Testbed Roundup:

Joint Hurricane Testbed

Shirley Murillo - NOAA/AOML
Chris Landsea - NOAA/NHC
Jiann-Gwo Jiing - NOAA/NHC

Joint Hurricane Testbed is funded by the US Weather Research Program in NOAA/OAR's Office of Weather and Air Quality.

4th NOAA Testbed and Proving Ground Workshop
Joint Hurricane Testbed (JHT) since 2001

- Bridge hurricane research and 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 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
  • 62 completed
    • 39.5 accepted for operational implementation
    • 6 projects completed but rejected
    • 9.5 projects completed but pending further investigation (decisions deferred)
• 12 projects started in fall 2011

• Implementation
  • 35.5 projects implemented: (including 4 5th round projects)
    • 10 numerical modeling related projects implemented by EMC/NCO:
    • 24.5 projects implemented by NHC:
    • 4 projects accepted but not yet fully implemented by NHC:
<table>
<thead>
<tr>
<th>Primary Area of Focus</th>
<th># of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements to dynamical models (for track, intensity, and precipitation forecasts)</td>
<td>3</td>
</tr>
<tr>
<td>Statistical intensity forecast guidance</td>
<td>4</td>
</tr>
<tr>
<td>Enhancements to observed data, assimilation</td>
<td>4</td>
</tr>
<tr>
<td>Tropical cyclone structure/wind/wave distribution</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Project Highlights - 6th round

Autosfc wind: Knaff

SHIPS
Kirk: TMI 08/30 00:41 UTC (35h before RI ends)

37GHz Micro Ring Pattern: Jiang

GFDL/GFDN improvements: Bender

VORTRAC WSR88-D: Lee
2012-2013 Major JHT Activities - 6th round

• **March – August 2012**
  – Testing of 6th round (2011-2013) projects during the season
  – One project completed (1 yr project)
  – Year 1/Renewal Proposals submitted and reviewed
  – Eleven projects funded for 2nd year

• **March 2013**
  – PIs present year 2 progress at IHC
  – Submit mid-yr progress reports

• **June - August 2013**
  – Final season to test of projects
2012-2013 Major JHT Activities - 7th round

- August 2012
  - Announcement of Opportunity released ($1M)
    - Included an updated list of operational priorities
- October 2012
  - 36 Letters of Intent reviewed
- December 2012 - January 2013
  - 22 Full proposals are being reviewed
- February - April 2013
  - Rank and select proposals for funding
  - Work with OWAQ to fund selected projects
  - Find Point of contacts among NHC forecasters and support staff
  - Work with PIs to setup timelines for their projects
- June – November 2013
  - Begin real-time testing during hurricane season
JHT Web site: for additional info

www.nhc.noaa.gov/jht

Thank you
An Update of the Joint Hurricane Testbed

Jiann-Gwo Jiing - NOAA/NHC
Chris Landsea - NOAA/NHC
Shirley Murillo - NOAA/AOML

Joint Hurricane Testbed is funded by the US Weather Research Program in NOAA/OAR's Office of Weather and Air Quality.