



7th NOAA TBPG Workshop

College Park, MD

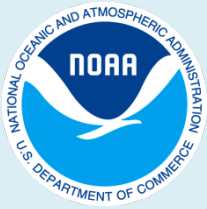
April 5-6, 2016

Roundup Presentation

Joint Hurricane Testbed

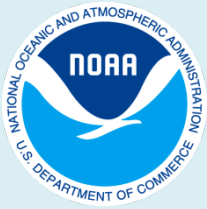
Shirley Murillo – OAR/AOML

The JHT is funded by the US Weather Research Program in NOAA/OAR's Office of Weather and Air Quality



Outline

- Mission
- FY15 Testing Highlights
- FY15 transition stats & performance metrics
- Tests Planned for FY16
- Best Practices/Lessons Learned for successful testing



Joint Hurricane Testbed (JHT)

- Bridge hurricane research & operations
- Began in 2001 under the USWRP
- **Our Mission:** successfully transfer new technology, research results & observational advances from research groups to operational centers
- Testing is done at the National Hurricane Center or Environmental Modeling Center



FY15 Highlights

Joint Hurricane Testbed

- **7th Round Projects (FY13-15)**
 - 7 projects begun September 2013
 - Testing during 2014/2015 hurricane seasons
 - Projects completed December 2015, final reports received
 - Implementation decisions to be made in spring/summer 2016
- **8th Round Projects (FY15-17)**
 - 8 new projects began September 2015
 - Presented project's progress at TC research & operations forum
 - Preparing for testing during the 2016 hurricane season



FY15 Highlights (continued)

Joint Hurricane Testbed

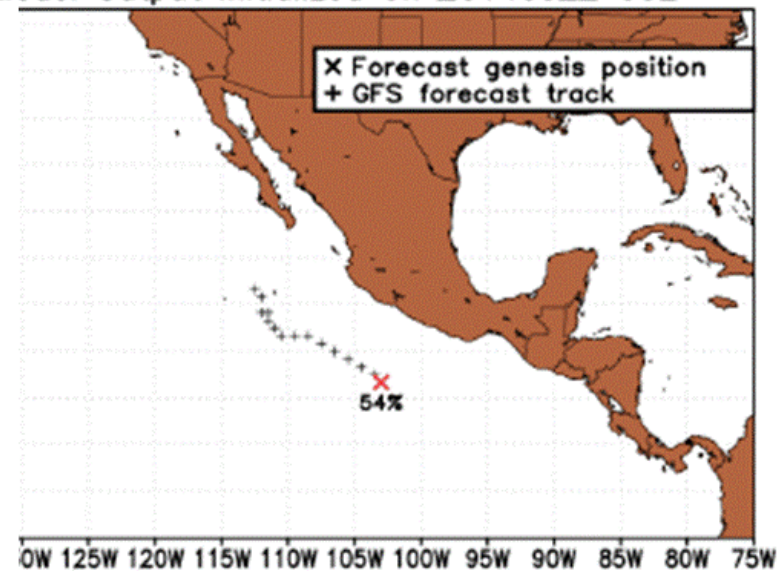
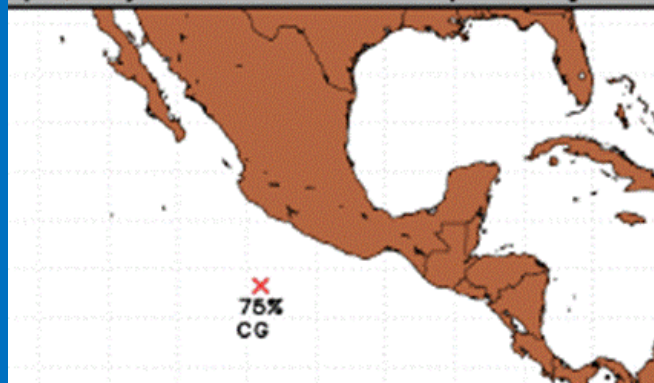
A Probabilistic TC Genesis Forecast Tool
Utilizing an Ensemble of Global Models –
PIs Bob Hart, Henry Fuelberg – POCs
Richard, Craig, Todd, Eric B, Chris L

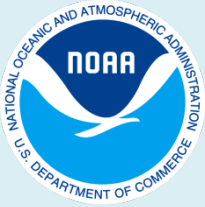
<http://moe.met.fsu.edu/modelgen/>

Experimental Probability of TC Genesis
at Anytime Within 120 Hours
GFS Model Output Initialized on 20140922 00Z

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Models in current run cycle:
C (C) GFS (G) UKMET (U)
Probability indicate the models that predicted genesis





Transition Metrics

Joint Hurricane Testbed

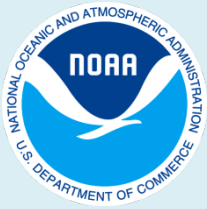
- **Forecast or Analysis Benefit:** expected improvement in operational forecast and/or analysis accuracy
- **Efficiency:** adherence to forecaster time constraints and ease of use needs
- **Compatibility:** IT compatibility with operational hardware, software, data, communications, etc.
- **Sustainability:** availability of resources to operate, upgrade, and/or provide support



FY16 Activities

Joint Hurricane Testbed

- **7th Round Projects (FY13-15)**
 - Projects completed December 2015, final reports received
 - Implementation decisions to be made in spring/summer 2016
- **8th Round Projects (FY15-17)**
 - PIs presented project's progress at TC Research & Operations Forum/IHC
 - Prepare for testing during the 2016 hurricane season
- **9th Round Projects (FY17-19)**
 - Draft up new Announcement of Opportunity



Best Practices/Lessons Learned

Joint Hurricane Testbed

- Process is proposal driven
 - Includes NHC/CPHC/JTWC and EMC's areas of priority
 - Provide info on operational center's IT environment
- Seven member Steering Committee
 - Representatives from the Tropical Cyclone community
 - Review and rank proposals
- When projects begin, PIs are partnered with forecasters
 - Continuous interaction throughout transition process
 - PI provide semi-annual progress reports
- Dedicated IT computer programmer for JHT projects



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