

**IMPACTS FOR D7 (through next 5 days)**

**Winds – Medium**

**Storm Surge – Low**

**Rainfall/Flash Flooding – High**

**Tornadoes – Low**

**Waves - High**

# TROPICAL STORM ERNESTO BRIEFING

6:00 PM EDT

Tuesday, August 13, 2024

Prepared by:

**Amanda Reinhart**

*Tropical Analysis and Forecast Branch  
NWS National Hurricane Center*



NHC\_TAFB

[www.nhc.noaa.gov](http://www.nhc.noaa.gov)

# Changes since Last Briefing

Tropical Storm Ernesto



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- Ernesto continues to strengthen, and latest guidance shows there is some chance of Ernesto becoming a hurricane by tonight near the Virgin Islands
  - Due to this, a Hurricane Watch is in effect for the USVI, Culebra, and Vieques
- The tropical storm force wind probabilities has gone up across the USVI, Vieques, and eastern Puerto Rico – however, it has gone down for western Puerto Rico
- Rainfall forecast has slightly increased over southeast Puerto Rico – with 6 to 8 inches (local max as high as 10 inches) possible

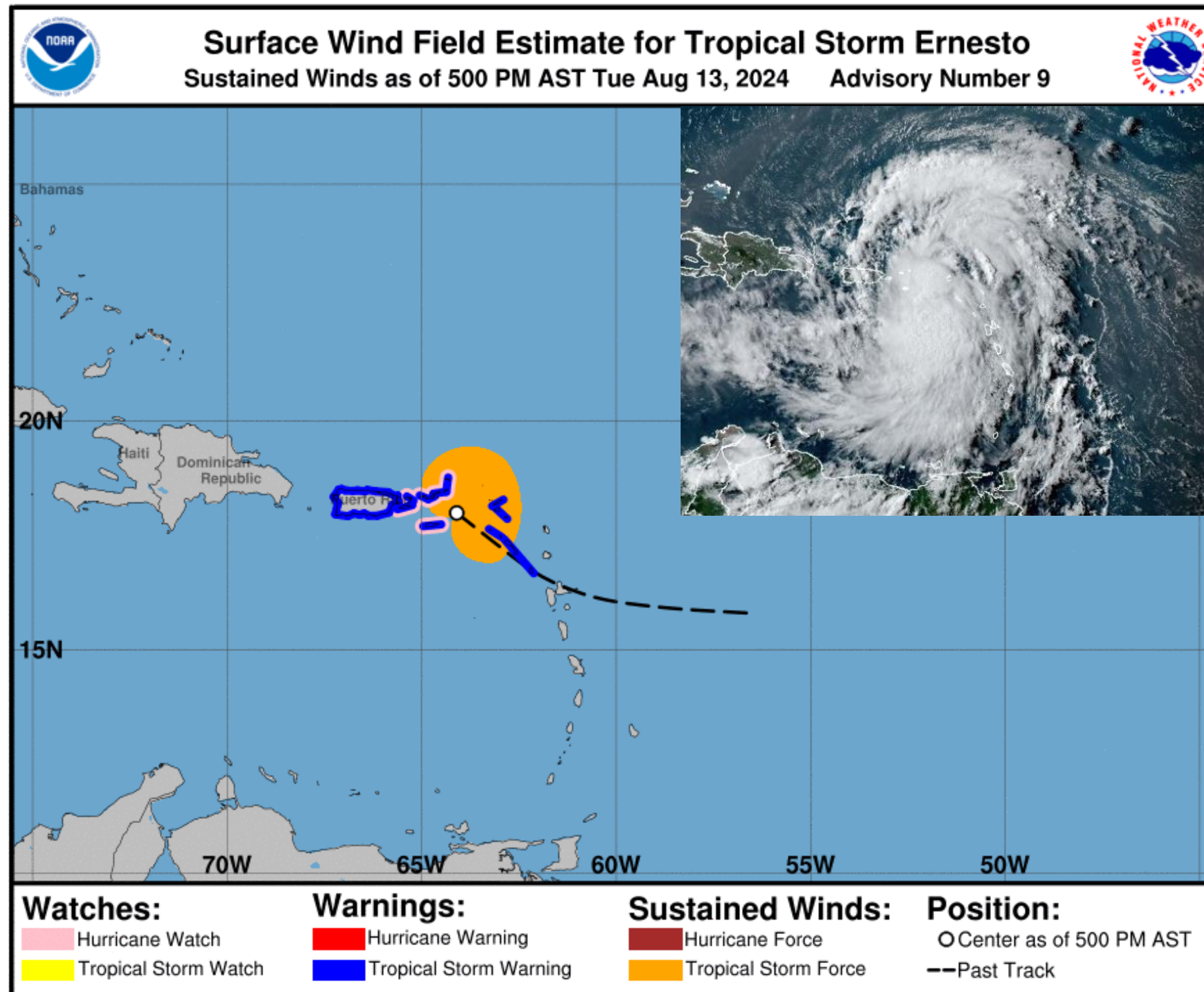


# Situation Overview

## Tropical Storm Ernesto



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**...ERNESTO HEADING TOWARD THE VIRGIN ISLANDS...**

**...EXPECTED TO BECOME A HURRICANE TONIGHT WHILE PASSING NORTHEAST OF PUERTO RICO...**

### Summary of 500 PM EDT Information

LOCATION...18.0N 64.1W

About 55 nm ESE of St. Thomas

About 120 nm ESE of San Juan Puerto Rico

Maximum Sustained Winds...50 kt

Present Movement...WNW at 16 kt

Peak Seas...18 ft

12 ft seas...240NE 60SE 0SW 180NW.

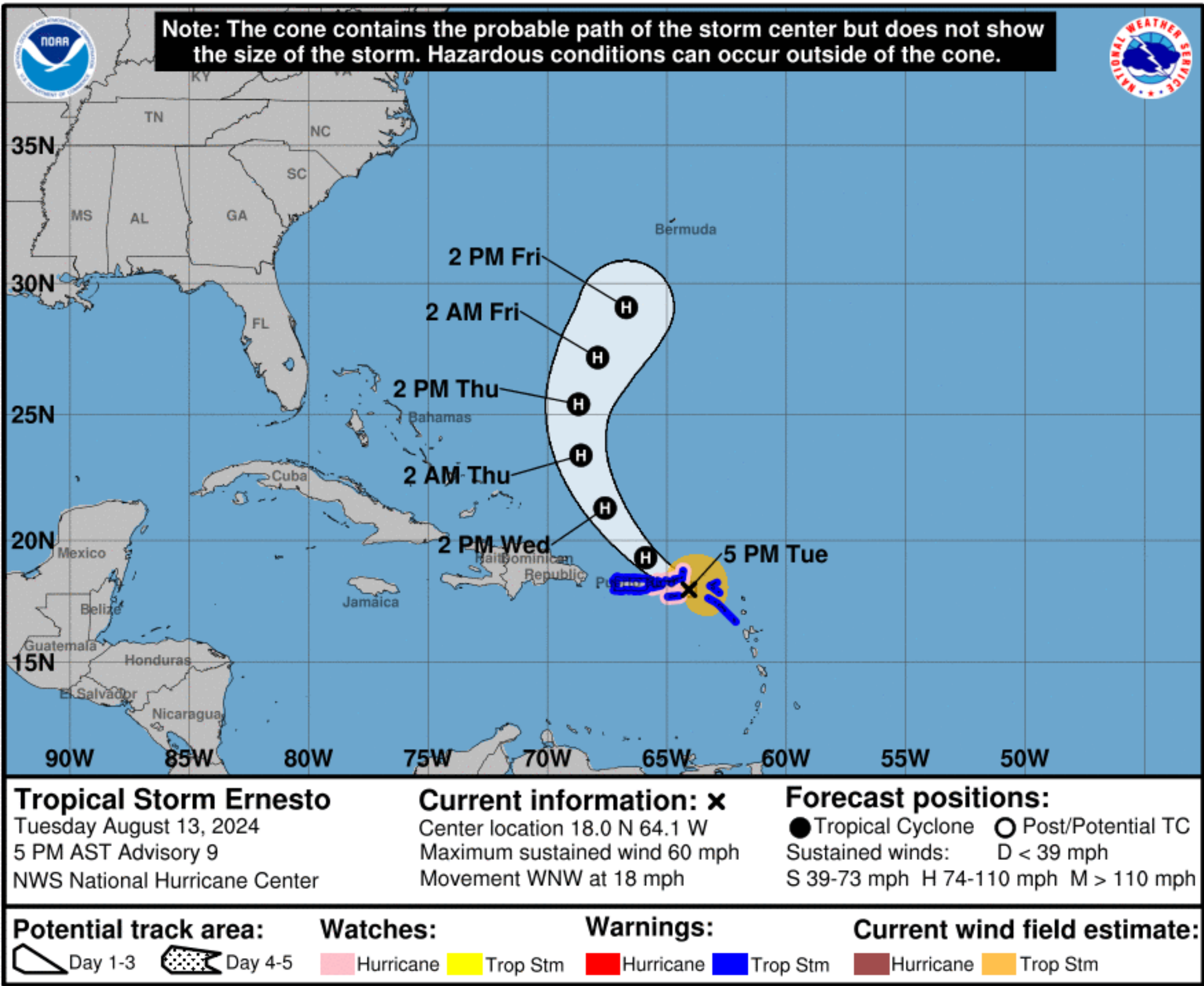


# Forecast Information

## Tropical Storm Ernesto



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**NOTE:** Do not focus on the exact track. Impacts can occur well outside the area enclosed by the cone.

- Ernesto is now making a NW turn and should pass over the Virgin Islands later this evening (Tue)
- Ernesto is expected to pass northeast and north over Puerto Rico tonight (Tue) into Wednesday
- Ernesto has the chance to strengthen into a hurricane tonight – and hurricane hunters will be investigating the storm this evening to investigate further
- Current center forecast positions through the next 5 days (if applicable) illustrated by dots
- White swath of potential track error added to each side of the forecast track through day 3
- Hatched swath of potential track error added to each side of the forecast track days 4-5

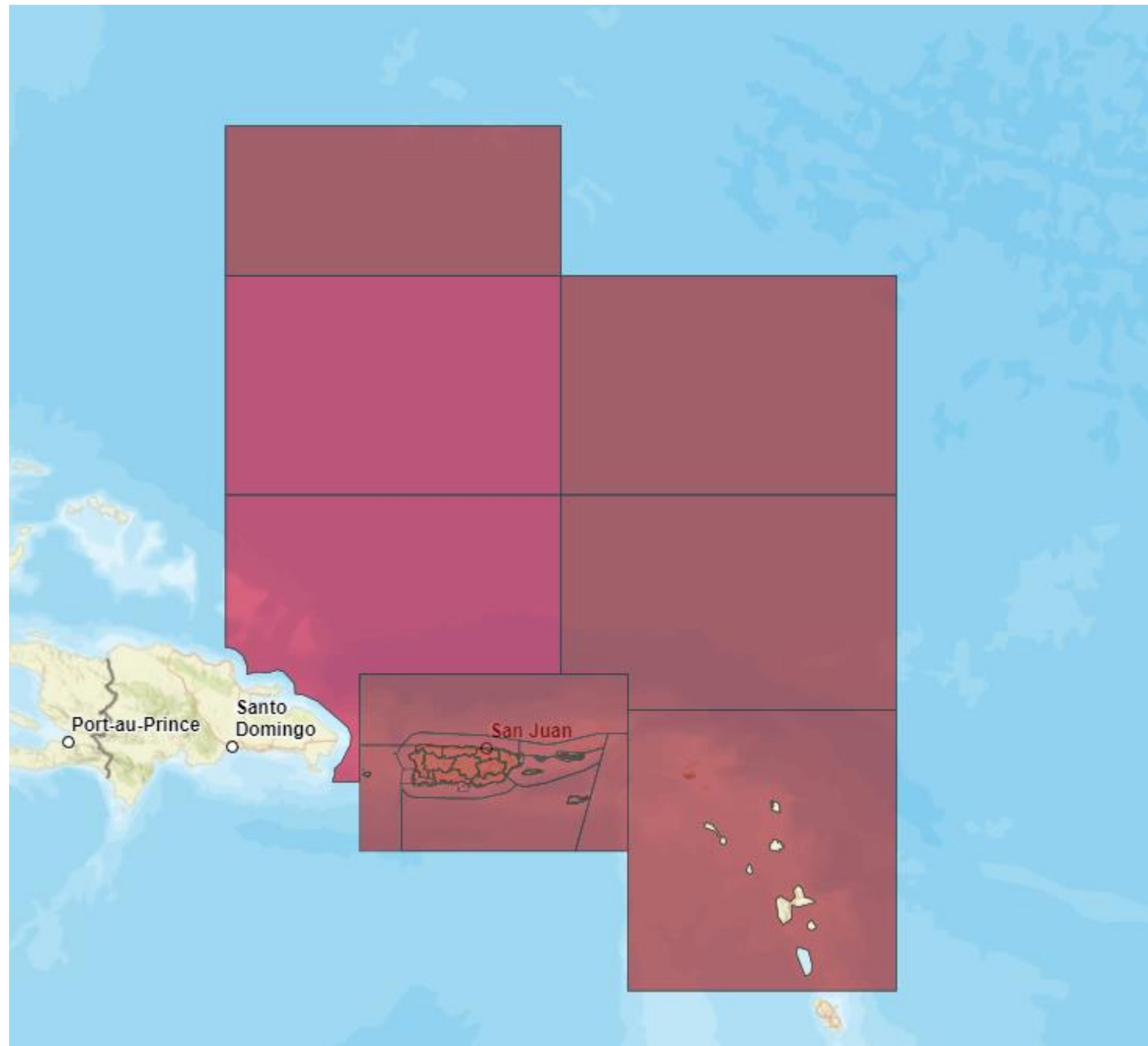
\*\* Swaths are calculated using average track errors and actual track may be well inside, or possibly outside the potential track areas indicated.

# Hazards Map

Tropical Storm Ernesto



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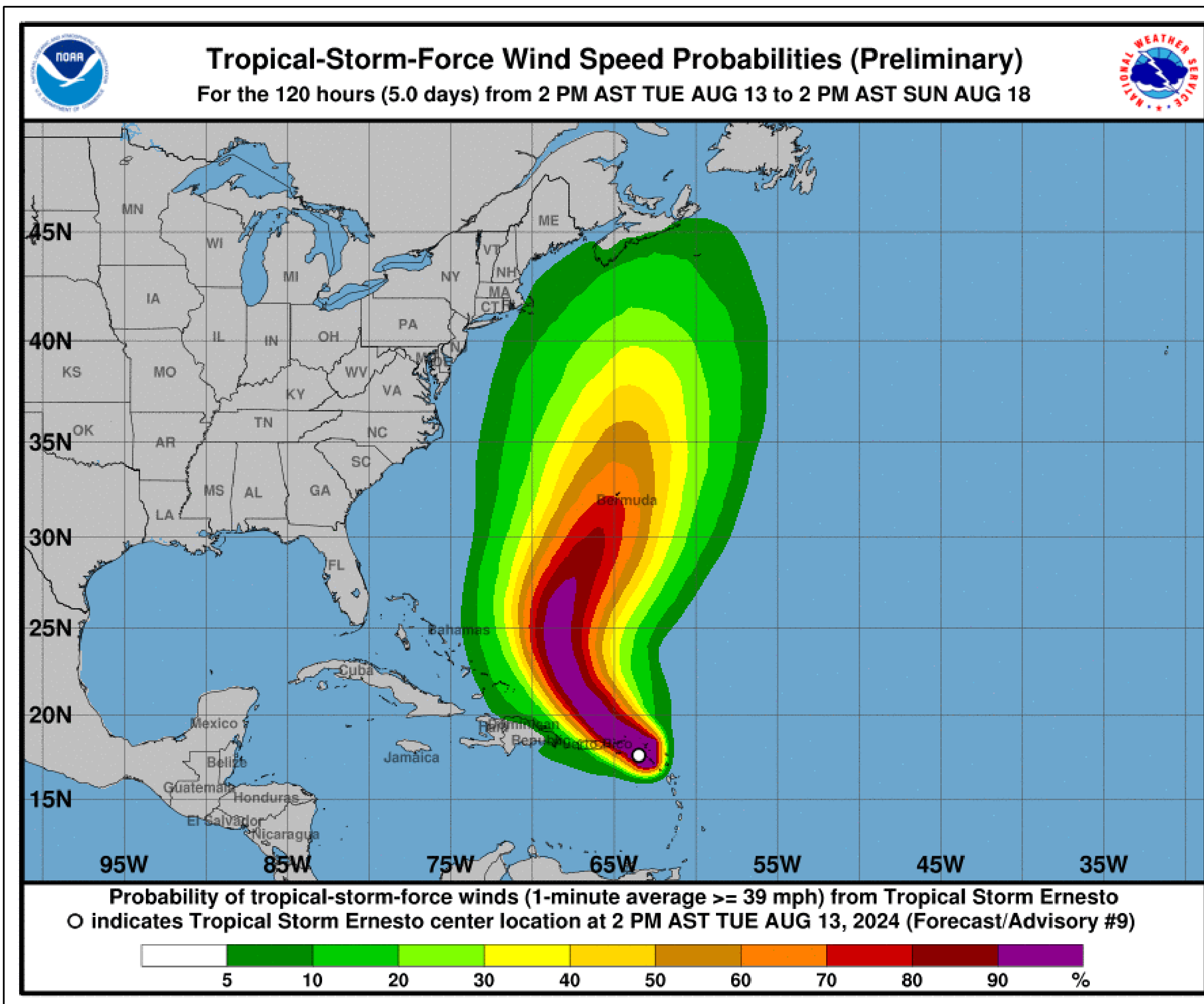


# T.S. Wind Speed Probabilities

## Tropical Storm Ernesto



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-**Green** indicates probabilities have gone down since last briefing  
-**Red** indicates probabilities have gone up since last briefing  
-**Black** indicates probabilities remain the same

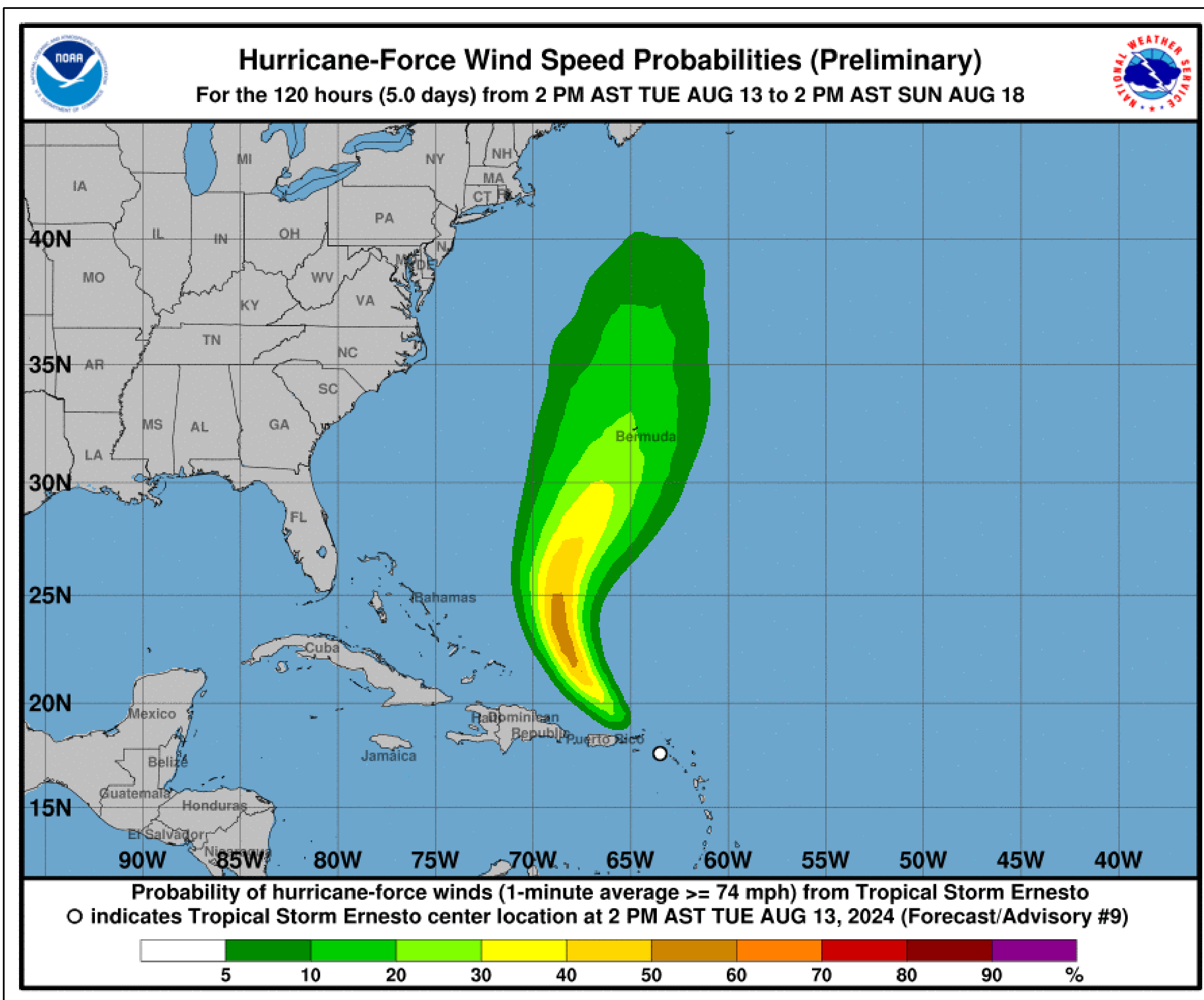
- **Ponce 20%**
  - **Aguadilla 20%**
  - **San Juan 55%**
  - **Vieques 75%**
  - **Saint Thomas 100%**
  - **Saint Croix 70%**
- Probabilities of sustained tropical storm force winds (34 kt to 63 kt) over the next 5 days, based off this cyclone's wind radii and track.
  - Clear or dark green are the lowest chances of 0-30%.
  - Yellow to orange is 31-70%
  - Red through purple are the highest probabilities of 71%-100%
  - See the color bar below the image for more details.

# Hurricane Wind Speed Probabilities

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- **None**
- Probabilities of sustained hurricane force winds (64 kt +) over the next 5 days, based off this cyclone's wind radii and track.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color bar below the image for more details.

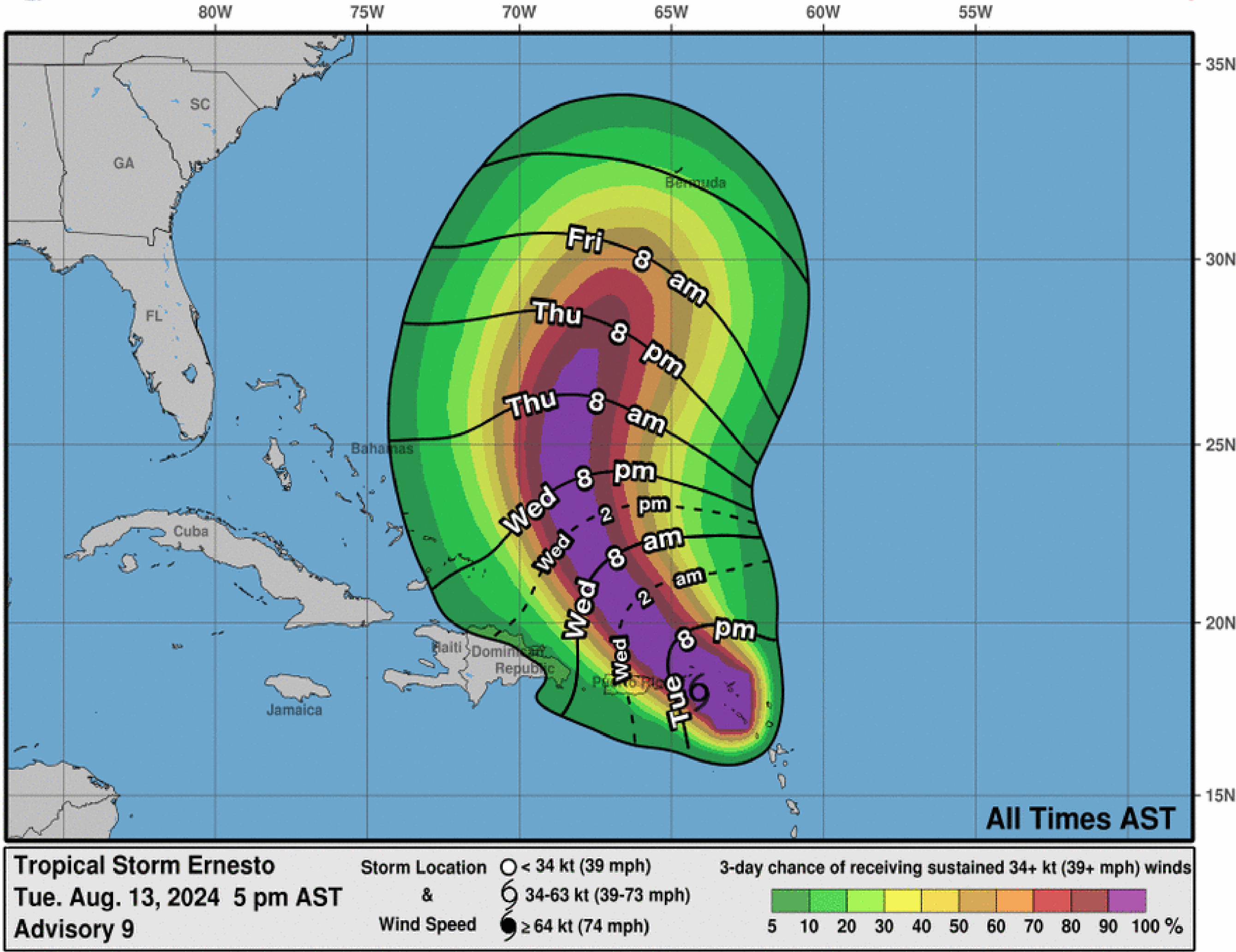
# Most Likely Time of Arrival and Tropical Storm Windspeed Probabilities

## Tropical Storm Ernesto



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0-3 Day Most Likely Arrival Time of Tropical-Storm-Force Winds



- **USVI – Tuesday evening**
- **Puerto Rico – Tuesday night**
- The most likely time of arrival of Tropical Storm Force Winds (34kt to 63 kt) for this cyclone based off the current track and wind radii.
- Clear or dark green are the lowest chances of 0-30%.
- Yellow to orange is 31-70%
- Red through purple are the highest probabilities of 71%-100%
- See the color bar below the image for more details.

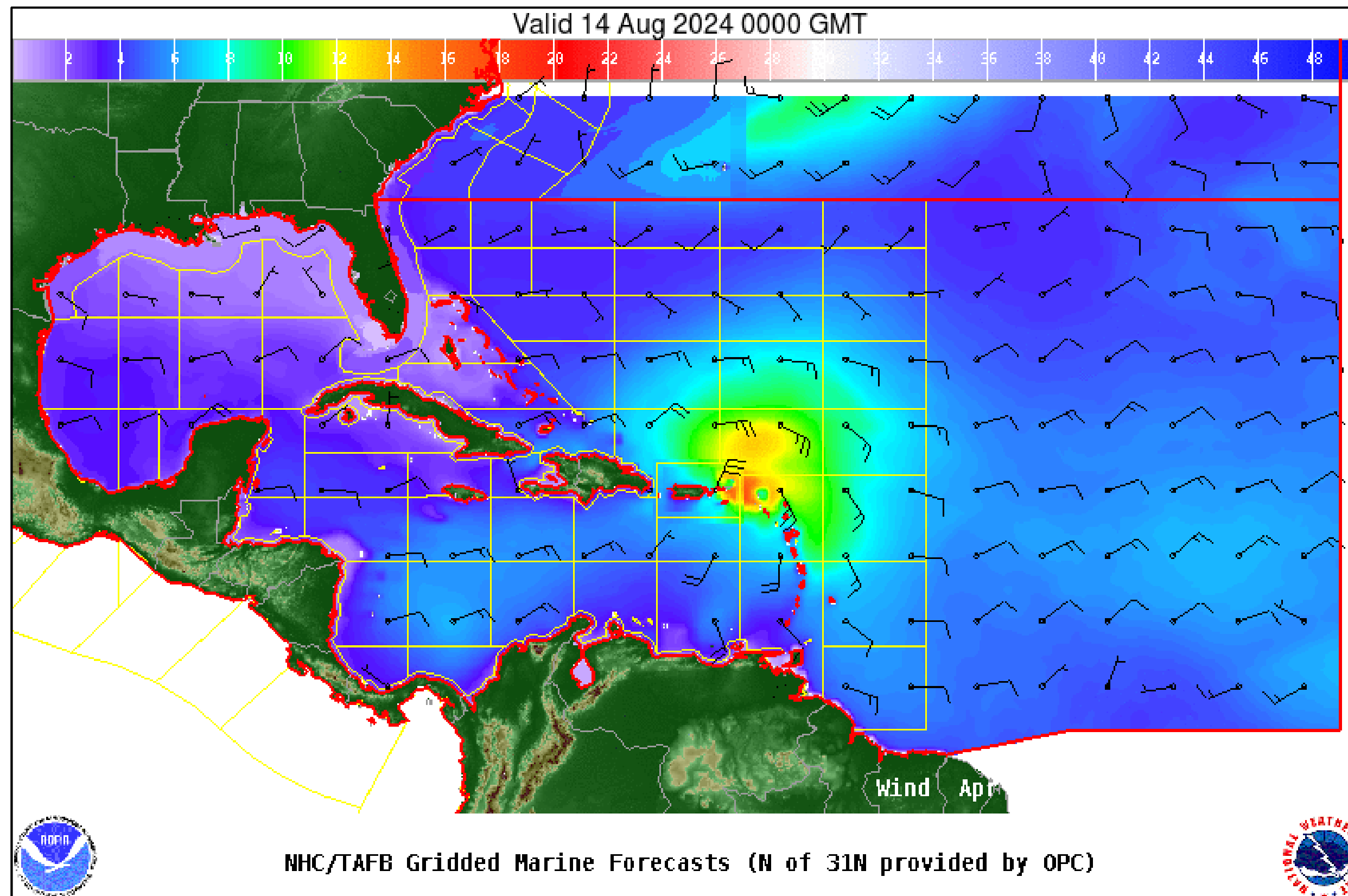


# Wind And Waves

## Tropical Storm Ernesto



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### Current Conditions

**Tuesday, August 13<sup>th</sup> at 8pm EDT**

Peak Winds: 55 kt

Peak Seas: 21 ft

- Wave heights are in feet



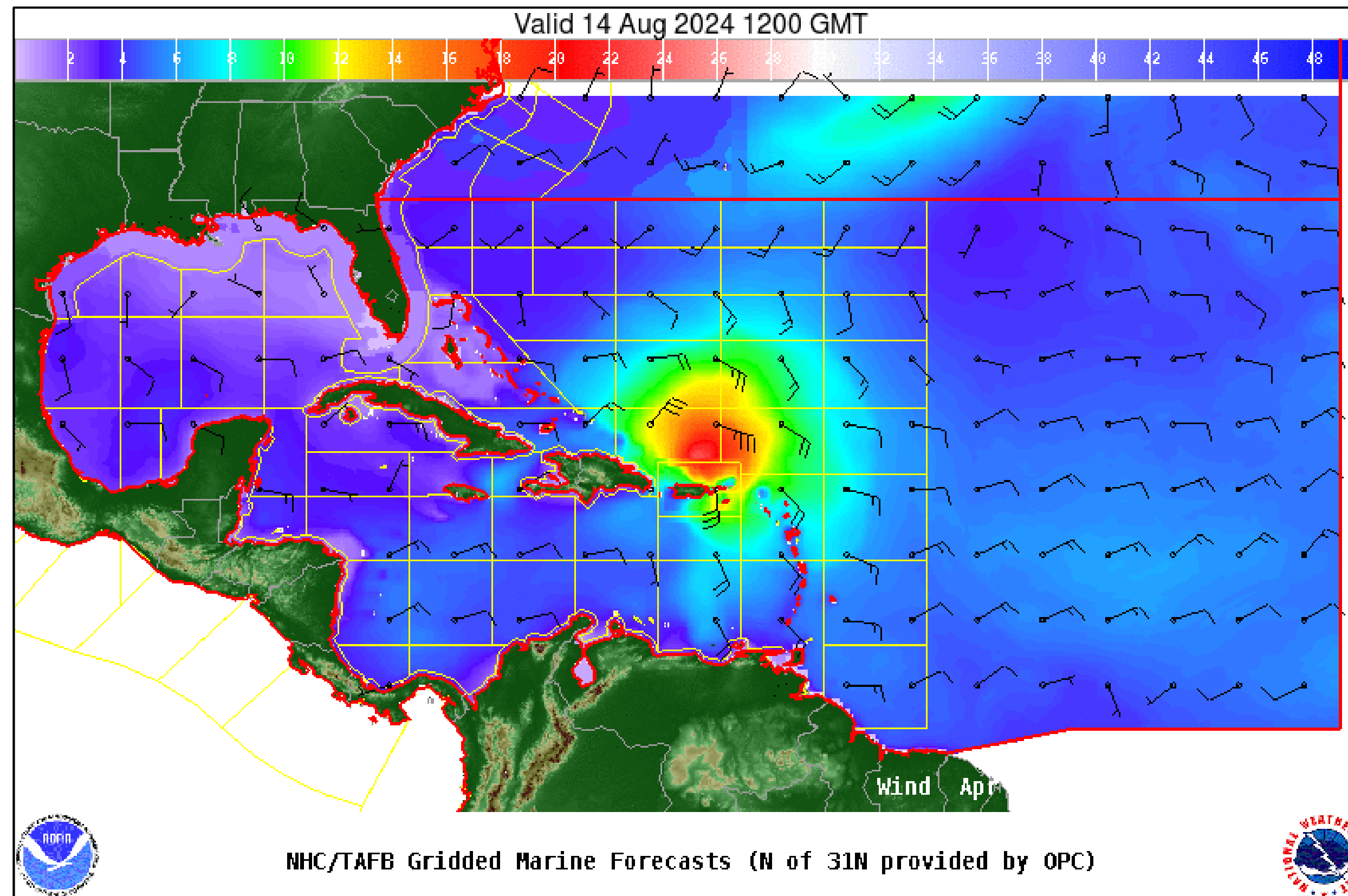
Significant Wave Height (ft)

# Wind And Waves

## Tropical Storm Ernesto



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## 12 Hour Forecast

Wednesday, August 14<sup>th</sup> at 8am EDT

Peak Winds: 65 kt

Peak Seas: 28 ft (23 ft in Puerto Rico nearshores)

- Wave heights are in feet



Significant Wave Height (ft)

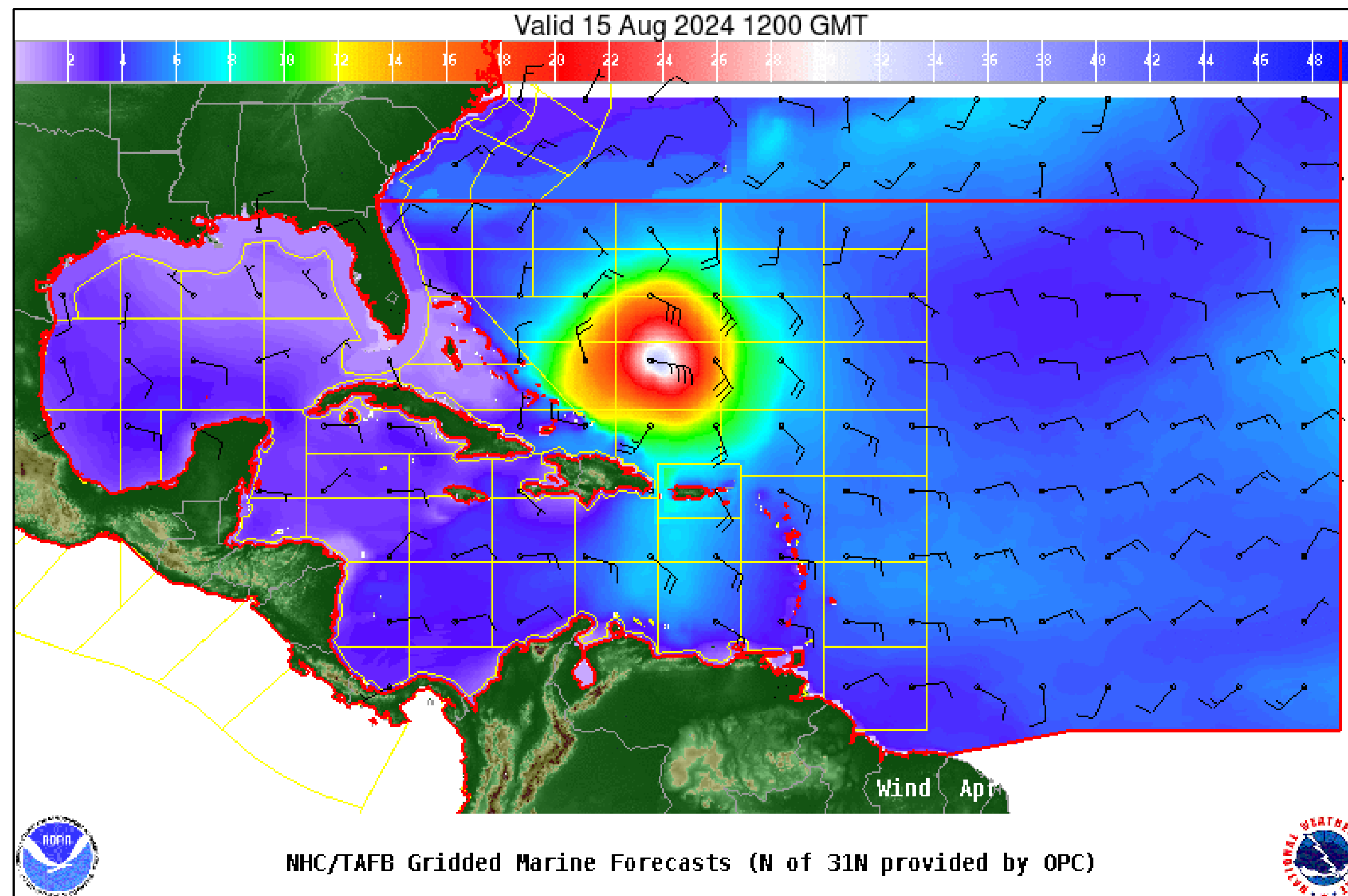


# Wind And Waves

## Tropical Storm Ernesto



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### 36 Hour Forecast

Thursday, August 15<sup>th</sup> at 8am EDT

Peak Winds: 80 kt

Peak Seas: 40 ft (less than 8 ft in Puerto Rico nearshores)

- Wave heights are in feet



Significant Wave Height (ft)

# Time of Departure

Tropical Storm Ernesto



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City	Most Likely	Latest Reasonable
St. Thomas	Early Wednesday morning	Wednesday morning
Vieques	Early Wednesday morning	Wednesday morning
San Juan	Early Wednesday morning	Wednesday afternoon

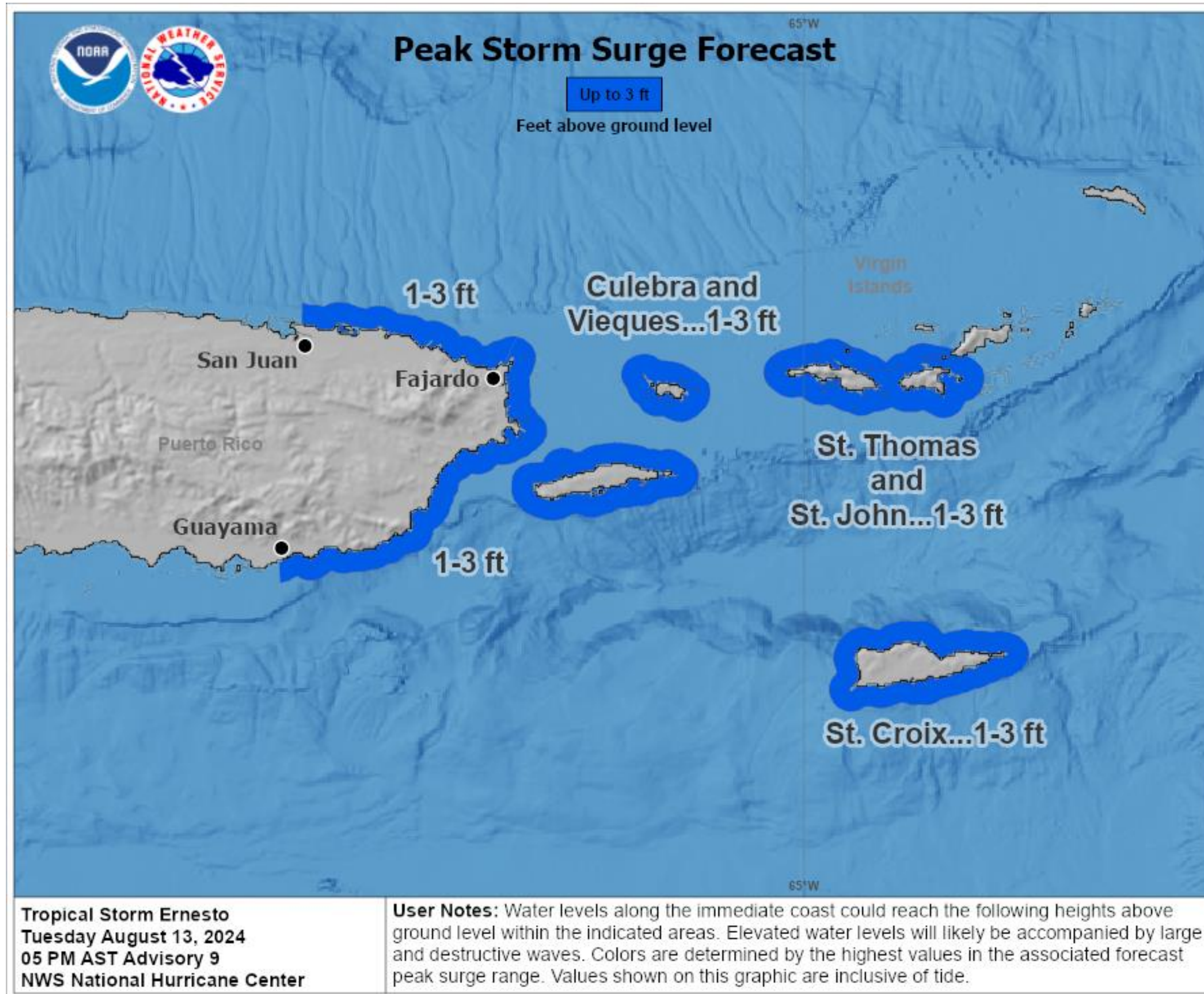


# Potential Peak Storm Surge / Watches and Warnings



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## Tropical Storm Ernesto



\* No changes to peak surge

\* Expect coastal flooding and water levels to remain elevated



# Expected Storm Total Rainfall and Chance of Rainfall Flooding

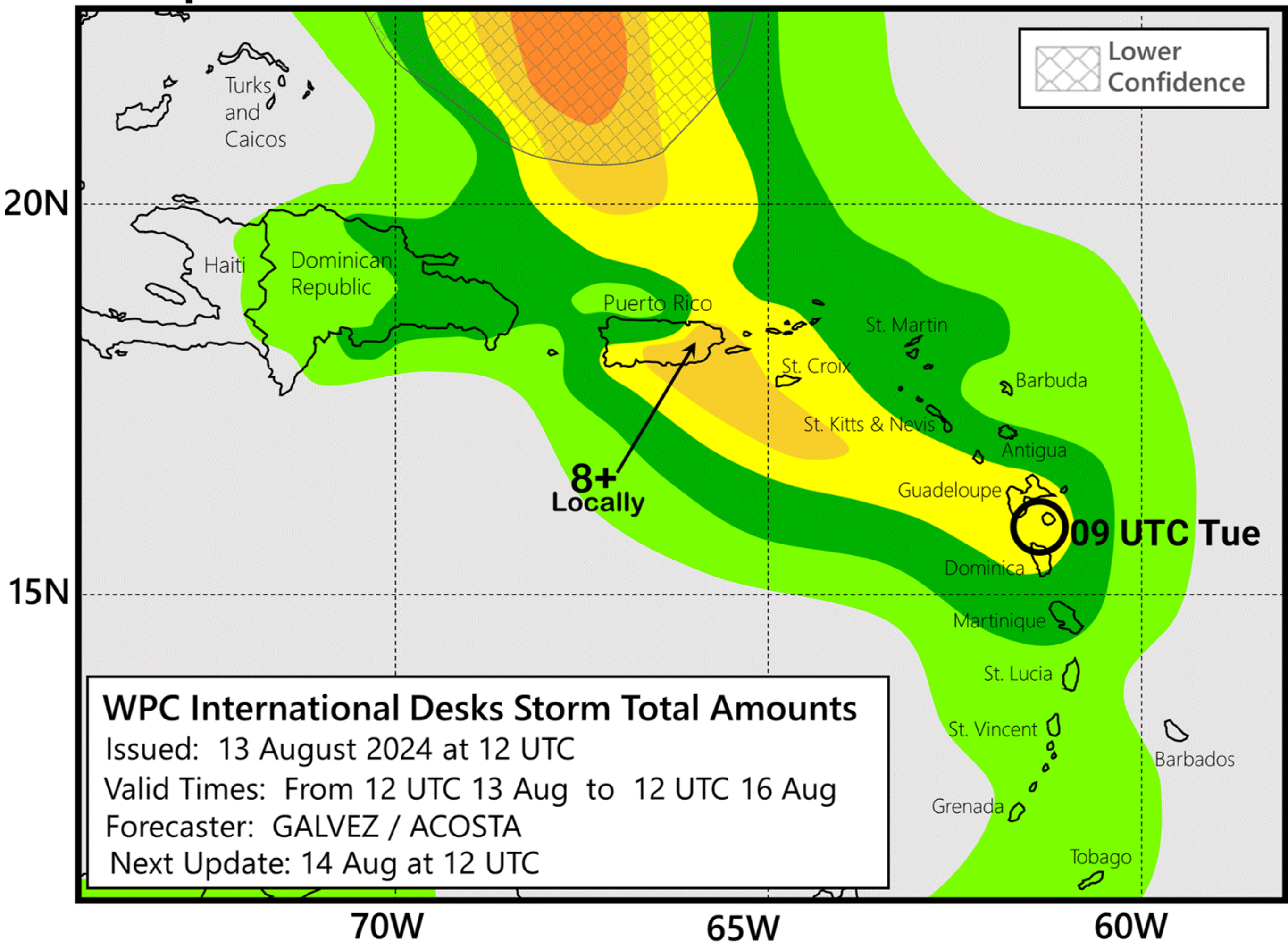


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Tropical Storm Ernesto

Images from NWS Weather Prediction Center

## Tropical Storm Ernesto Total Forecast Rainfall



Rainfall	
inches	mm
30+	750+
20-30	500-750
16-20	400-500
12-16	300-400
8-12	200-300
6-8	150-200
4-6	100-150
2-4	50-100
1-2	25-50

**NOTE**  
This forecast is for planning purposes. A detailed official forecast will be issued by the respective National Hydro Meteorological Service.

- Southeast Puerto Rico: 6 to 8 inches, maximum amounts of 10 inches
- Virgin Islands: 4 to 6 inches
- Northwest Puerto Rico: 2 to 4 inches

### WPC International Desks Storm Total Amounts

Issued: 13 August 2024 at 12 UTC  
Valid Times: From 12 UTC 13 Aug to 12 UTC 16 Aug  
Forecaster: GALVEZ / ACOSTA  
Next Update: 14 Aug at 12 UTC

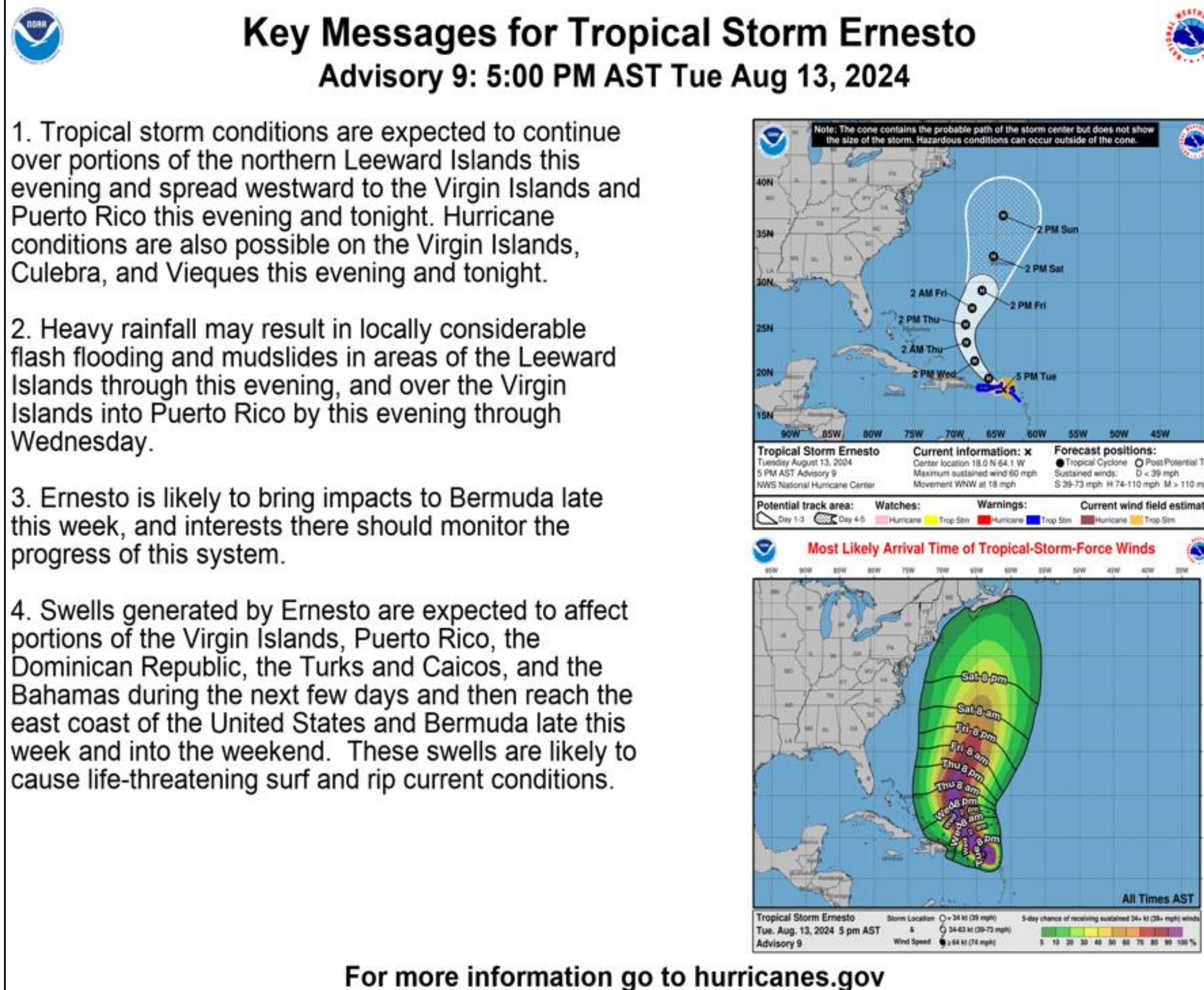


# Key Messages

## Tropical Storm Ernesto



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## Marine Key Messages:

- Seas are expected to continue building across the USVI/PR, peaking around 20-25 ft tonight through Wednesday morning
- By Wednesday afternoon, seas will slowly subside and drop below 8 ft by Thursday morning



You can contact the  
Tropical Analysis and  
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305-229-4424



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# TROPICAL STORM ERNESTO BRIEFING

**TIME of NEXT NHC Advisory:**  
**3 UTC: 11 PM EDT**

*The Next Briefing Will Be:*  
*Wednesday, 8:30 AM EDT*

*You can always find get the latest graphics and information for this storm at [www.hurricanes.gov](http://www.hurricanes.gov)*



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