



# NWS Information and Decision Support During Hurricane Situations

*MEMA Hurricane Symposium*

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**NWS Boston/Norton**





# The Numbers Game

100



100 mph gusts in a “weak” hurricane





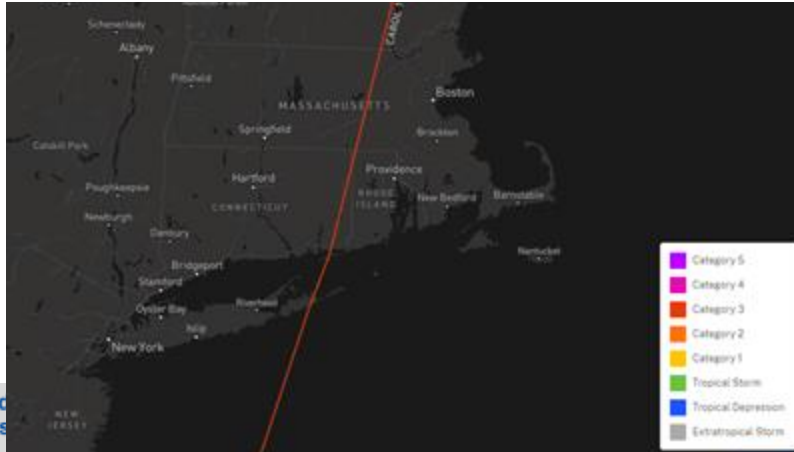
# The Numbers Game

69





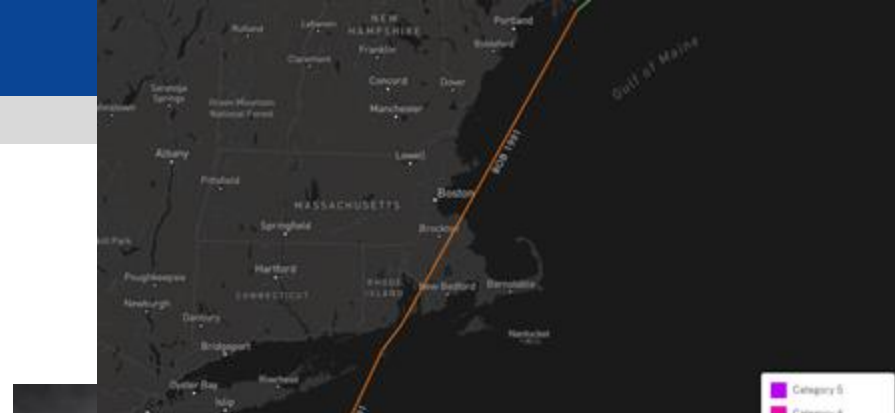
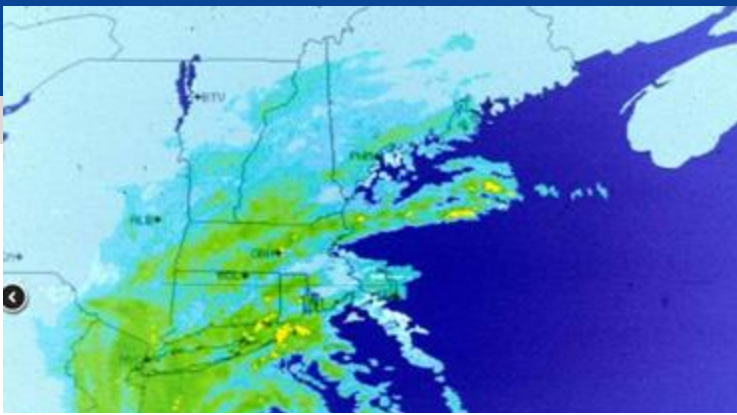
69 years since Carol (last major hurricane) hit Massachusetts





# The Numbers Game

32



# 32 years since Bob - Our last landfalling Hurricane





# The Numbers Game

1





# The MOST IMPORTANT Number

Number of landfalling hurricanes needed to make it:

1

- An unforgettable, historic year*
- A disaster*
- A career defining moment for you*





# Role the NWS has to Support You: Let's Talk Timelines

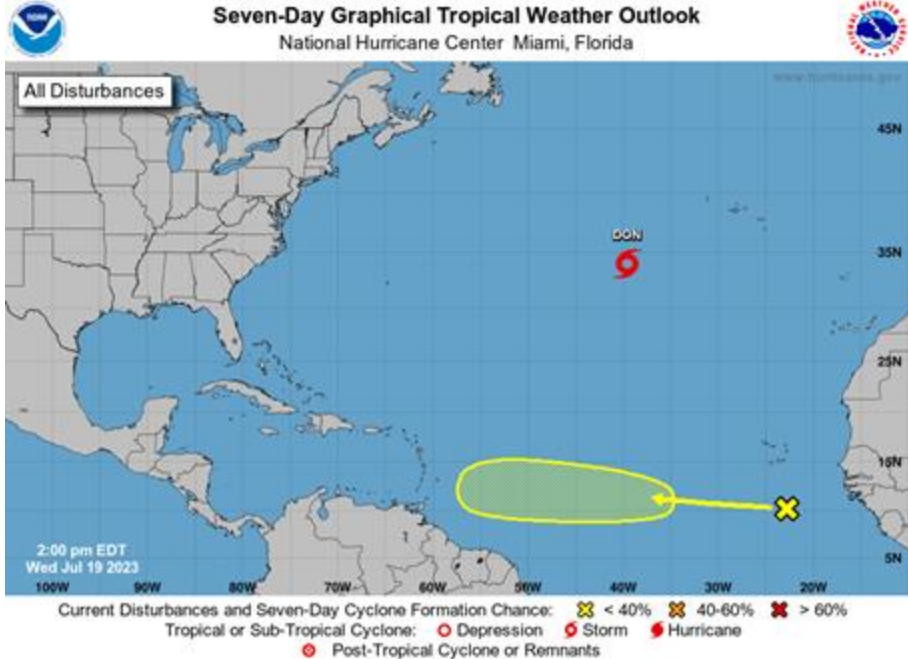




# 5 To 7 Days Prior

## National Hurricane Center

Seven-Day Graphical Tropical Weather Outlook  
National Hurricane Center Miami, Florida



## NWS Boston/Norton

- Email with a “One-Pager” briefing conveying our level of concern
- Available 24/7 to take calls/emails with all questions you may have





# 4 To 5 Days Prior

## National Hurricane Center



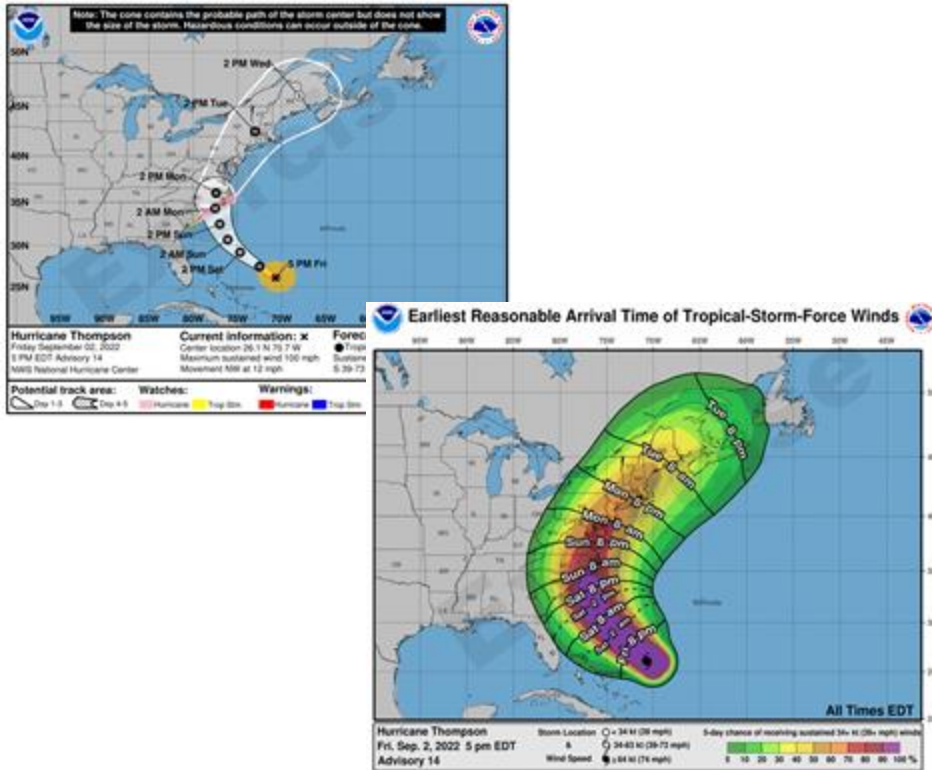
## NWS Boston/Norton

- Email Briefings, indicating confidence and where the forecast could go wrong
  - Primarily based on track, timing and intensity
- Including reminders on the important aspects of the “Forecast Cone” to keep in mind
  1. 1 out of 3 storms travel OUTSIDE the cone
  2. This does NOT give any indication of the size of the storm - impacts DO HAPPEN outside of that cone
  3. The cone only represents the average error for the center of the storm. Don't read anything more into it.



# 3 To 4 Days Prior

## National Hurricane Center



## NWS Boston/Norton

- Hurricane Watch raised
- Email Briefings: Starting to give more details on potential impacts - **focus will be “probable worst case scenarios”**
  - Still greatly dependent on the confidence of the forecast
- Participating in MEMA conference/video calls & hosting additional calls for partners
- Storm Surge/Coastal Inundation aspect: We will probably be vague
  - A few hours difference in timing compared to tide cycle – all the difference in the world
  - Also storm strength, size, forward speed and landfall point all play a huge role
  - Refer to **SLOSH output in Hurrevac**

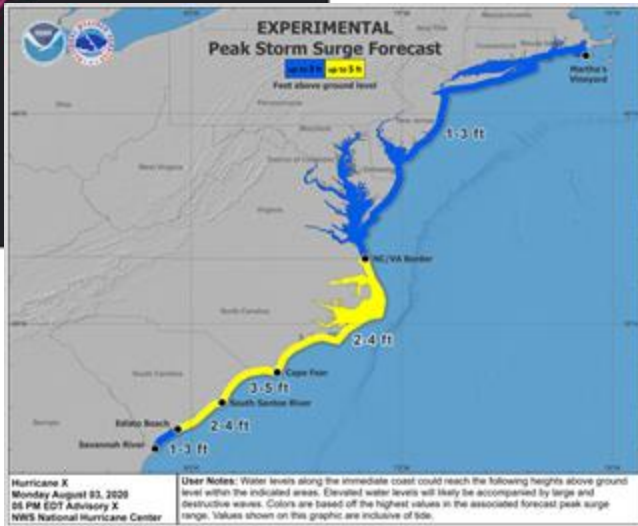
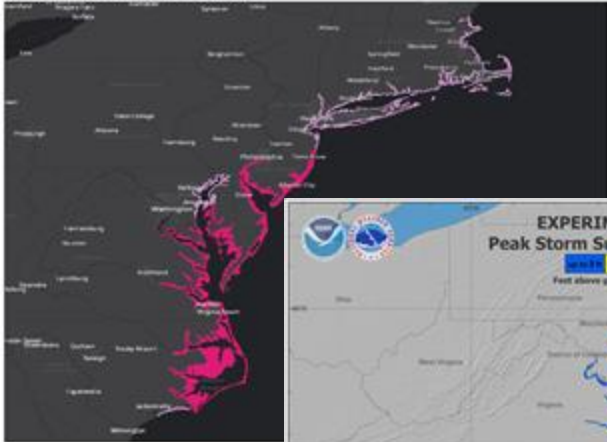




# 2 To 3 Days Prior

## National Hurricane Center

Storm Surge Watch/Warning Graphic  
Hurricane Thompson  
Advisory 18 Issued: 506 PM EDT Sat Sep 03 2022



## NWS Boston/Norton

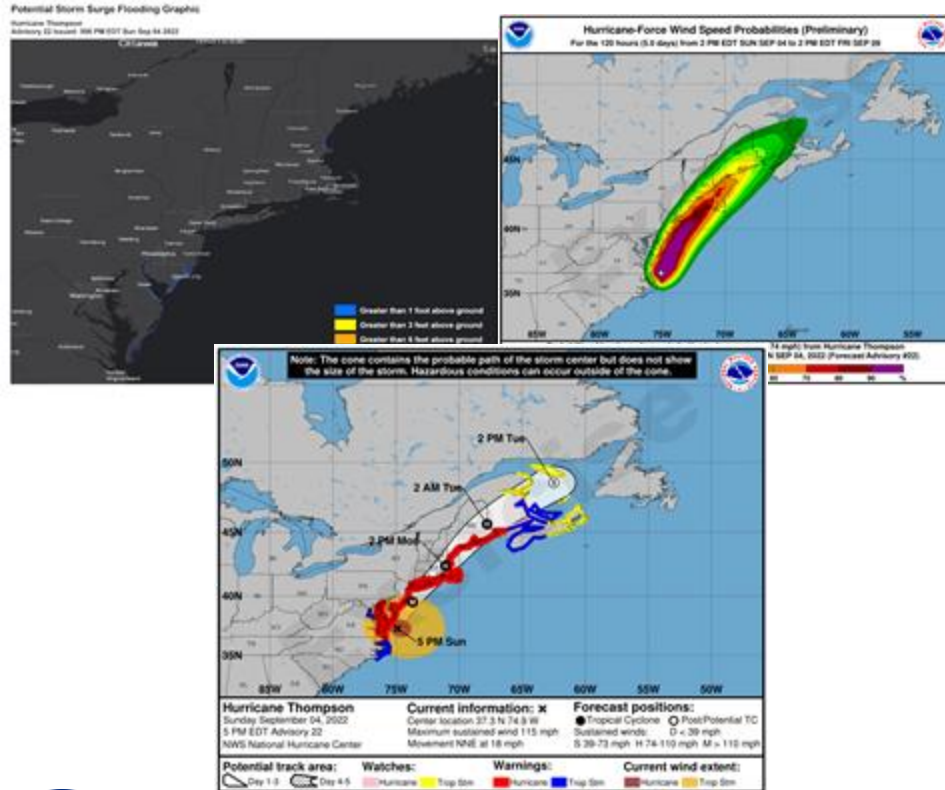
- Hurricane Warnings raised
- Storm Surge/Coastal Flooding Watch raised
- Flood Watch raised
- Email Briefings: Continuing to add details as confidence in certain aspects increase
  - Details still greatly dependent on specific track, intensity, motion of the hurricane
- Conference/Video calls multiple times a day
- Surge/Coastal Inundation forecasts available
  - Will assume timing of the storm coincides with high tide
  - Will lean toward a reasonable worst case scenario (10% chance it could be worse)
  - A few hours difference in timing compared to tide cycle – all the difference in the world
  - Storm strength, size, forward speed and landfall point all play a huge role
- Office's webpage has enhanced suite of products including maps showing impact potential for flooding, wind, tornadoes, surge





# 1 Day Prior

## National Hurricane Center



## NWS Boston/Norton

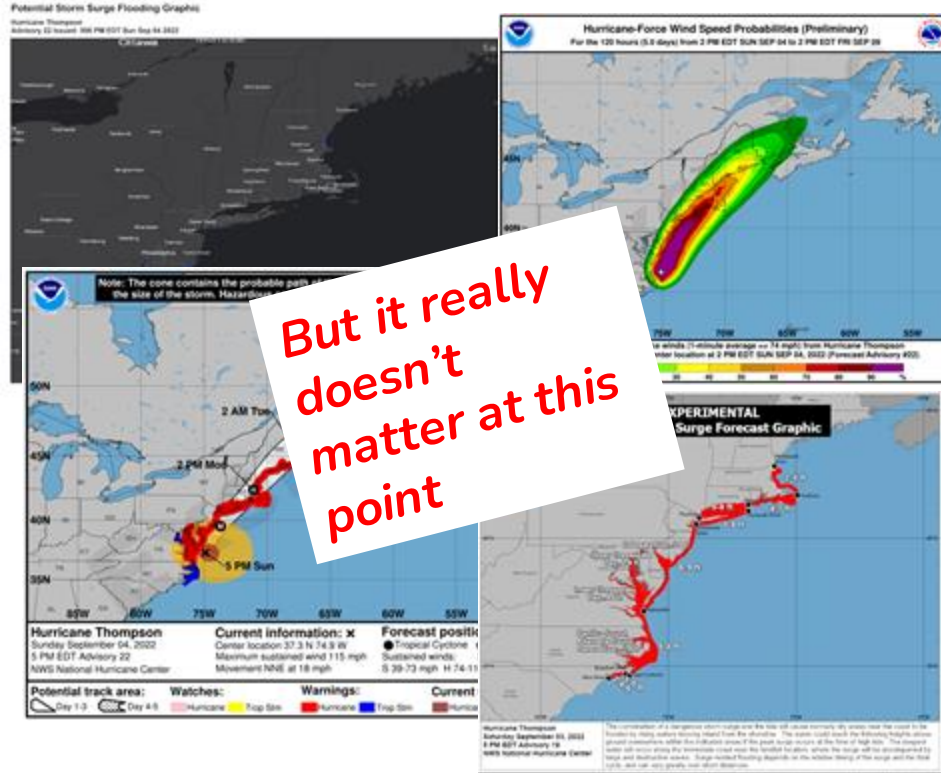
- Storm Surge/Coastal Flood Warnings raised
- Email, Conference Call and Video briefings multiple times a day
  - Will continue to convey the aspects of uncertainty that still exist (and there will be quite a few)
    - Average forecast error is 30 miles. 30 miles makes a HUGE difference
  - Try our best to answer those last minute location specific questions
- Likely have staff at MEMA EOC
- Trying to get all the information out there
  - Help to convey critical messages from the EM community to the public





# The Day Of

## National Hurricane Center



## NWS Boston/Norton

- Likely have staff at MEMA EOC
- Email, Conference Call and Video briefings
- Providing play by play and calling audibles based on what we see on radar, weather observations, tide gauges
- Relay critical messages from the EM community to the public



# Post Storm & Recovery

## *National Hurricane Center*

Left

Blank

Intentionally

## *NWS Boston/Norton*

- **We are here for you**
- Whatever support is requested to ensure safety of first responders from upcoming weather hazards during all recovery operations
- Staffing at MEMA EOC as requested
- Video/email briefings as requested
- Gathering information on damage





# Note These URLs

[www.weather.gov/media/box/sneHurricaneTabletop/NWS\\_Tropical\\_Products\\_2023.pdf](http://www.weather.gov/media/box/sneHurricaneTabletop/NWS_Tropical_Products_2023.pdf)

[weather.gov/boston](http://weather.gov/boston)

[hurricanes.gov](http://hurricanes.gov)

