The Joint Hurricane Testbed (JHT):

Transitioning research into operations

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Joint Hurricane Testbed (JHT) since 2001

- Testbed: Means for testing something in development
- Bridge hurricane research and operations
- Began in 2001 under the USWRP
- *Mission*: successfully transfer new technology, research results and observational advances from research groups to operational centers
- Testing is done at NHC or EMC
JHT: The Process

- Call for Proposals – drafted and disseminated (bi-annually)
- Principal Investigators apply for funding through NOAA
- 7 member Steering Committee rates all proposals
- Funded projects are tested during 1 or 2 hurricane seasons in conjunction with NHC/EMC points of contact
- At the project’s end, each are evaluated by NHC/EMC staff
- Implementation of successful projects are then carried out by NHC/EMC staff/PIs
JHT: The statistics

Number of projects supported: 74

- 60 completed
  - 39.5 accepted for operational implementation
  - 6 projects completed but rejected
  - 9.5 projects completed but pending further investigation (decisions deferred)
  - 14 projects are underway
JHT: Project Highlight

- **Improvements in Deterministic & Probabilistic TC Surface Wind Predictions** by Mark DeMaria and John Knaff (CIRA)
  - **Project Goals:** Provide surface wind probabilities product to NHC hurricane forecasters
    - Provide scheme for wind probabilities in real-time
    - Incorporate storm-specific measures of track uncertainty
    - Develop training material and NWS product
  - Worked with NHC points of contacts during testing phase
  - Deployed product and is now part of the NHC operational suite of products
NHC Wind Speed Probability product

Tropical Storm Force Wind Speed Probabilities
For the 120 hours (5 days) from 2 AM EDT Sat Aug 27 to 2 AM EDT Thu Sep 1

Graphical product

Text product

Hurricane IRENE

Probability of tropical storm force surface winds (1-minute average >= 39 mph) from all tropical

Graphical product
• JHT serves as a model for other testbeds
  – Long history of success
• Highly competitive forum for researchers
  – transition their latest advancements into operations
• JHT Web site for additional info (www.nhc.noaa.gov/jht)
Thank You

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