# **Current Watches and Warnings**

A **Storm Surge Warning** is in effect from Bonita Beach to Suwanee River, Florida (FL), including Tampa Bay and Charlotte Harbor

A Hurricane Watch is in effect from Anna Maria Island to Yankeetown, FL

A Tropical Storm Warning is in effect for the Dry Tortugas; Bonita Beach to Suwannee River, FL

A Storm Surge Watch is in effect from the Steinhatchee River to Suwannee River, FL

A Tropical Storm Watch is in effect from north of the Suwannee River to Aucilla River, FL

# Current Details from the National Hurricane Center (NHC)

COORDINATES: 26.2° north, 83.7° west LOCATION: 145 miles (235 kilometers) south-southwest of Tampa, Florida MOVEMENT: north-northeast at 10 mph (17 kph) WINDS: 75 mph (120 kph) with gusts to 90 mph (150 kph) RADIUS OF TROPICAL STORM-FORCE WINDS: 115 miles (185 kilometers) RADIUS OF HURRICANE-FORCE WINDS: 60 miles (95 kilometers) MINIMUM CENTRAL PRESSURE: 983 millibars SAFFIR-SIMPSON SCALE RANKING\*: Category 1

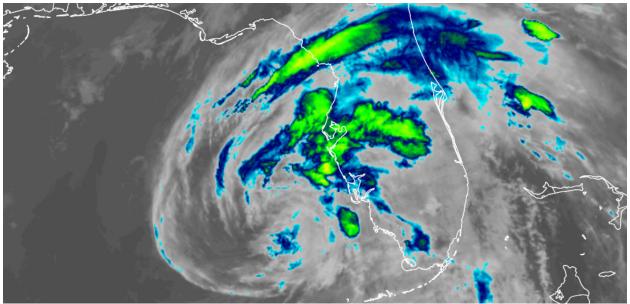
2<sup>nd</sup> FORECAST U.S. LANDFALL LOCATION: United States (Florida) 2<sup>nd</sup> FORECAST U.S. LANDFALL TIMEFRAME: Thursday morning local time

1<sup>st</sup> U.S. LANDFALL LOCATION: Lower Matecumbe Key, Florida (United States)
1<sup>st</sup> U.S. LANDFALL TIMEFRAME: approximately 11:00 PM local time Nov. 8 (04:00 UTC Nov. 9)
1<sup>st</sup> U.S. LANDFALL INTENSITY: 65 mph (100 kph) – Tropical Storm

CUBA LANDFALL LOCATION: Sancti Spiritus Province, Cuba CUBA LANDFALL TIMEFRAME: approximately 4:00 AM local time Nov. 8 (09:00 UTC) CUBA LANDFALL INTENSITY: 65 mph (100 kph) – Tropical Storm



### Latest Satellite Picture



Source: NOAA / NASA / Colorado State University (RAAMB)

### Discussion

Hurricane Eta, located approximately 145 miles (235 kilometers) south-southwest of Tampa, Florida, is currently tracking north-northeast at 10 mph (17 kph). Eta became much better organized this morning, which includes the formation of a well-defined and closed eye feature. However, since that time, the satellite and radar signature have become more ragged as dry air has entrained into the western semicircle of the cyclone. It has also penetrated into the inner-core region, resulting in a significant degradation of the convection in that portion of Eta's circulation. A couple of hours ago, a NOAA Hurricane Hunter aircraft penetrated the remnant eye feature and measured a central pressure of 983 millibars. It also found flight-level and surface-adjusted wind speeds that justify an upgrade back to hurricane intensity (Category 1).

The initial motion estimate is north-northeastward, and the latest NHC forecast model guidance is excellent agreement on Eta moving north-northeastward for the next 24 hours around the western periphery of the steering ridge of high pressure that extends westward across the western Atlantic to just off the Florida east coast. After that time, the cyclone will move north of the ridge axis and come under the influence of southwesterly to westerly mid- to upper-level flow associated with an approaching cold front, which should result in a faster northeastward motion. By 72 hours, if not sooner, Eta is forecast to merge with the aforementioned frontal system off of the southeastern United States. The new official NHC track forecast is similar to the previous advisory track, and lies just a tad east or to the right of the consensus models.

It is quite possible that Eta has peaked in intensity based on the rapid erosion of the convective pattern and an eye feature no longer evident in radar or passive microwave satellite imagery. However, there still remains a band of strong convection in the northeastern quadrant that corresponds to equivalent surface winds of at least 75 mph (120 kph). As long as that feature persists, hurricane-force winds are possible along immediate coastal areas within the Hurricane Watch area. The intensity guidance shows significantly drier air wrapping into the center by 24 hours, along with the vertical wind shear increasing from the west at that time. That combination of unfavorable environmental parameters is expected to lead to gradual weakening until landfall occurs in about 24 hours, followed by rapid weakening after landfall. Eta is forecast to degenerate into a remnant low by 60 hours due to even stronger wind shear, and dissipate by 96 hours due to frontal interaction.

#### Key Messages from the National Hurricane Center

1. There is a danger of life-threatening storm surge along portions of the Florida Gulf Coast from Bonita Beach to Suwannee River, including Tampa Bay and Charlotte Harbor. Residents in this area should follow any advice given by local officials.

2. Hurricane-force winds are possible along portions of the west coast of Florida from Anna Maria Island to Yankeetown this evening and early Thursday. Tropical-storm-force winds are expected later today along portions of the Florida Gulf Coast from Bonita Beach to Suwanee River, and are possible early Thursday from Suwannee River to Aucilla River. Interests elsewhere along the Florida Gulf Coast should monitor the progress of Eta.

3. Heavy rainfall from Eta will continue across western Cuba and south Florida and spread northward across portions of west and north Florida today through Friday. Additional flash and urban flooding will be possible in South Florida today, especially across previously inundated areas, and across portions of west and central Florida today through Friday.

#### Additional Information

STORM SURGE: The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water could reach the following heights above ground somewhere in the indicated areas if the peak surge occurs at the time of high tide:

Anclote River to Boca Grande, FL, including Tampa Bay: 3-5 feet Boca Grande, FL to Bonita Beach, FL including Charlotte Harbor: 2-4 feet Steinhatchee River to Anclote River, FL: 2-4 feet Bonita Beach to Flamingo, FL: 1-2 feet

The deepest water will occur along the immediate coast in areas of onshore flow, where the surge will be accompanied by large and dangerous waves. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances.

RAINFALL: Eta is expected to produce the following rainfall totals:

*Western Cuba:* an additional 1 to 3 inches (25 to 75 mm) today, with isolated maximum storm total accumulations of 25 inches (765 mm)

*West and central Florida:* through Friday, 2 to 4 inches, with maximum storm total accumulations of 6 inches

*North and South Florida:* an additional 1 to 2 inches, with isolated maximum storm total accumulations of 4 inches in North Florida and 20 inches in South Florida

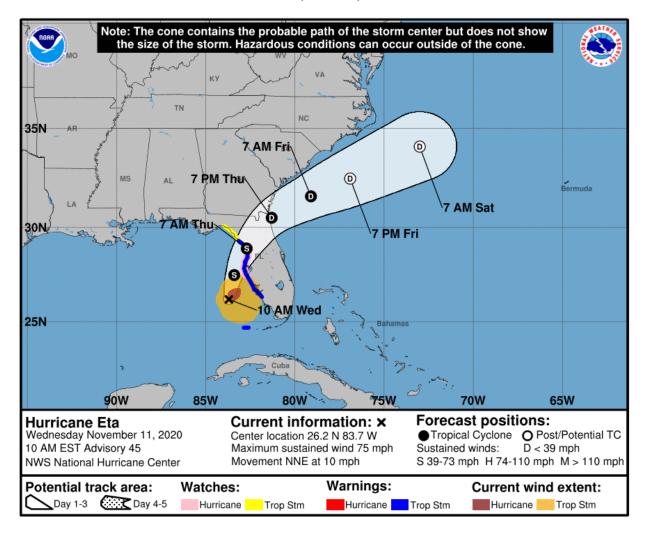
Flash and river flooding will be possible in western Cuba on Wednesday, along with landslides in areas of higher terrain. Additional flash and urban flooding will be possible in South Florida, especially across previously inundated areas. Flash, urban, and isolated minor river flooding is expected across portions of West and North Florida through Friday.

WIND: Hurricane conditions are possible in the watch area tonight and early Thursday. Tropical storm conditions are expected in the Dry Tortugas through early afternoon. Tropical storm conditions are expected in the Tropical Storm Warning area along the Florida west coast by this afternoon. Tropical Storm conditions are possible in the watch area along the Florida Big Bend region by Thursday.

TORNADOES: A few tornadoes are possible through tonight over parts of western and central Florida.

SURF: Swells generated by Eta are expected to affect the north coast of Cuba, southern and western Florida, and the Florida Keys during the next day or so. These swells are likely to cause life-threatening surf and rip current conditions.

# National Hurricane Center (NHC) Forecast





## Most Likely Arrival Time of Tropical Storm-Force Winds

# National Hurricane Center: Wind Speed Probabilities

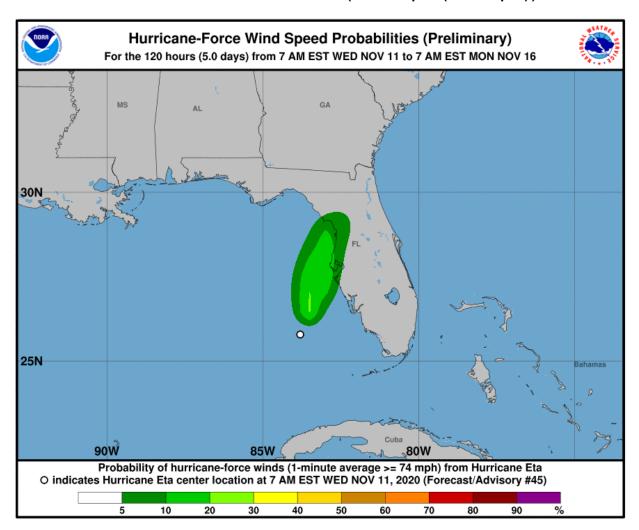
Tropical Storm-Force Wind Probabilities (≥40 mph (65 kph))



### Wind Probabilities (≥60 mph (95 kph))

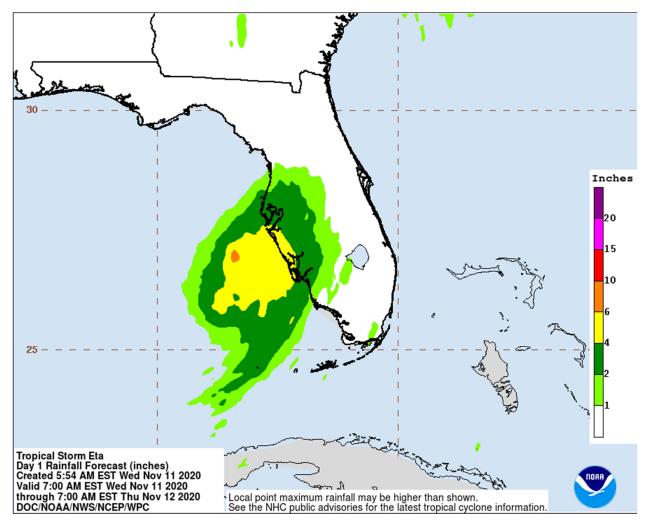


#### Hurricane-Force Wind Probabilities (≥75 mph (120 kph))



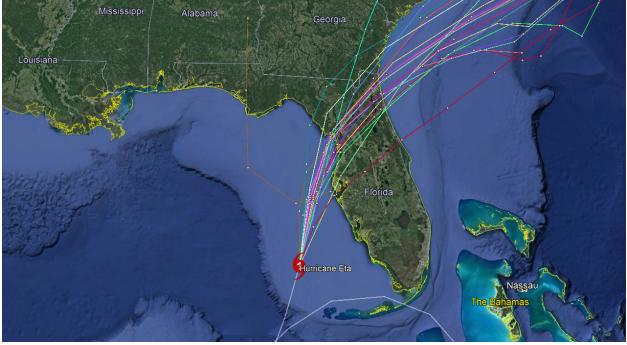
### National Hurricane Center: Storm Surge Forecast





### Weather Prediction Center: Rainfall Potential

# Current 'Spaghetti' Model Output Data



Source: NHC

# Additional Information and Update Schedule

Wind intensity forecasts and forecast track information can be found via the National Hurricane Center at <u>www.nhc.noaa.gov</u>

NEXT CAT ALERT: Thursday morning after 9:00 AM Central Time (15:00 UTC).

WIND SPEED			BASINS AND MONITORING BUREAU						
KTS1	MPH <sup>1</sup>	KPH <sup>1</sup>	NE Pacific, Atlantic	NW Pacific	NW Pacific	SW Pacific	Australi a	SW Indian	North Indian
			National Hurricane Center (NHC)	Joint Typhoon Warning Center (JTWC)	Japan Meteorological Agency (JMA)	Fiji Meteorologica I Service (FMS)	Bureau Of Meteorology (BOM)	Meteo-France (MF)	India Meteorologica I Department (IMD)
30	35	55	Tropical Depressio n	Tropical Depressio n	Tropical Depression	Tropical Depression	Tropical Low	Tropical Depressio n	Deep Depression
35	40	65	Tropical Storm	Tropical Storm	Tropical Storm	Cat. 1 Tropical Cyclone	Cat. 1 Tropical Cyclone	Moderate Tropical Storm	Cyclonic Storm
40	45	75							
45	50	85							
50	60	95			Severe Tropical Storm	Cat. 2 Tropical Cyclone	Cat. 2 Tropical Cyclone	Severe Tropical Storm	Severe Cyclonic Storm
55	65	100							
60	70	110							
65	75	120	Cat. 1 Hurricane	Typhoon	Typhoon	Cat. 3 Severe Tropical Cyclone	Cat. 3 Severe Tropical Cyclone	Tropical Cyclone	Very Severe Cyclonic Storm
70	80	130							
75	85	140							
80	90	150							
85	100	160	Cat. 2 Hurricane						
90	105	170				Cat. 4 Severe Tropical Cyclone	Cat. 4 Severe Tropical Cyclone	Intense Tropical Cyclone	
95	110	175							
100	115	185	Cat. 3 Major Hurricane Cat. 4 Major Hurricane Cat. 5 Major Hurricane						
105	120	195							
110	125	205				Cat. 5 Severe Tropical Cyclone	Cat. 5 Severe Tropical Cyclone		
115	130	210							
120	140	220						Very Intense Tropical Cyclone	Super Cyclonic Storm
125	145	230							
130	150	240		Super Typhoon					
135	155	250							
140	160	260							
>140	>160	>260							

# \*Tropical Cyclone Intensity Classifications for Global Basins

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