



Joint Hurricane Testbed (JHT) 2011 Update

Transition from Research to Operations

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Outline

- JHT process
- Summary of JHT projects 2001-2011
- Major 2010-2011 activities at JHT & NHC
- Challenges ahead

JHT Process

- Principal Investigators apply for funding through NOAA
- 7 member Steering Committee rates all proposals
- Funded projects are tested during one or two 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

Summary of JHT projects (2001-2010)

- **1) 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 in process
- **2) Implementation**
 - 35.5 projects implemented
 - 25.5 projects implemented by NHC
 - 10 numerical modeling projects implemented by EMC/NCO
 - 4 projects accepted but not fully implemented by NHC

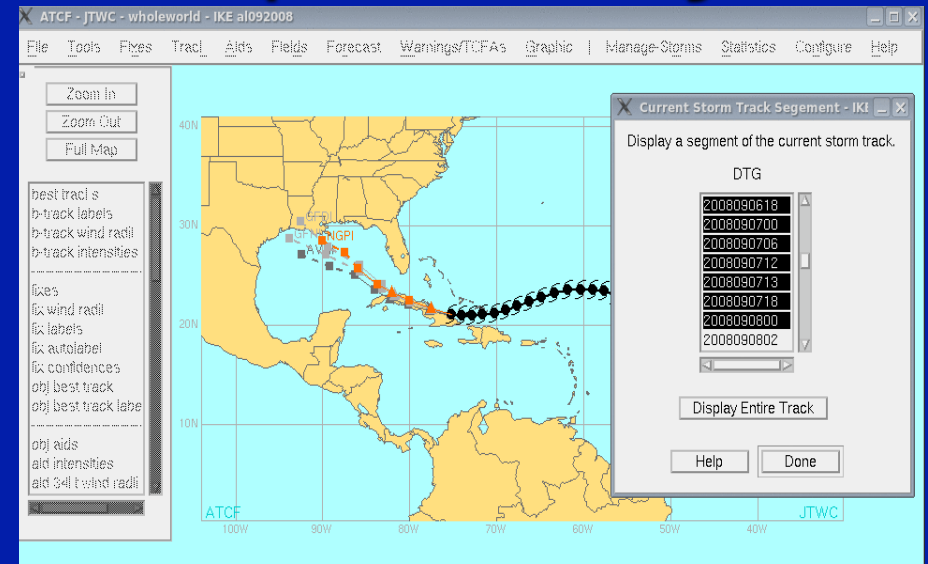
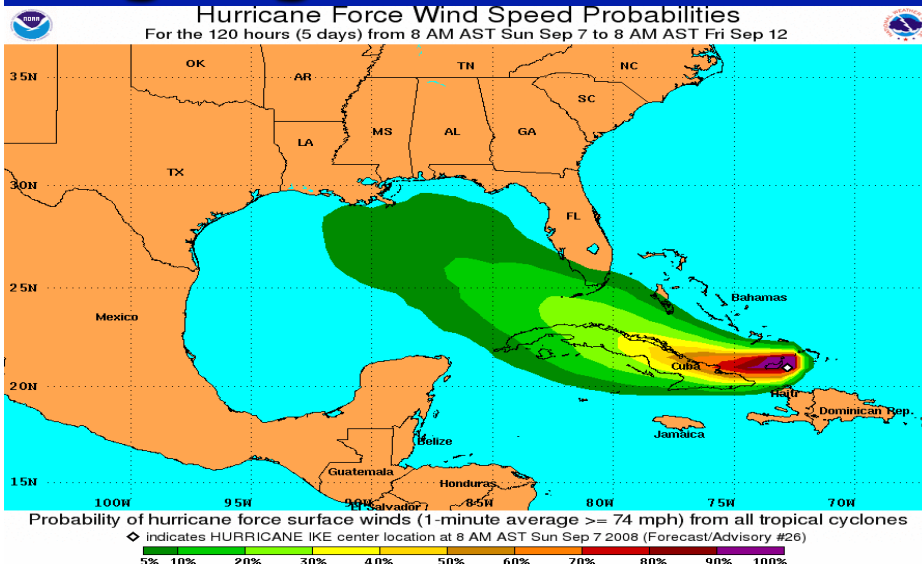
Note:

- 1) Implementation is defined when a project is completed, accepted, and the technique installed on NCEP/NCO or NHC operational systems and runs on operational time frame.
- Some techniques were “implemented” on JHT platform for testing.

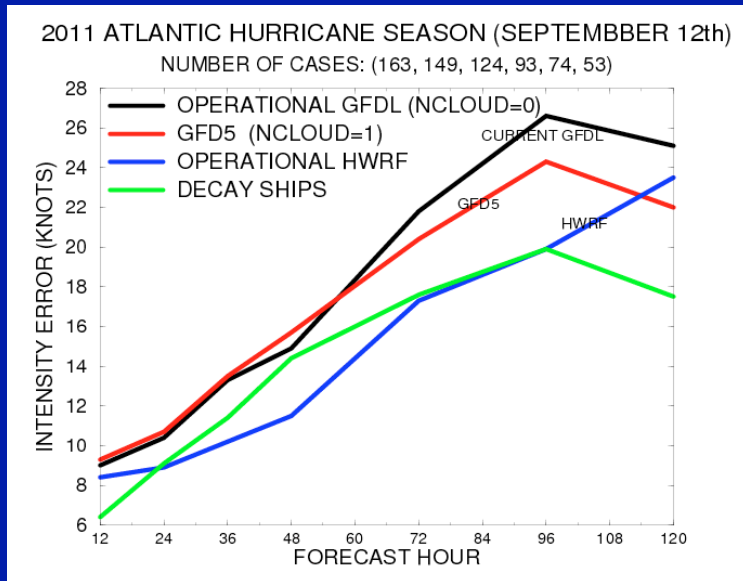
5th Round Project Focus Areas

Primary Area of Focus	# of Projects
Improvements to dynamical models (for track, intensity, and precipitation forecasts)	5
Statistical intensity forecast guidance	3
Enhancements to observed data, assimilation	1
Tropical cyclone structure/wind/wave distribution	1
Enhancements to operational environment	1
Total	11

Highlights of 5th Round Completed Projects

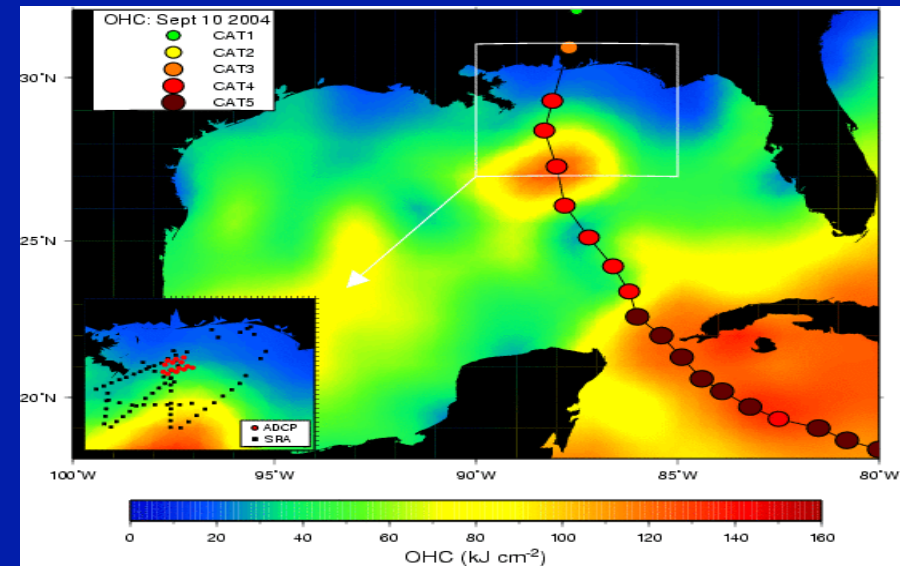


Improved Wind Probabilities – DeMaria/Knauff



HWRF-GFDN coupled model- Ginis

Enhanced ATCF - Sampson



Ocean Model Parameterizations - Shay

2011 Major JHT Activities - 5th round

- **Spring (Feb-March) Summer (July-Aug)**
 - Testing of 5th round (2009-2011) projects
- **August**
 - 9 Projects Completed
 - JHT final evaluation/report on 5th round projects
 - Decision on acceptance for implementation (NHC and EMC Directors)
 - 4 criteria for acceptance
 - *Forecast or Analysis Benefit*
 - *Efficiency*
 - *Compatibility*
 - *Sustainability*
- **December**
 - Final decision made

2011 Major JHT Activities - 6th round

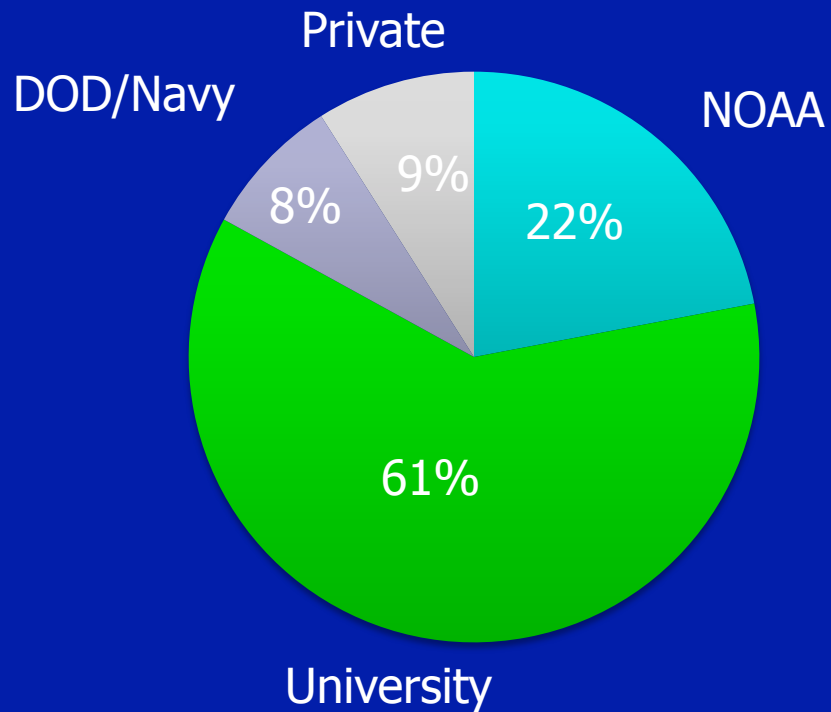
- **6th round funding recommendation**
 - Steering committee review proposals – Complete Feb 2011
 - Rank and select proposals for funding
 - Work with Grants Office to fund selected projects
 - Find Point of contacts among NHC forecasters and support staff
 - Work with PIs to setup timelines for their projects
- **6th round Projects (12) began Aug-Sept**

6th Round Project Focus Areas

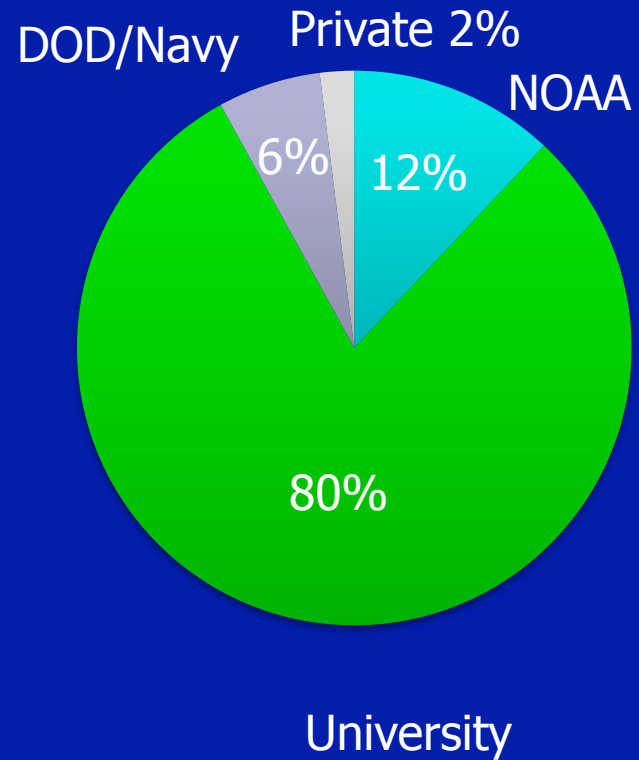
Primary Area of Focus	# of Projects
Improvements to dynamical models (for track, intensity, and precipitation forecasts)	3
Statistical intensity forecast guidance	4
Enhancements to observed data, assimilation	4
Tropical cyclone structure/wind/wave distribution	1
Total	12

Funding Distribution

5th Round (2009-2011)
\$1.15M



6th Round (2011-2013)
\$1.35M



Challenges for FY12

- **Test and evaluation**
 - Prepare real-time testing & evaluation for 6th round projects
 - Set up necessary software code and data flow.
- **Completion of 5th round projects**
 - Final reports for 5th round projects
 - POC feedback
 - JHT final review/reports to NHC Director for acceptance
- **Implement newly accepted projects (NHC)**

JHT Website

Go to www.nhc.noaa.gov/jht



The screenshot shows a web browser window with the URL www.nhc.noaa.gov/jht/. The page features a header with the USWRP logo and the text "Joint Hurricane Testbed". Below the header is a navigation menu on the left and a main content area on the right. The main content area includes a "Mission Statement" section and a "News" section with two updates. At the bottom right, there is a link to "Return to NHC Home - Contact NHC".

USWRP
Joint Hurricane Testbed

- [JHT Home](#)
- [Terms of Reference \(PDF\)](#)
- [Staff](#)
- [Steering Committee](#)
- [Main Activities](#)
- [Highlights](#)
- [Current Projects](#)
- [Past Projects](#)
- [Administrative Presentations and Information](#)

Mission Statement

The mission of the Joint Hurricane Testbed is to transfer more rapidly and smoothly new technology, research results, and observational advances of the United States Weather Research Program (USWRP), its sponsoring agencies, the academic community and other groups into improved tropical cyclone analysis and prediction at operational centers.

News

Updated 1 November 2011:
[Press Release on new 2011 funded JHT projects](#)

Updated 30 September 2011:
[New JHT projects \(Round 6, FY11-13\) announced](#)

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Thank you