



McIDAS Users' Group (MUG) Meeting

Madison, Wisconsin (October 25-26, 2010)



McIDAS at the National Hurricane Center



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National Hurricane Center (NOAA/NWS)



Presentation Outline



- Our mission and vision statements
- Area of Responsibility (AOR)
- Satellite data usage at NHC
- Our operational framework (McIDAS)
- Specialized Projects
- Future Direction
- Questions / Comments



Hurricane Igor on Sep 14, 2010



Our Mission / Vision Statements



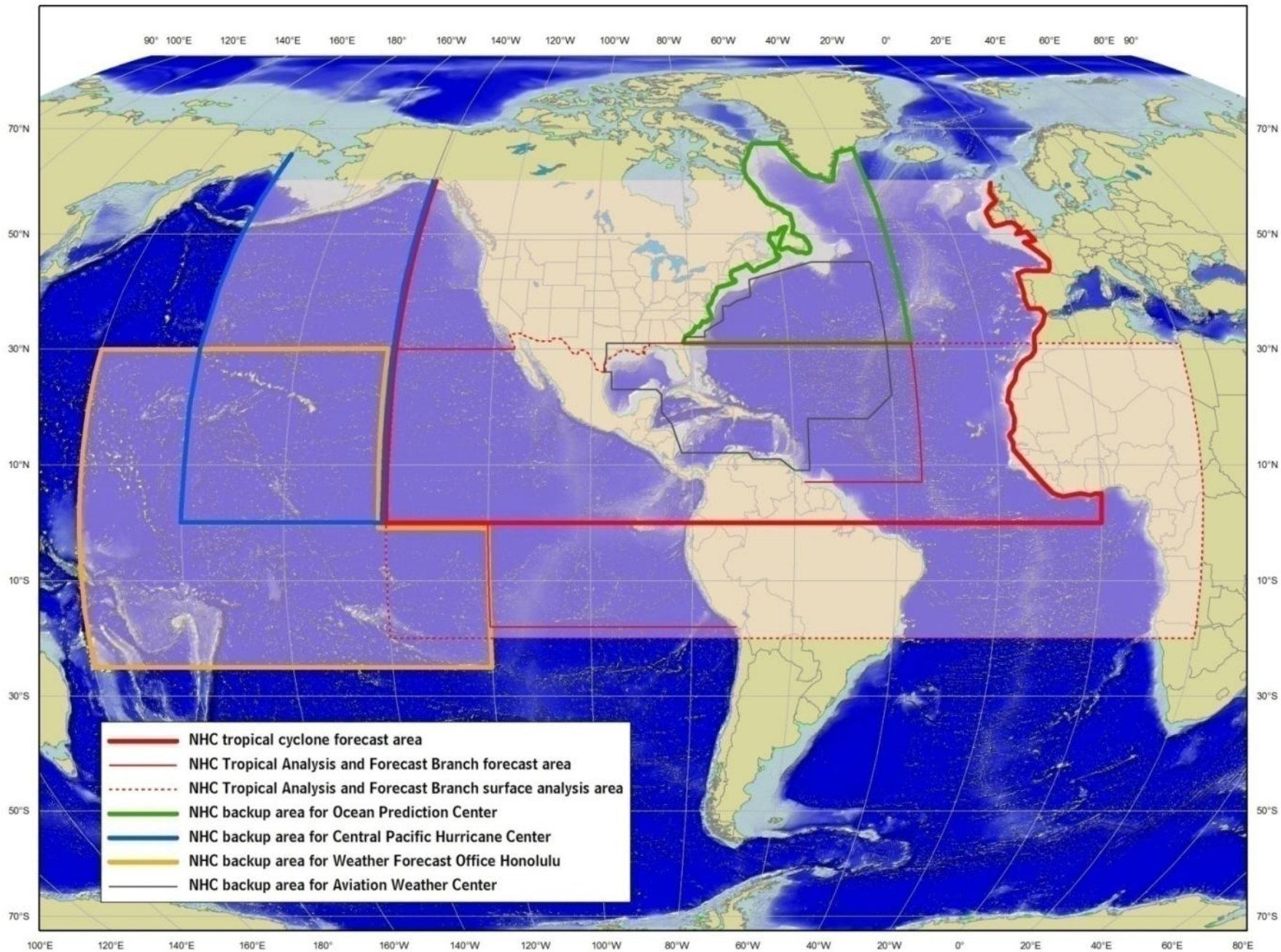
Mission Statement (What We Do):

To save lives, mitigate property loss, and improve economic efficiency by issuing the best watches, warnings, forecasts and analyses of hazardous tropical weather, and by increasing understanding of these hazards through global outreach.

Vision Statement (What We Hope to Achieve):

To be America's calm, clear and trusted voice in the eye of the storm, and, with our partners, enable communities to be safe from tropical weather threats.

NHC's Area of Responsibility (AOR)



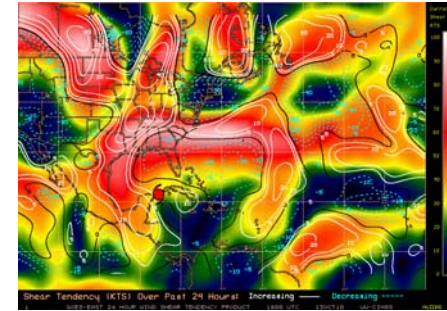
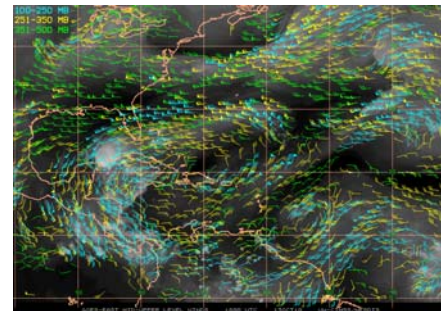
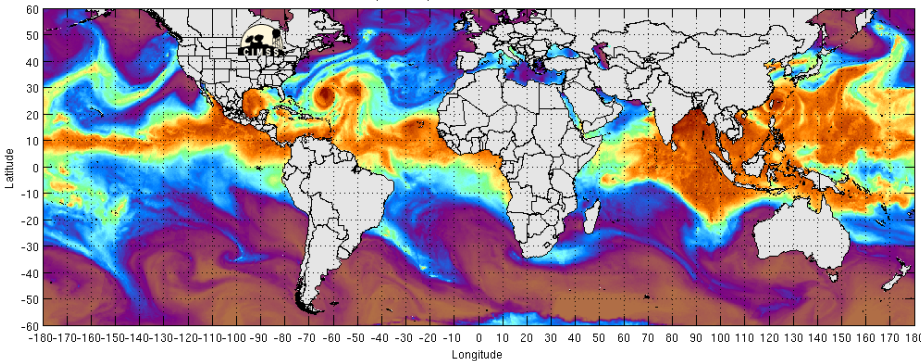


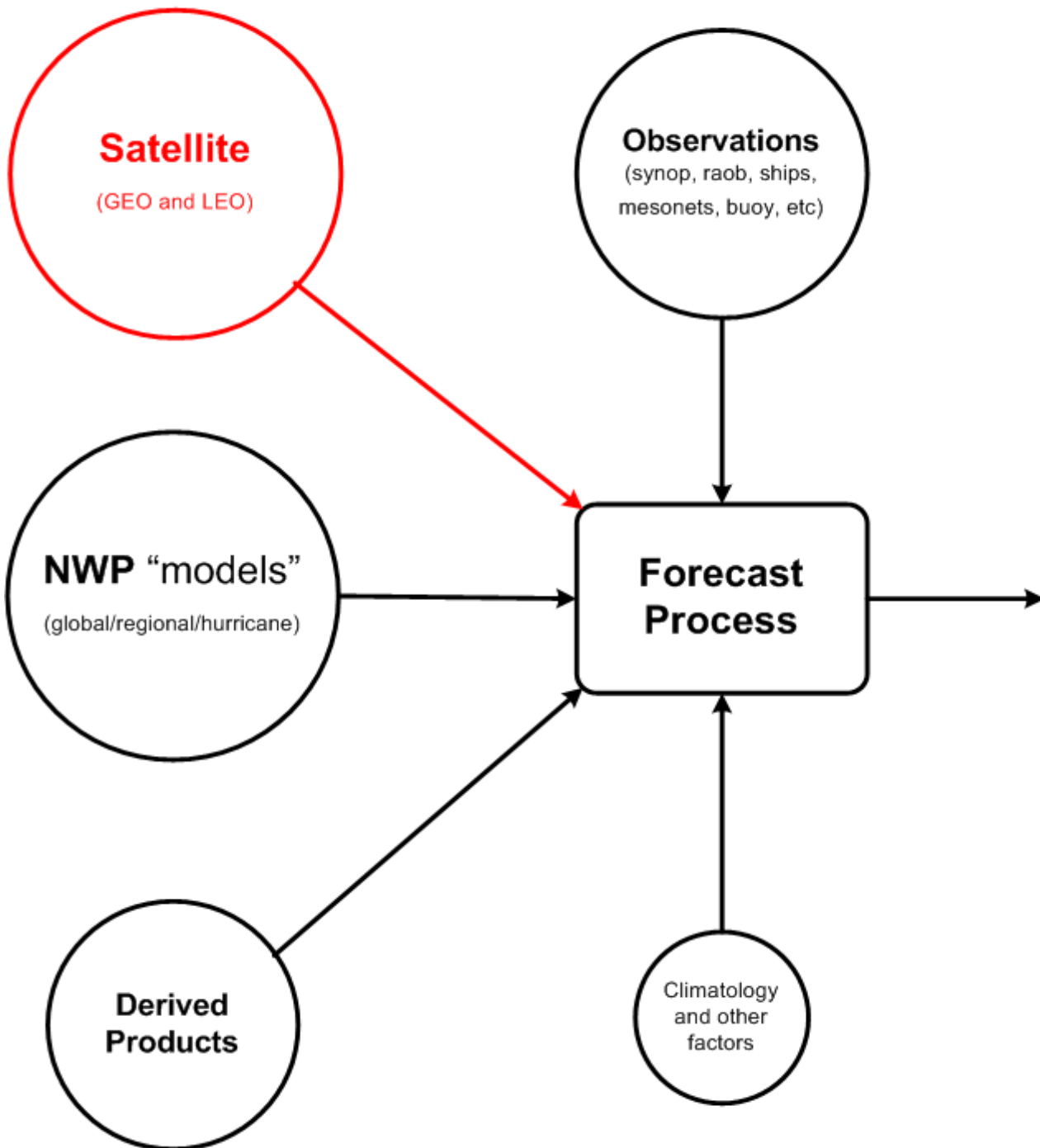
Satellite Use at NHC



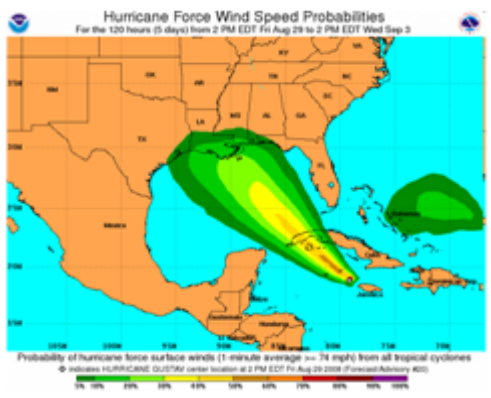
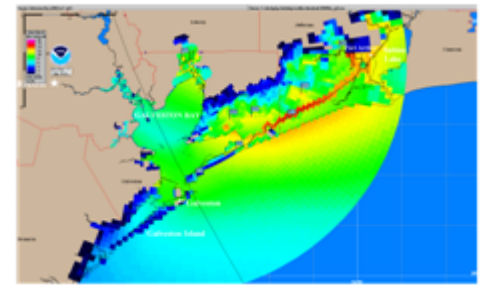
- Tropical Cyclone monitoring and analysis
- Dvorak technique
- Determine synoptic scale patterns
 - Satellite winds, TPW, wind shear, etc
- Storm scale patterns
 - microwave analysis and intensity based algorithms
- Intensity predictor and other model based algorithms
 - Rapid intensification indicator, eyewall replacement cycle, annular hurricane detection, etc.

Morphed composite: 2010-09-18 16:00:00 UTC

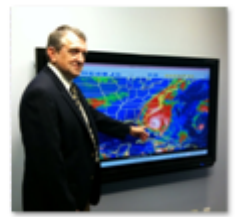


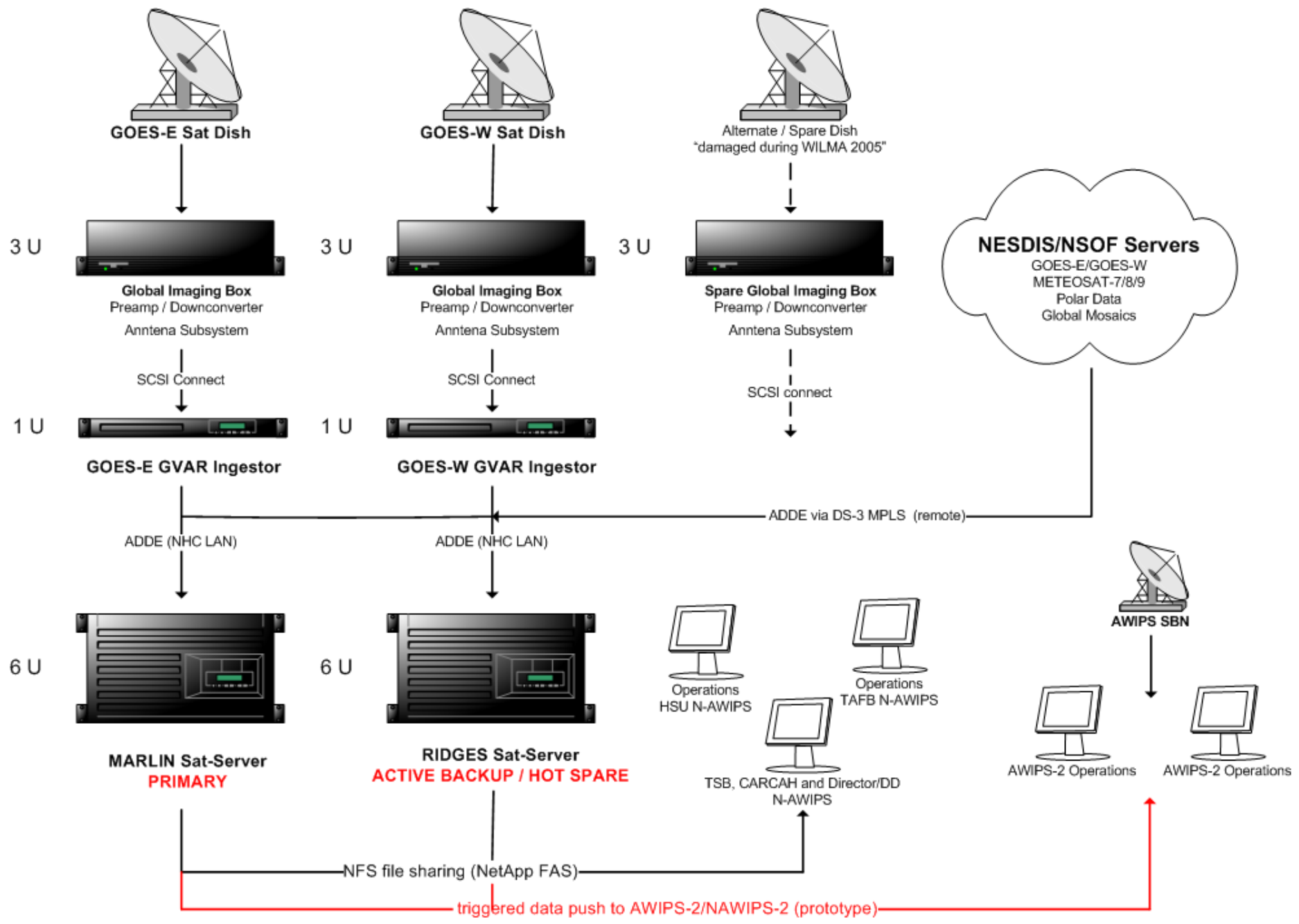


Decision Based Products

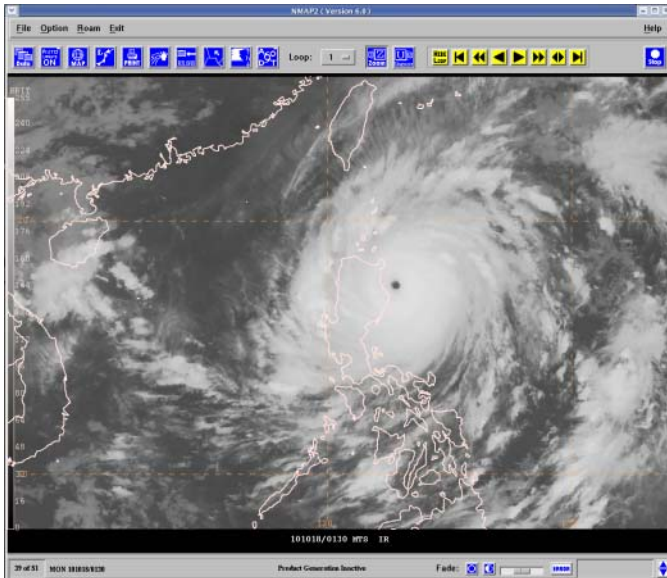


A screenshot of a forecast advisory report, showing a dense block of text with various data points and headings.

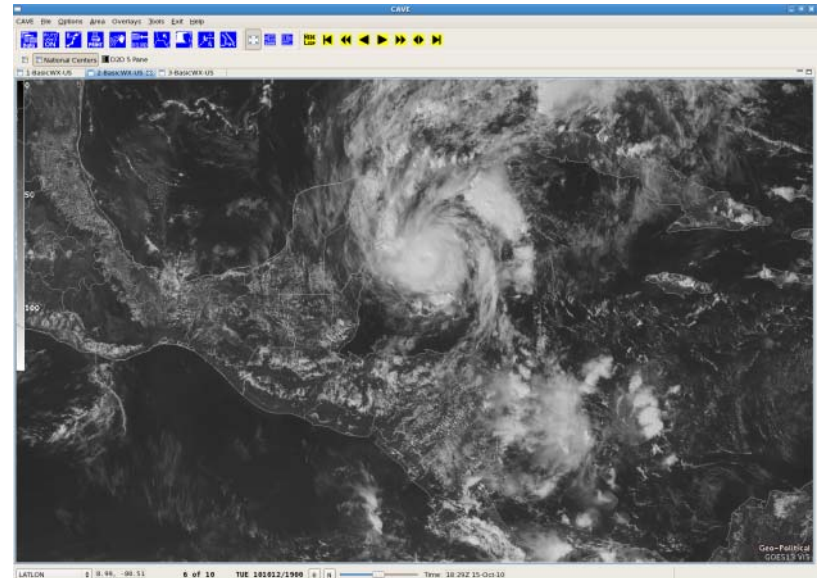




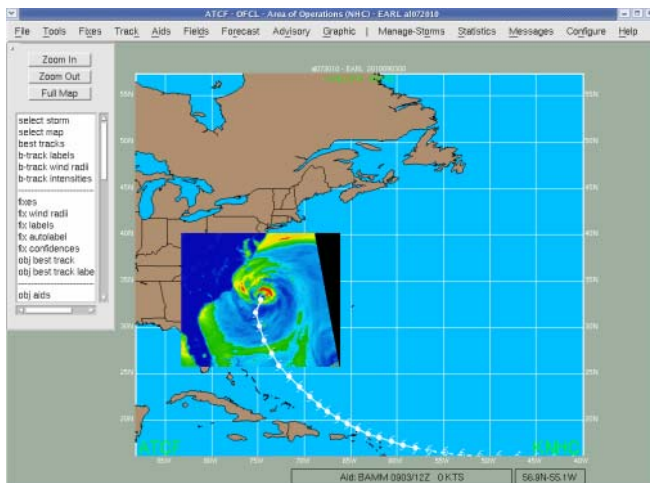
NHC's Forecast Display Systems



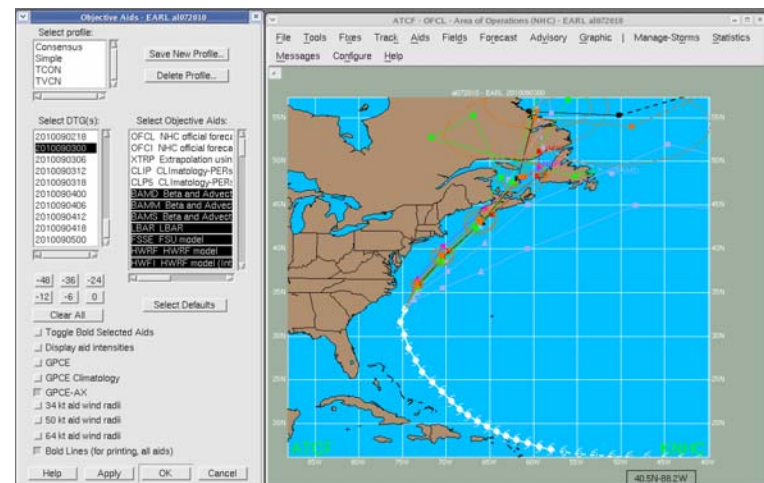
NAWIPS Display (current system)



**AWIPS-2/NAWIPS-2 Display
(future system – SOA framework)**

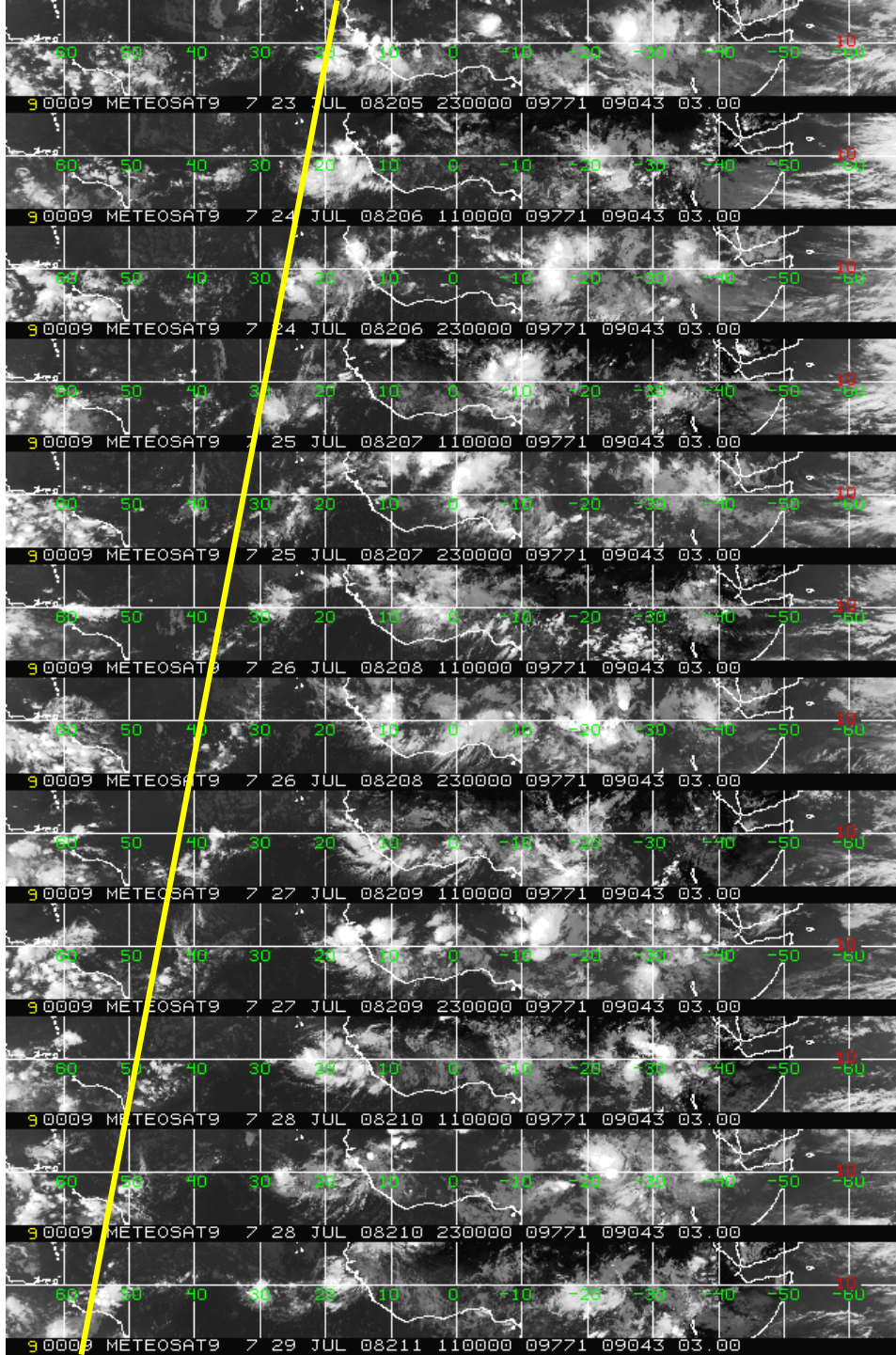


ATCF Display (satellite overlays)



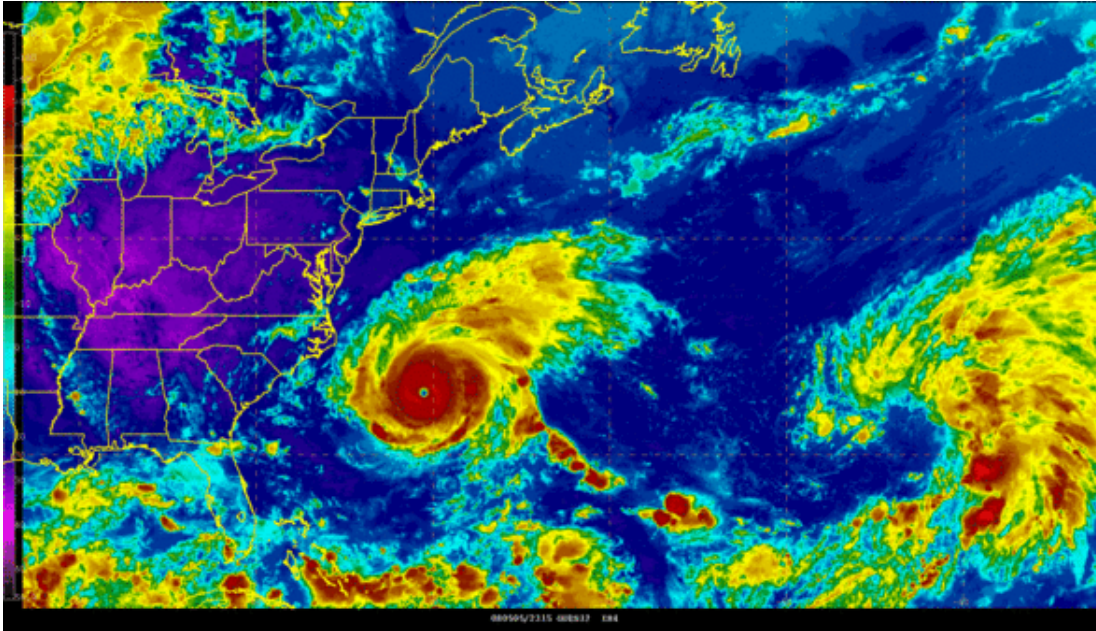
ATCF Display (models)

A Hovmöller chart shows the footprint of a weather system moving from west Africa to the Eastern Caribbean



The initial tropical wave passed west Africa around 0000 UTC Jul 24, 2008

Special Purpose Satellite Imagery



Hurricane Zoe (2008) used to test continuity of operations and response for Federal Agencies during a simulated major emergency event – Hurricane Ivan (2004) re-navigated imagery.

- Emergency management response training (Federal, State and/or Local)
- Outreach and preparedness activities
- Media (documentaries or science related segments)
- Situational awareness (mostly for communities rarely impacted by tropical cyclones).



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Future Direction

- Expect McIDAS to perform NHC's operational satellite background processing for AWIPS-2.
- Continue to leverage McIDAS for specialized projects – emergency management exercises, case studies, outreach efforts, etc.

“McIDAS will continue to play a crucial role in NHC's operational framework.”



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Questions or Comments?

Thank You