Status of NWS Tropical Program

Jessica Schauer NWS Tropical Services Program Leader

Tropical Program/Project Milestones

Building a Weather-Ready Nation and Evolving the NWS

FY20 Includes:

- Requirements for moving the storm surge watch/warning from the TCV to the CFW to allow for their use during non-tropical surge events
- Requirements for a Tropical Testbed to evaluate new/updated data sources, guidance, products, and procedures

FY19 Includes:

Expand storm surge watch/warning

products and services to WFOs SJU

IDSS Coordination Program for

effective and consistent tropical

event IDSS in FY19 (including the

planning for integration into the

Requirements for Tropical Cyclone

FY19

multi-hazard IDSS Coordinator

Continuity of Operations Plan

Program for FY20+

provision of EHM as a prerequisite

for potential IDSS Coordinators) and

and HFO

Updates

- Requirements for Transitioning the Tropical Testing and Training Exercise to the Weather Event Simulator (WES)
- Tropical Cyclone Watch/Warning Wind Hazard Grid Guidance Test
- SPT approved process for developing a Tropical Roadmap for product and service improvements based on social science

FY21



FY20

FY21 Includes:

- Tropical Roadmap for product and service improvements
- Requirements for Improvements to the TC "Cone" Graphic that integrates HFIP service enhancements
- Tropical service improvements in Pacific Region and Western Region phased into operations
- Requirements for a Tropical Testing and Training Exercise to the Weather Event Simulator (WES)
- Operational Digital Collaboration of Tropical Cyclone Wind Watches and Warnings



FY22 and Beyond Includes:

- Implementation of the Tropical Roadmap for product and service improvements
- Operational, DIS supported HTI-Web Interface
- Requirements for the conveyance of tropical cyclone forecasts on Days 6 & 7
- Tropical cyclone forecast/advisory (TCM) format improvements



Pre-Decisional

Updated 11/4//18

Tropical Program/Project Milestones

Building a Weather-Ready Nation and Evolving the NWS

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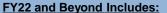
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Requirements for a Tropical Testbed to evaluate new/updated data sources, guidance, products, and procedures







- Description: Identify a systematic way to test out new capabilities (i.e., the Gridded TCM, inland wind reduction in the TC Wind Speed Probabilities, collaboration software, etc.) prior to use in operations
- Cross-Cut Office Dependency: OAR
- Wx Act Connection: Yes
 - Title 1, Section 104 Improve hurricane forecasting
 - Title IV, Section 403 The OAR and the NWS may establish a program to detail their personnel to each other
 - Title IV, Section 411 The NWS must review existing research, products, and services that meet the specific needs of the urban environment

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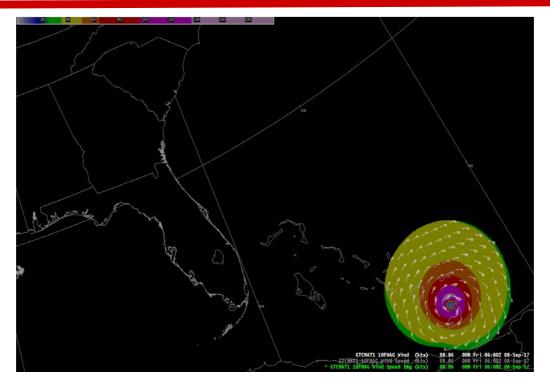






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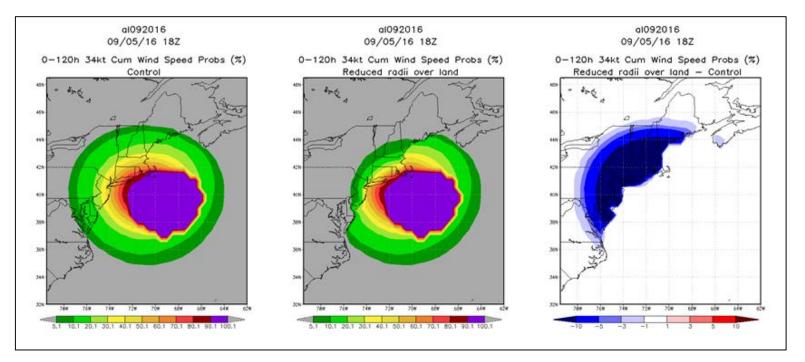
Opportunities for Collaboration



Gridded TCM (TC Forecast) with Inland Wind Reduction

- Validation process leading to improvements in the gridded wind depiction
 - Ensure consistency with the NHC, CPHC, or JTWC forecast

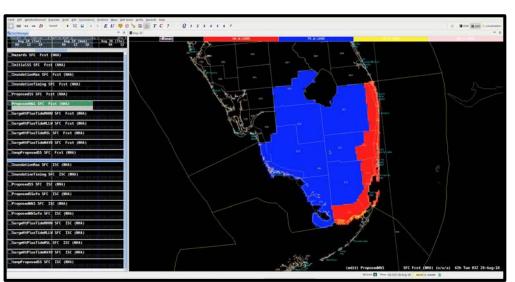
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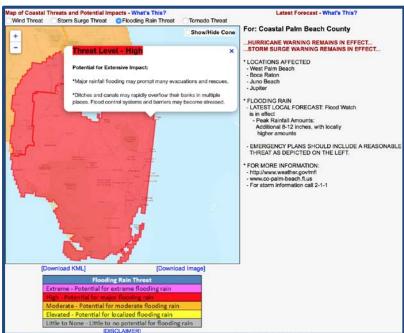


TC Wind Speed Probabilities Improvements and Operational Integration

- Evaluation and development of inland wind reduction techniques
- Wind Radii Bias Correction Over Land Applies a 20% wind reduction factor to the cyclone's maximum winds before wind radii calculation for land points if the TC center is over water

Opportunities for Collaboration





Converting Forecasts to Actionable Information

- Developing, testing, and improving "recommenders" for placement of W/Ws
- Developing, testing, and improving algorithms that depict the threat a hazard could pose

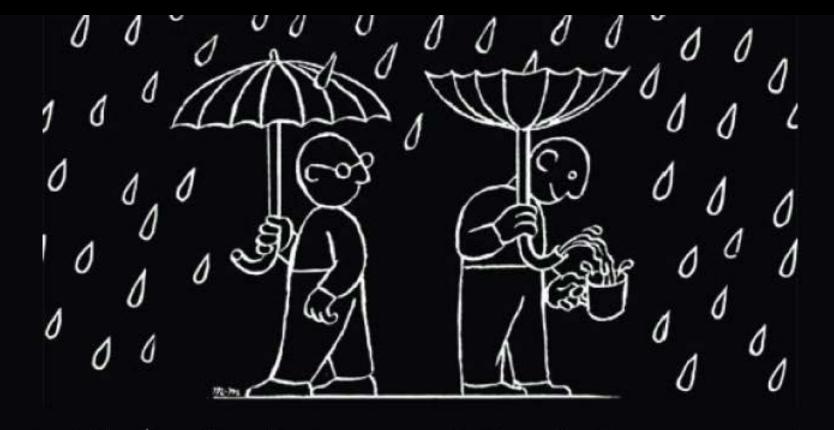
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+
Scientifically validated techniques
+
Social science

Easily understood NWS tropical products and services that meet the needs of our users

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What does the
process look like to
get from research to
operations?

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INNOVATION IS A STATE OF MIND

What Do We Need To Do In the Short-Term?

Agree on the steps needed to get to an improved user experience during a tropical event.

Steps in the proposed process:

- 1. Analyze Existing Product/Service Evaluations
- 2. Determine the Impacts of Science and Technology Advancements and Policy Changes on NWS Products and Services
- 1. Social Science to Identify Gaps and Potential Service Improvements
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Step 2: Determine the Impacts of Internal Advancements and Policy

- Identify what can be improved because of upcoming scientific improvements (i.e., improved forecasts, etc.)
- Identify what can be improved because of upcoming technology innovations
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Step 3: Social Science to Identify Gaps and Potential Service Improvements

Evaluate the user experience during a tropical event

- Can people find what they're looking for?
- Is the information provided encouraging people to make good decisions for their safety?
- Is there a need to improve the web user experience? The social media user experience? The mobile user experience?



Thank You

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