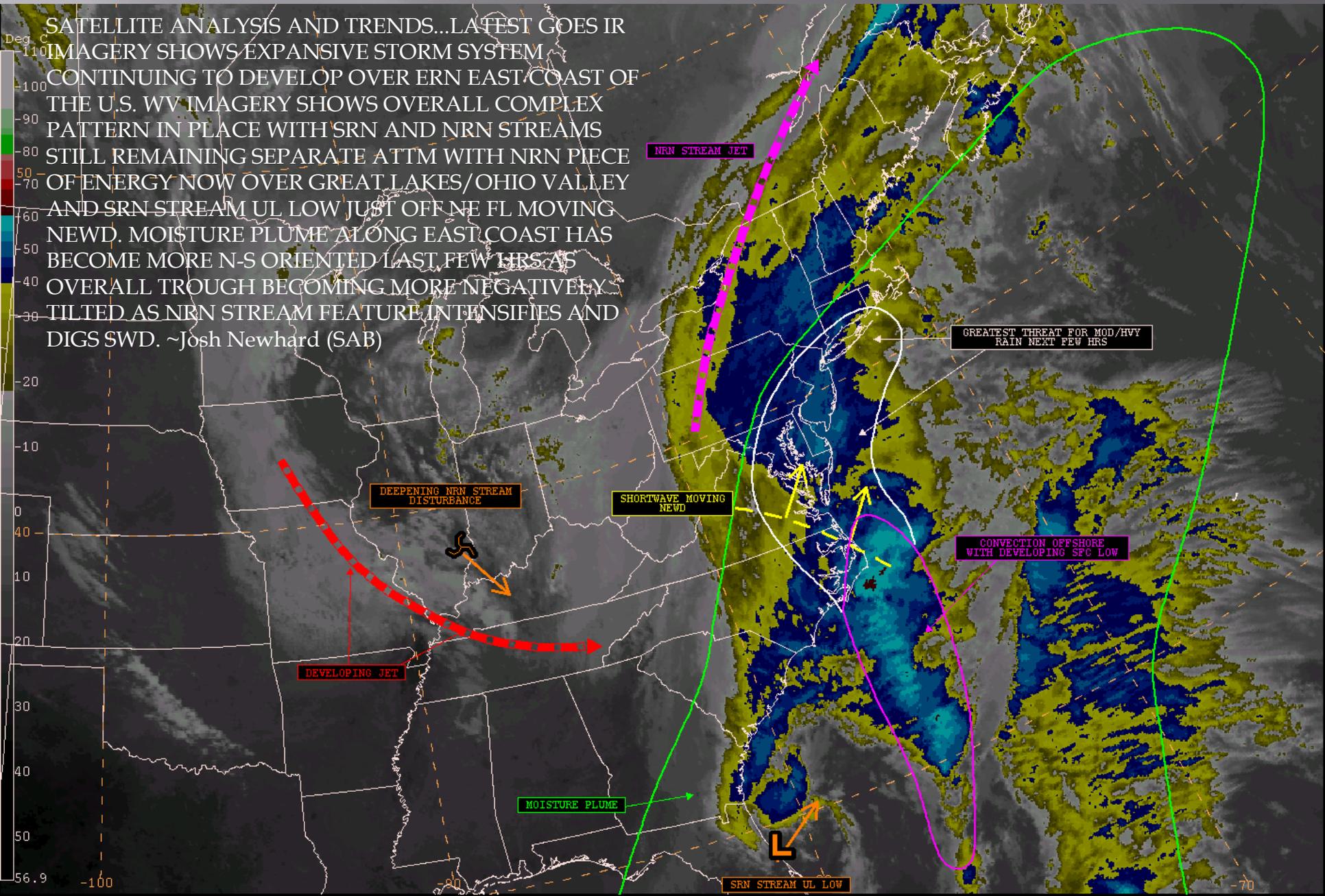
HPC Day 1 QPF Product



SAB Precipitation Desk

- ▣ **Satellite Precipitation Estimates (SPENES) Product**
- ▣ **Give Satellite Briefings to the HPC Day 1 QPF Desk (6 briefings a day, every four hours)**
 - Excessive Rainfall Potential
 - 6 hour QPF
- ▣ **Give Satellite Briefings to the HPC Basic Weather Desk (twice a day)**
 - Highlight Shortwave Features
 - Upper-level Jet Features
 - Moisture Plumes

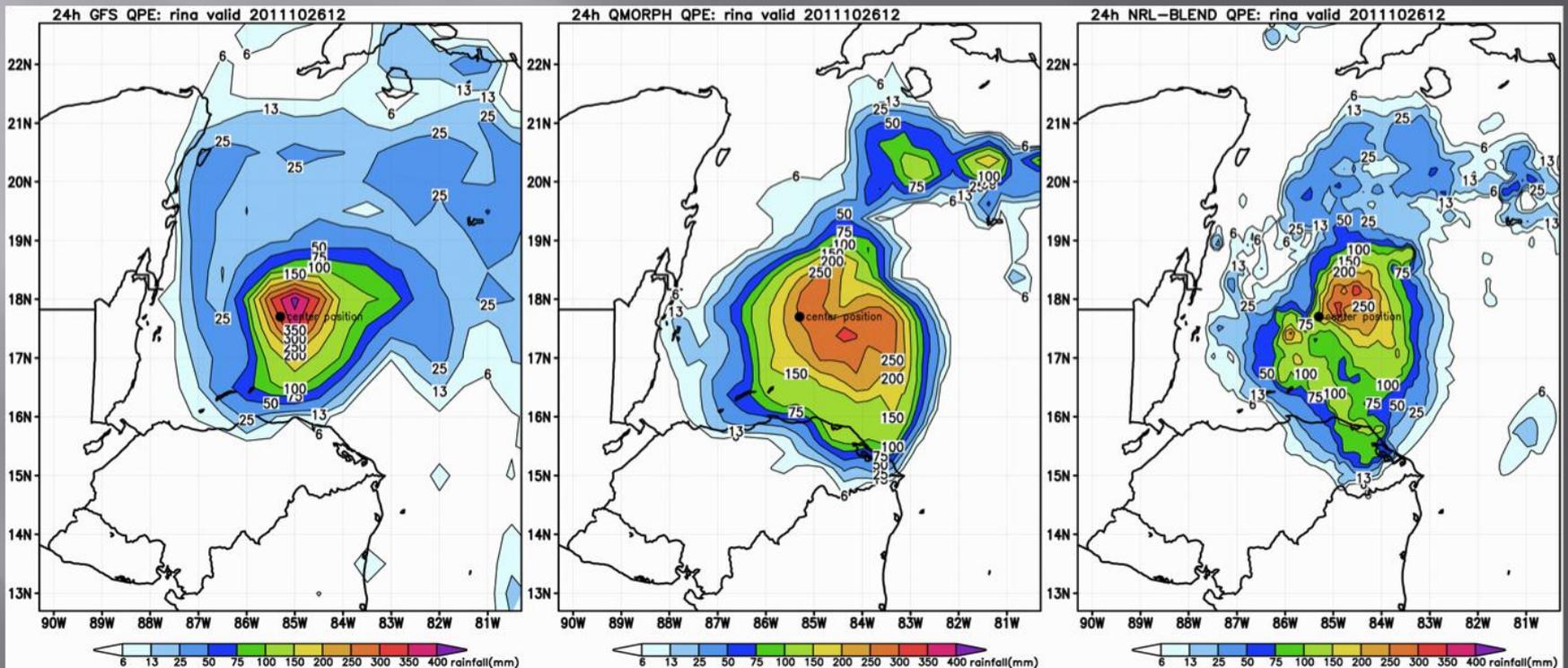
SATELLITE ANALYSIS AND TRENDS...LATEST GOES IR
IMAGERY SHOWS EXPANSIVE STORM SYSTEM
CONTINUING TO DEVELOP OVER ERN EAST COAST OF
THE U.S. WV IMAGERY SHOWS OVERALL COMPLEX
PATTERN IN PLACE WITH SRN AND NRN STREAMS
STILL REMAINING SEPARATE ATTM WITH NRN PIECE
OF ENERGY NOW OVER GREAT LAKES/OHIO VALLEY
AND SRN STREAM UL LOW JUST OFF NE FL MOVING
NEWD. MOISTURE PLUME ALONG EAST COAST HAS
BECOME MORE N-S ORIENTED LAST FEW HRS AS
OVERALL TROUGH BECOMING MORE NEGATIVELY
TILTED AS NRN STREAM FEATURE INTENSIFIES AND
DIGS SWD. ~Josh Newhard (SAB)



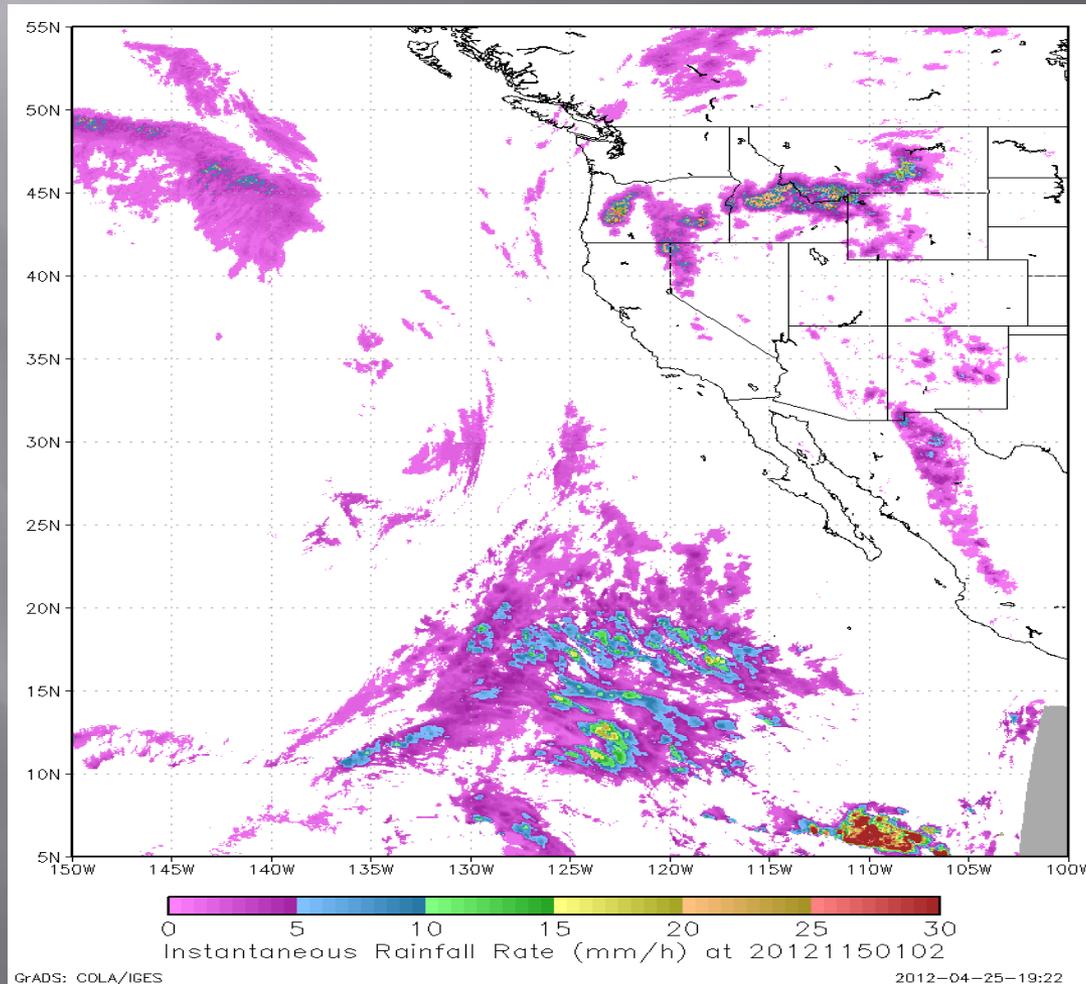
TAFB Tropical Rainfall Products

- ▣ Operational and Experimental Satellite Rainfall Estimate Text Products
- ▣ Experimental 6-hr & 24 hr Rainfall Estimate Graphics
- ▣ Experimental 24-hr Rainfall Forecast Graphics
- ▣ Griffith-Woodley Satellite Rainfall Estimation Technique – used for current operational text product
- ▣ New products use:
 - NRL-Blend Satellite Rainfall Estimate
 - QMORPH Satellite Rainfall Estimates from CPC

TAFB Experimental Rainfall Graphics Hurricane Rina (2011)



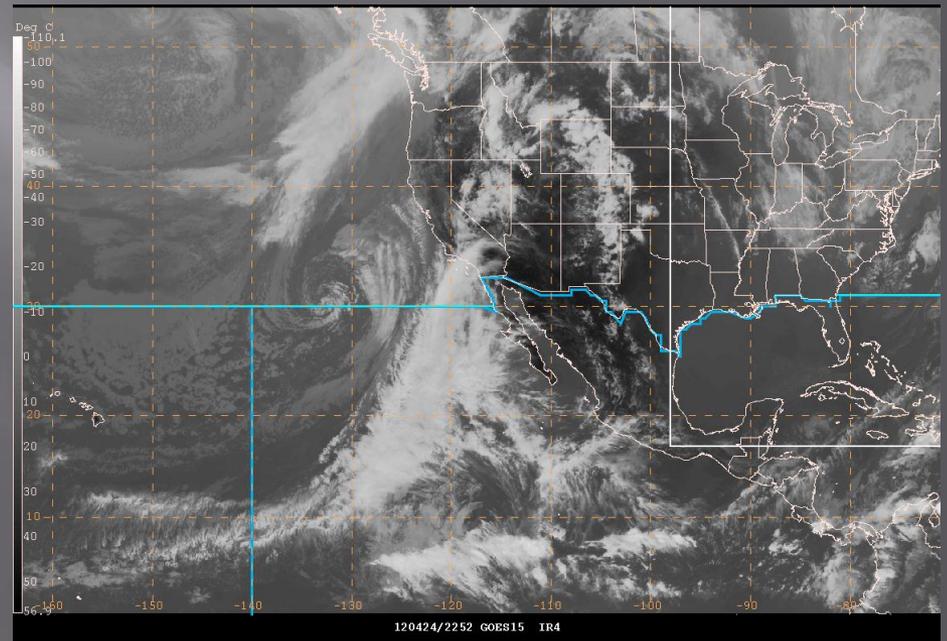
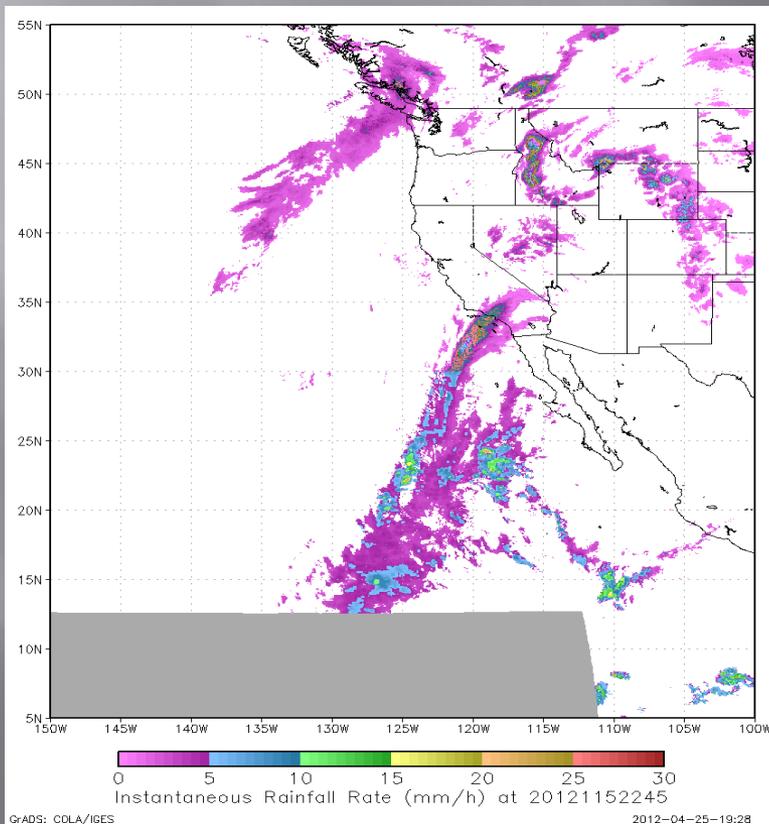
GOES-R Rainfall Rate Product HPC Perspective



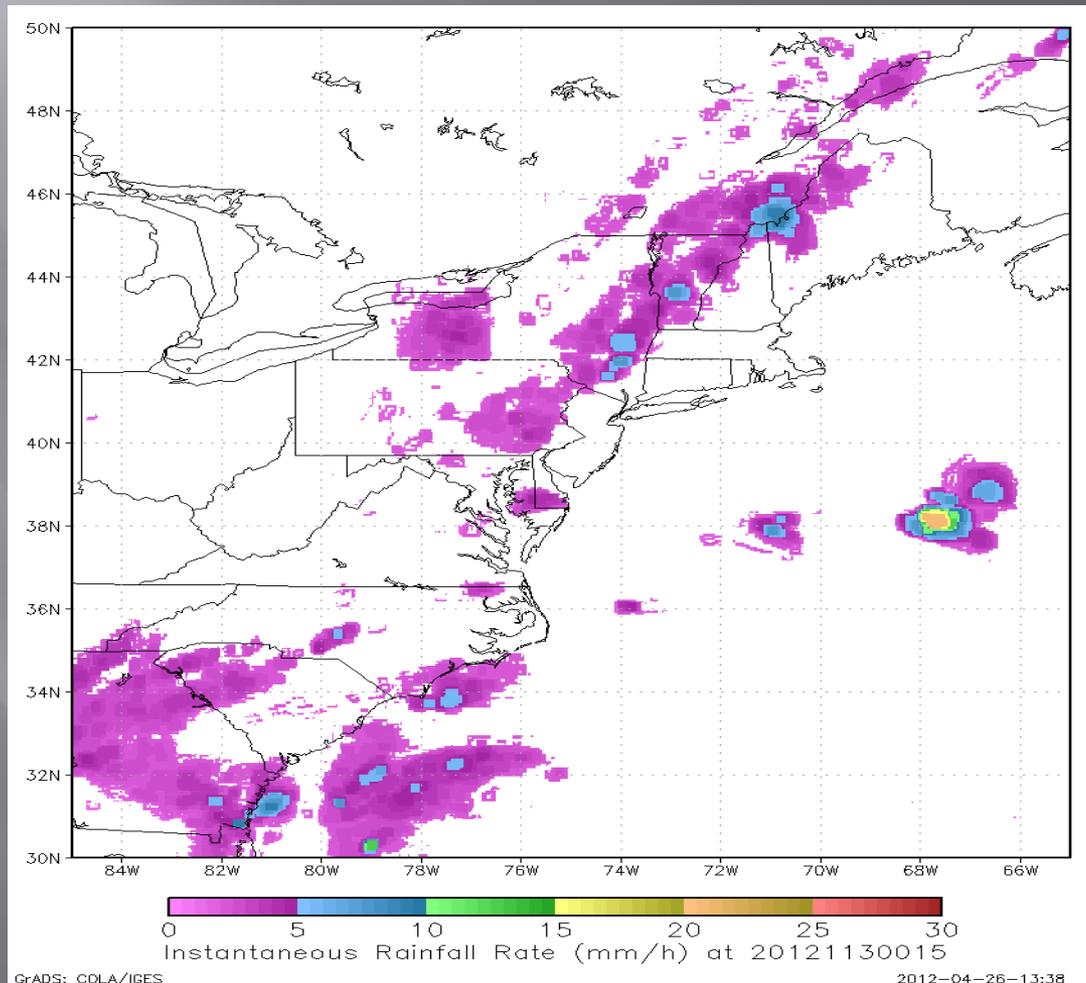
GOES-R Rainfall Rate/IR Comparison

RAINFALL RATE

GOES-15 INFRARED

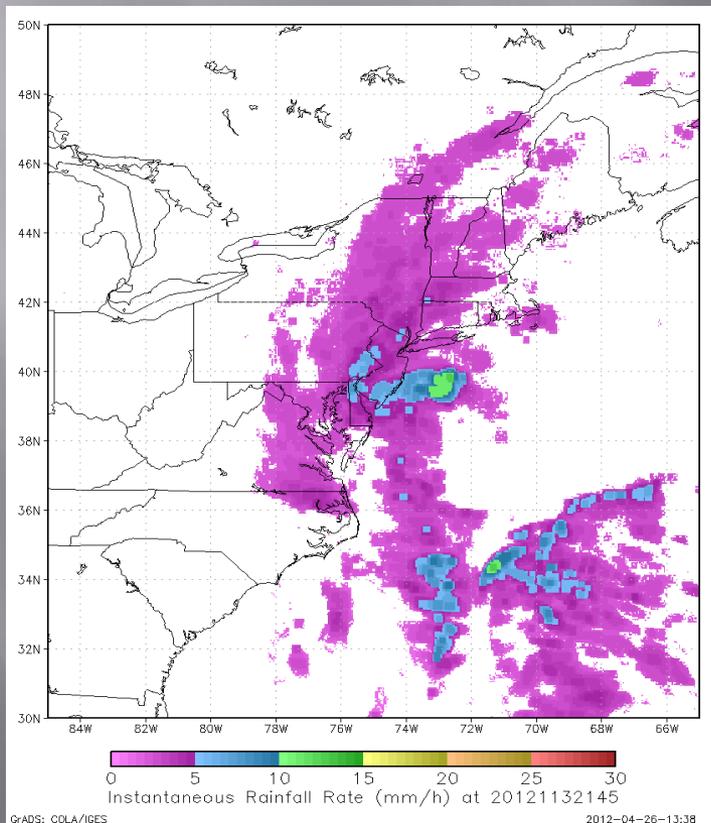


GOES-R Rainfall Rate Product HPC Perspective

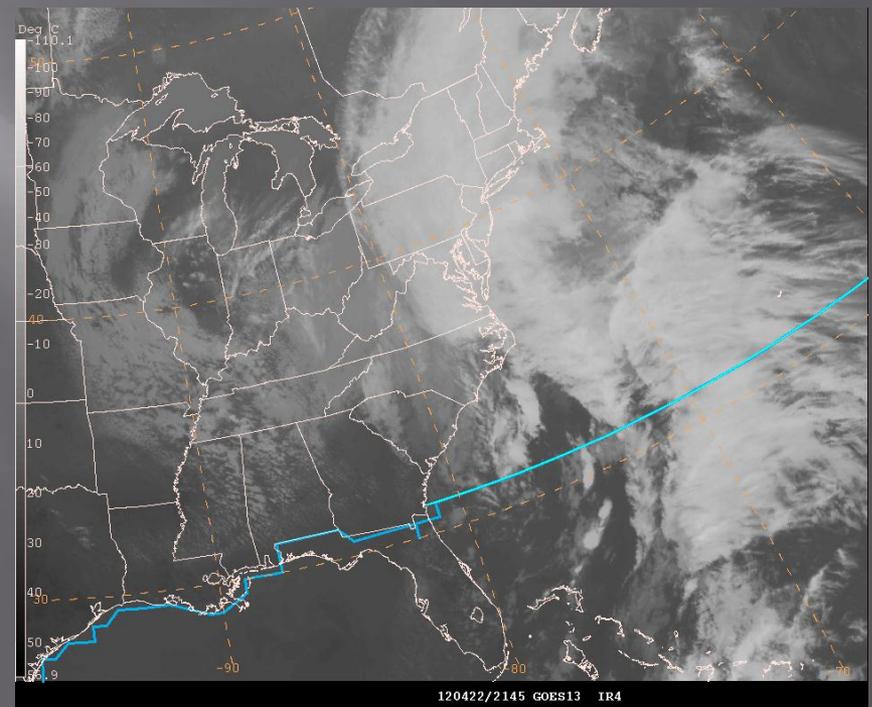


GOES-R Rainfall Rate/IR Comparison

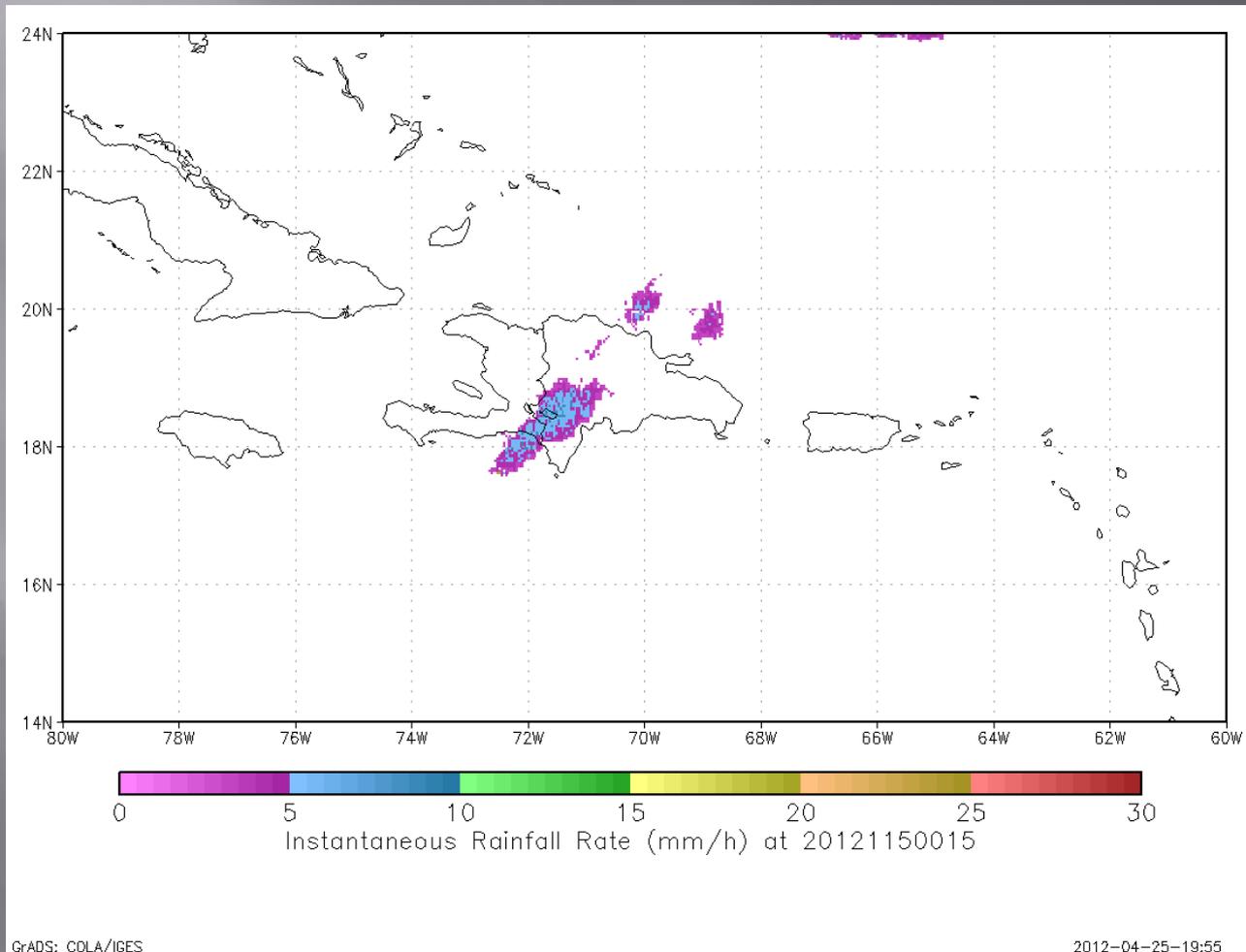
RAINFALL RATE



GOES-15 INFRARED

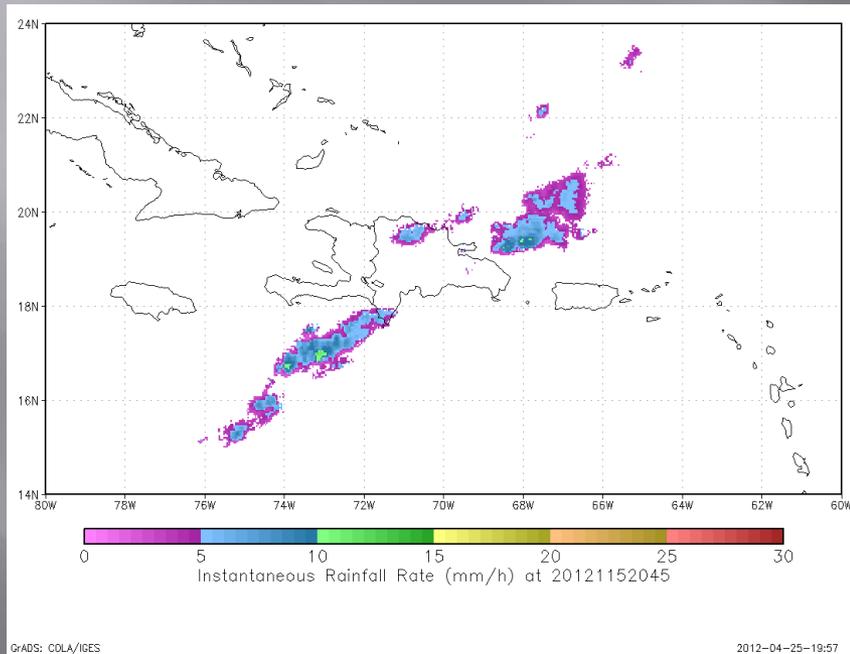


GOES-R Rainfall Rate Product TAFB Perspective

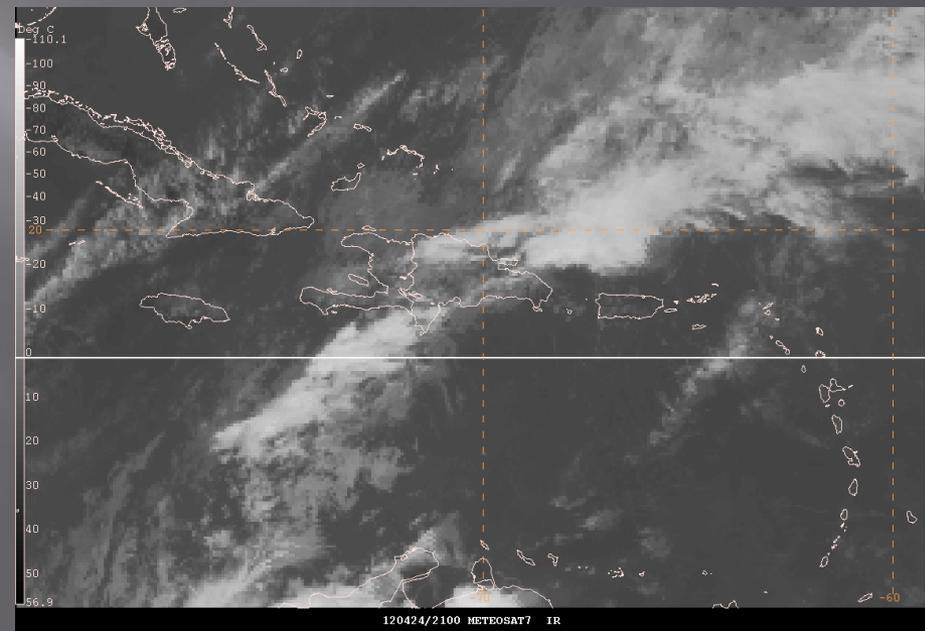


GOES-R Rainfall Rate/IR Comparison

RAINFALL RATE



GOES-15 INFRARED



Questions?