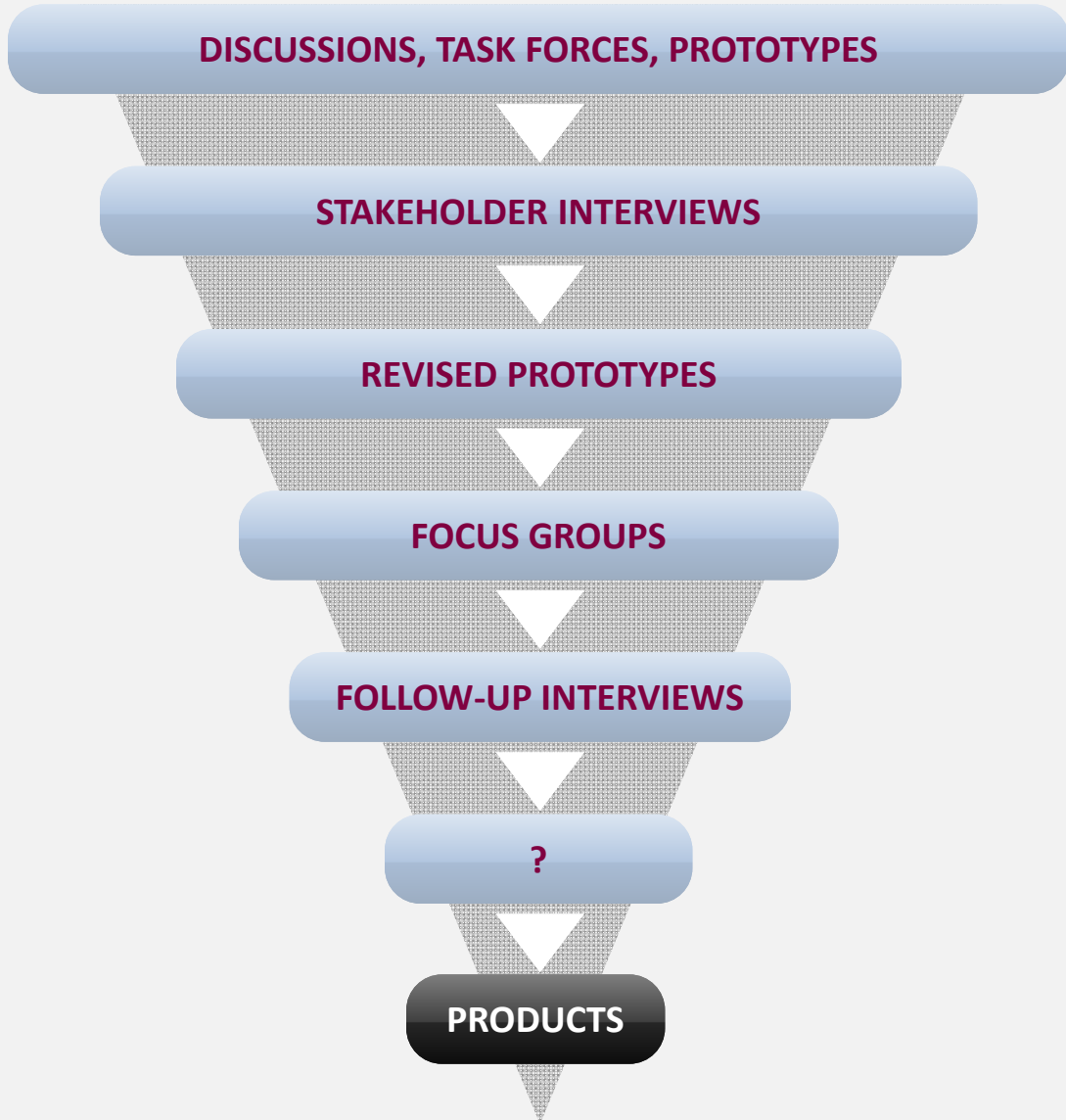


Improving Local Hurricane Forecast Communication

Dr. Betty Morrow
Interdepartmental Hurricane
Conference
March 6, 2014



LOCAL TC PRODUCTS

TCV

Hurricane
Local
Statement

Impact Graphics

Potential Impacts
Maps

Combined Hazards
Graph

THE RESEARCH TEAM

- Project Manager at CSC:
 - Stephanie Fauver
- Project Manager at ERG:
 - Linda Girardi
- Prototype Developers:
 - Shannon White, Pablo Santos, David Sharp
- NOAA Interviewers:
 - Vankita Brown, Chris Ellis, Stephanie Fauver, Marian Hanisko, Adrienne Harrison, Betsy Nicholson, Heidi Stiller, Ann Weaver
- Focus Group Facilitators:
 - Betty Morrow, Gina Eosco, Linda Girardi
- Follow-Up Interviews:
 - Betty Morrow

TCV

WTUS82 KLIX DDHHMM
TCVLIX

URGENT - IMMEDIATE BROADCAST REQUESTED
HURRICANE OMEGA LOCAL WATCH/WARNING VTEC STATEMENT AL012009
NATIONAL WEATHER SERVICE NEW ORLEANS LA
1130 AM CDT FRI AUG 15 2014

LAZ062-152315-
/O.CON.KMFL.HU.W.1001.000000T0000Z-000000T0000Z/
/O.CON.KMFL.SS.A.1001.000000T0000Z-000000T0000Z/
ORLEANS-



INCLUDING THE CITIES OF...NEW ORLEANS
~~1130 AM CDT FRI AUG 15 2014~~

...HURRICANE WARNING IN EFFECT...
...STORM SURGE WATCH IN EFFECT...
...FLOOD AND/OR TORNADO WATCH HEADLINES WILL BE HERE TOO...

- Include Advisory #
- Find way to highlight segment name, such as:
 - Hide or right-justify code
 - Change font
- Add page numbers
- Change name of product? (Avoid TC)
- Cross reference that HLS is pending

TCV Hazards Statements

* WIND:

- MAX SUSTAINED WIND: 95-115 MPH WITH GUSTS TO 140 MPH
- ONSET HURRICANE: SATURDAY NIGHT
- DURATION: 6-12 HOURS
- ONSET TROPICAL STORM: SATURDAY AFTERNOON THRU EVENING
- DURATION: 24-30 HOURS

- POTENTIAL IMPACTS:

- + EXTREME – DEVASTATING WIND DAMAGE
- + STRUCTURAL DAMAGE TO COMMERCIAL AND RESIDENTIAL BUILDINGS WITH SOME HAVING COMPLETE WALL AND ROOF FAILURES
- + COMPLETE DESTRUCTION OF MOBILE HOMES
- + NUMEROUS ROADS IMPASSABLE DUE TO LARGE DEBRIS
- + WIDESPREAD TO COMPLETE POWER OUTAGES FOR AT LEAST MONTHS IN THE HARDEST HIT AREAS

- Be consistent with hazard names such as: Wind, Surge, Rain or Rainfall and Tornadoes across all products
- Give forecast (threat) first, followed by potential impacts
- Use regional thresholds to determine Extreme, High, etc. for impacts
- Use regional impact statements
- Order of hazards? (Prioritized or standard)

Hurricane Local Statement

THIS PRODUCT COVERS SOUTHEAST LOUISIANA AND SOUTHERN MISSISSIPPI

****DEVASTATING DAMAGE AND LIFE THREATENING CONDITIONS EXPECTED THIS WEEKEND AS HURRICANE OMEGA MOVES TOWARD SOUTHEAST LOUISIANA AND SOUTHERN MISSISSIPPI****

NEW INFORMATION

* CHANGES TO WATCHES AND WARNINGS:

- NONE

* CURRENT WATCHES AND WARNINGS:

- A HURRICANE WARNING AND STORM SURGE WARNING REMAIN IN EFFECT FOR:
ASCENSION...ASSUMPTION...JEFFERSON...LAFOURCE...LIVINGSTON...ORLEANS...
TANGIPAOA...TERREBONNE...ST. BERNARD...ST. JAMES...ST. JOHN THE BAPTIST...
ST. TAMMANY PARISHES IN SOUTHEAST LOUISIANA
- A HURRICANE WATCH AND STORM SURGE WATCH REMAIN IN EFFECT FOR:
HANCOCK...HARRISON...JACKSON COUNTIES IN SOUTHERN MISSISSIPPI

- Short synopsis at beginning
- Followed by New Information
- Storm information included? (location, intensity, movement)
- Add Advisory #
- Cross reference to TCV

Hurricane Local Statement

SITUATION OVERVIEW

EXTREMELY DANGEROUS HURRICANE OMEGA IS EXPECTED TO IMPACT SOUTHEAST LOUISIANA AND SOUTHERN MISSISSIPPI THIS WEEKEND. THE MAIN CONCERN IS FOR DEVASTATING TO LOCALLY CATASTROPHIC DAMAGE FROM WIND AND SURGE IN SOUTHEAST LOUISIANA AND SOUTHERN MISSISSIPPI SOMETIME BETWEEN SATURDAY NIGHT AND SUNDAY NIGHT.

THE POTENTIAL EXISTS FOR MODERATE TO HIGH IMPACTS ASSOCIATED WITH MAJOR INLAND FLOODING FROM HEAVY RAINS. WIDESPREAD RIVER FLOODING IS EXPECTED.

ISOLATED TORNADOES ARE POSSIBLE AS THE SYSTEM APPROACHES AND MOVES ACROSS THE AREA.

WHEN MAKING DECISIONS, DO NOT FOCUS ON THE EXACT FORECAST TRACK AND INTENSITY. IT IS TOO EARLY TO PROVIDE SPECIFIC INFORMATION.

- Overview supported
- Questions about the last statement, particularly last sentence

Hurricane Local Statement

SIGNIFICANT POTENTIAL IMPACTS

* WIND:

DEVASTATING TO CATASTROPHIC DAMAGE IS EXPECTED IN PORTIONS OF SOUTHEAST LOUISIANA INCLUDING BOTH THE SOUTH SHORE AND NORTH SHORE REGIONS. THIS MEANS THE POTENTIAL FOR:

- STRUCTURAL DAMAGE TO COMMERCIAL AND RESIDENTIAL BUILDINGS WITH SOME HAVING COMPLETE WALL AND ROOF FAILURES.
- COMPLETE DESTRUCTION OF MOBILE HOMES.
- NUMEROUS ROADS IMPASSABLE DUE TO LARGE DEBRIS.
- MANY BRIDGES AND OTHER ACCESS ROUTES IMPASSABLE.
- WIDESPREAD POWER OUTAGES FOR POSSIBLY MONTHS IN HARDEST HIT AREAS.

* SURGE:

LIFE-THREATENING STORM SURGE IS POSSIBLE ACROSS PORTIONS SOUTHEAST LOUISIANA AND THE MISSISSIPPI COAST. THIS MEANS THE POTENTIAL FOR:

- LEVEE SYSTEMS THREATENED WITH POTENTIAL FOR OVERTOPPING INCLUDING THE METRO NEW ORLEANS RISK REDUCTION SYSTEM, RESULTING IN LIFE THREATENING FLOODING.
- STRUCTURAL DAMAGE FROM SEA WATER.
- SEVERE BEACH EROSION.
- SECTIONS OF ROADWAYS WASHED OUT AND ESCAPE ROUTES SEVERELY FLOODED.
- STRUCTURAL DAMAGE TO BUILDINGS IN FLOOD PRONE AREAS.
- DAMAGE COMPOUNDED BY FLOATING DEBRIS.
- DAMAGE TO MARINAS, DOCKS, AND PIERS.

- Repeat potential impacts from TCV?
- Only give significant impacts or all 4?

Hurricane Local Statement

PRECAUTIONARY/PREPAREDNESS ACTIONS

* EVACUATIONS:

SEVERAL PARISHES AND JURISDICTIONS HAVE ISSUED EVACUATION ORDERS. GO TO XXX.ORG FOR THE LATEST EVACUATION INFORMATION.

~~FOR THOSE NOT UNDER EVACUATION ORDERS, UNDERSTAND THAT THERE ARE INHERENT RISKS TO EVACUATION (TRAFFIC ACCIDENTS, CONGESTION, AND GETTING CAUGHT ON THE ROAD DURING BAD WEATHER), SO EVACUATE ONLY IF YOU NEED TO. THAT WOULD ALSO HELP KEEP ROADWAYS OPEN FOR THOSE THAT ARE UNDER EVACUATION ORDERS.~~

* OTHER PREPAREDNESS INFORMATION:

FOR THOSE UNDER A WARNING, NOW IS THE TIME TO RUSH TO COMPLETION PREPARATIONS FOR THE PROTECTION OF LIFE AND PROPERTY.

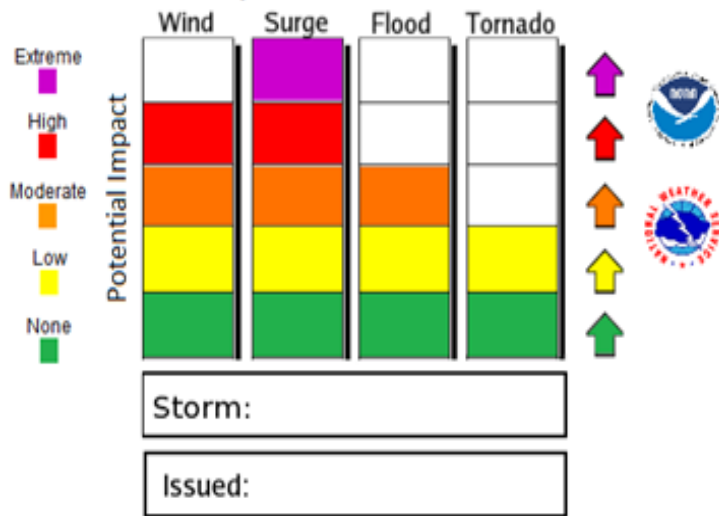
PEOPLE IN THE WARNING AREA SHOULD FINISH PREPARATIONS NOW. FOR THOSE UNDER A WATCH, REVIEW YOUR PREPAREDNESS PLANS AND BE READY TO IMPLEMENT THEM SHOULD A WARNING BE ISSUED FOR YOUR AREA.

FOR MARINE INTERESTS UNDER A WATCH OR WARNING, RETURN TO PORT OR SEEK SAFE HARBOR. DETERMINE THE BEST STRATEGY FOR SECURING YOUR CRAFT.

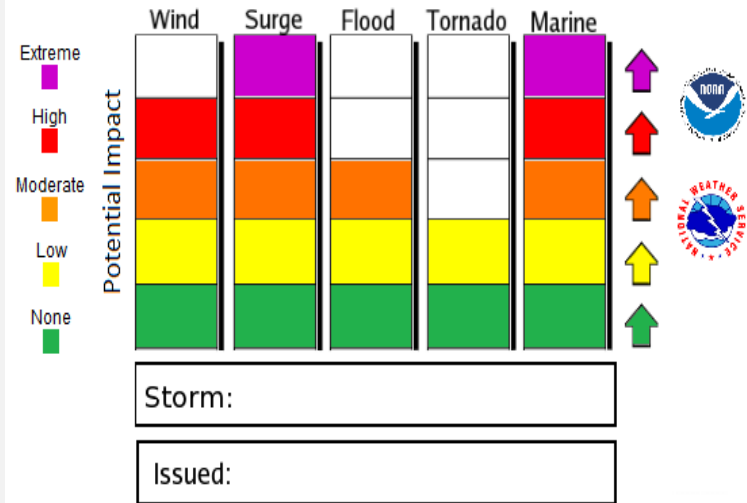
- Use links for evacuation information
- Drop message for those not under evacuation orders
- Delete word “rush” to completion preparations....

Impact Graphics

Tropical Cyclone Hazards Assessment
Specific to South Florida

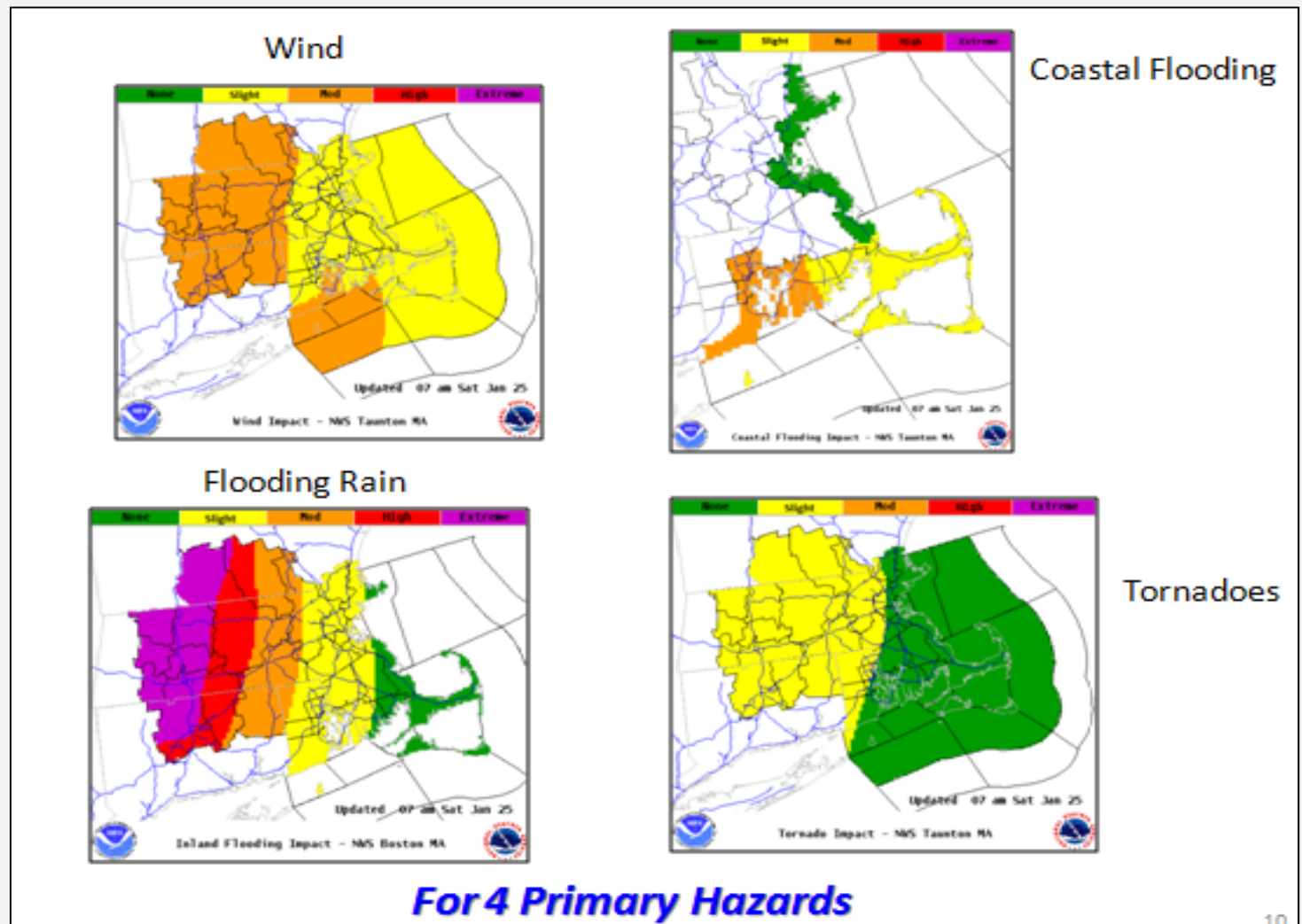


Tropical Cyclone Hazards Assessment
Specific to South Florida



- Make this a threat assessment/storm profile
- Use national thresholds
- Improve title
- Drop Marine bar
- Color blocks or solid color?
- Issue early?

Impact Maps



10

- Idea supported
- Maps need improvement – resolution, titles, legends
- No consensus on colors and impact labels/descriptors
- Relationship of Surge Impact Map to Storm Surge Potential Flooding Map?
- Liked idea of WFOs developing mosaics together

Conclusion

- TCV and HLS ready for final versions
- Combined Potential Impacts Maps Hazard Bar Graph and would benefit from further research and development

Send comments & suggestions to:

Stephanie.fauver@noaa.gov

Linda.girardi@erg.com

bettymorrow@mac.com