



TROPICAL UPDATE



10:00 AM EST

Wednesday, November 11, 2020

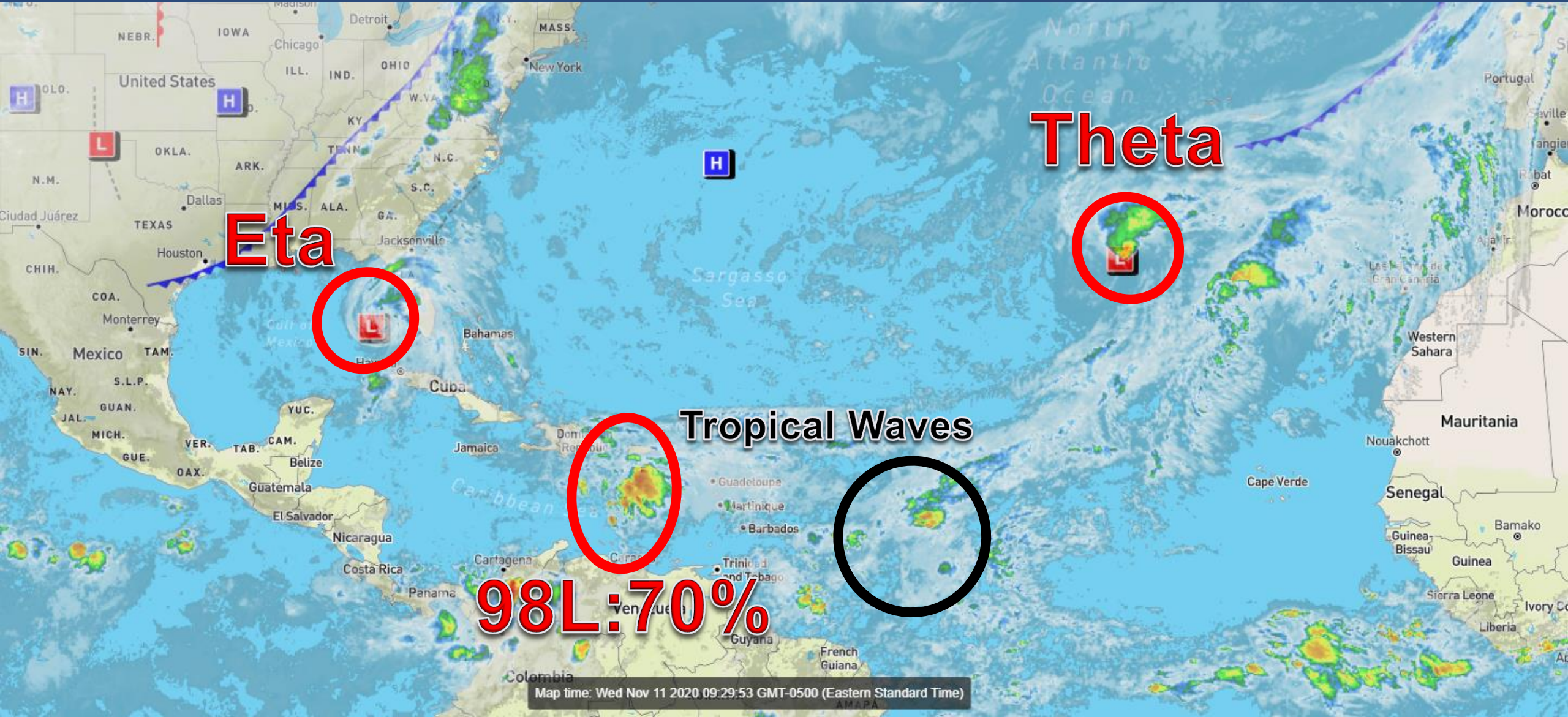
Hurricane Eta, Tropical Storm Theta,
and Invest 98L in the Caribbean (70%)

This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office, or visit the National Hurricane Center website at www.hurricanes.gov.



Atlantic Basin Satellite Image

Chance of development: — None — Low — Medium — High



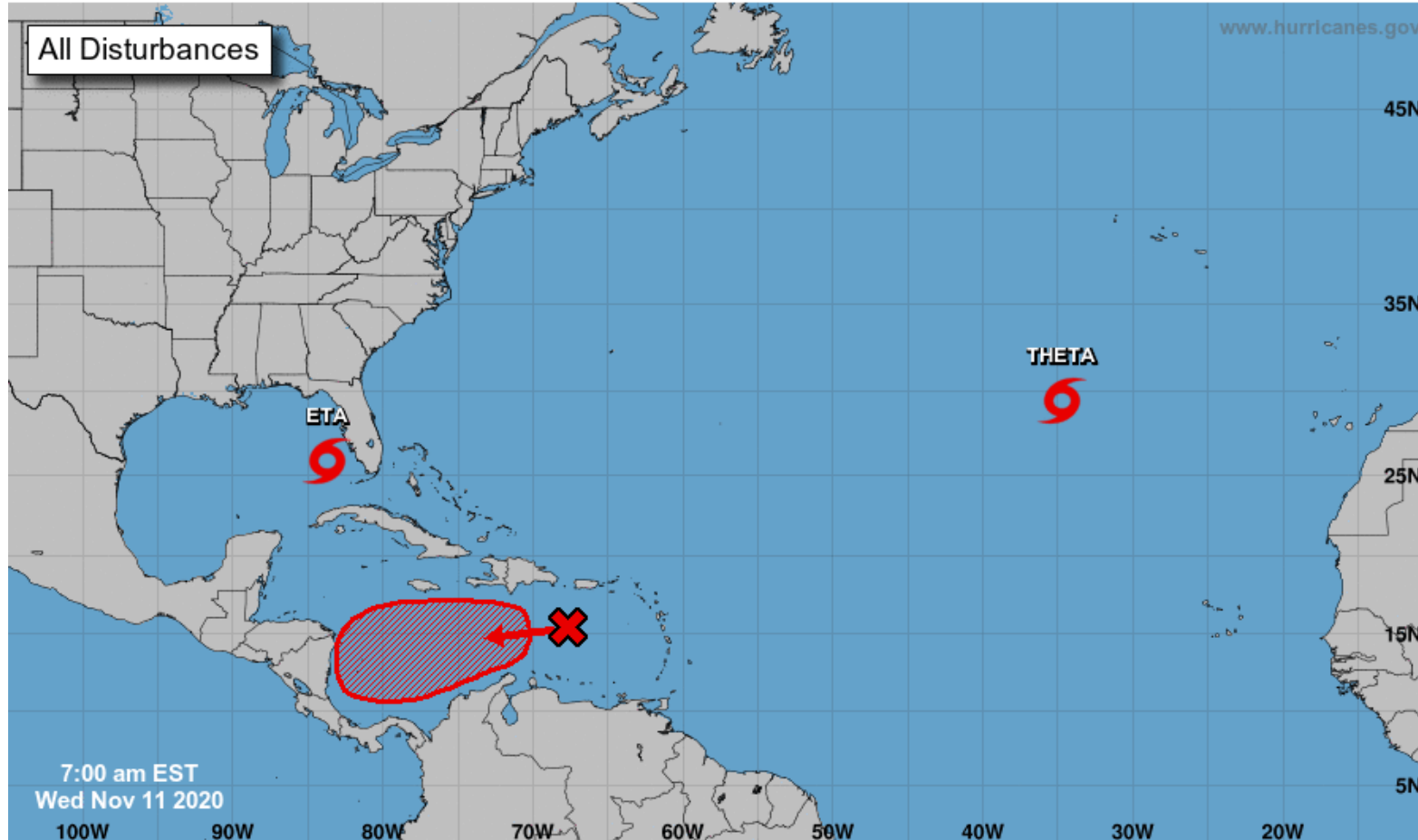


Tropical Weather Overview

Storms & Areas of Development During the Next 5 Days ([LINK](#))



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



Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

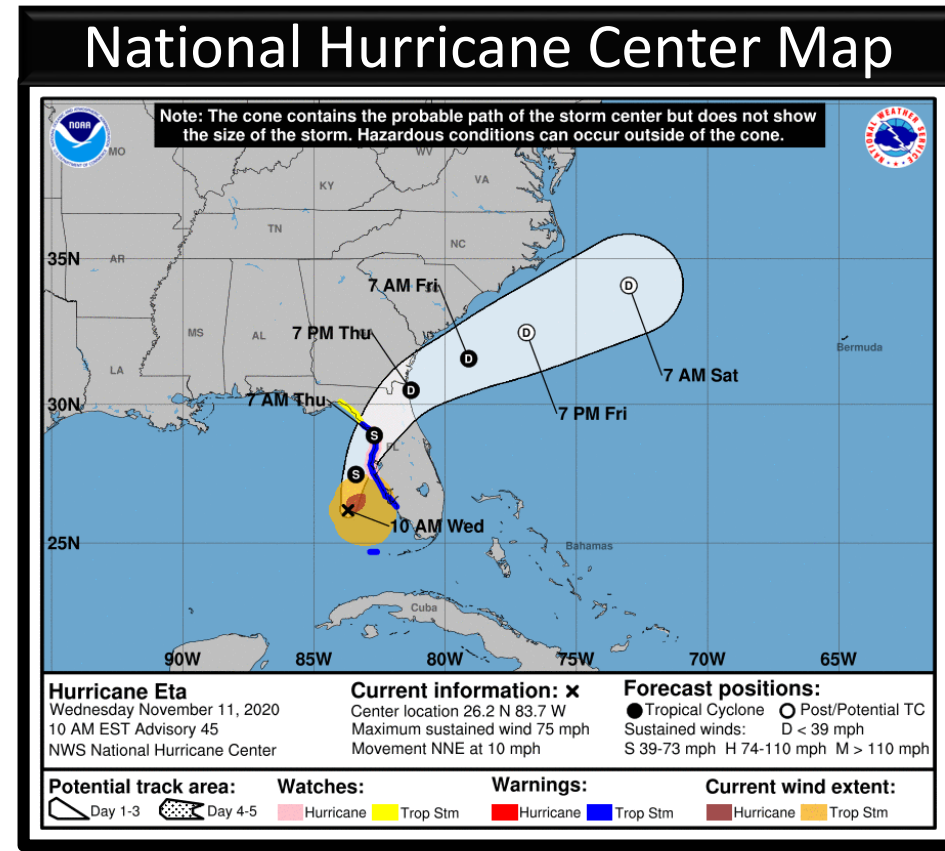
Post-Tropical Cyclone or Remnants



Hurricane Eta

10 AM ET Wednesday: Florida Threats & Changes Since Last Packet

	MINIMAL	Low	MODERATE	HIGH	EXTREME
WINDS					
STORM SURGE					
FLASH FLOODING					
TORNADOES					
	Low		MODERATE		HIGH
RIP CURRENTS					



Overview/Recent Changes:

The track has shifted east significantly towards the Florida Peninsula.

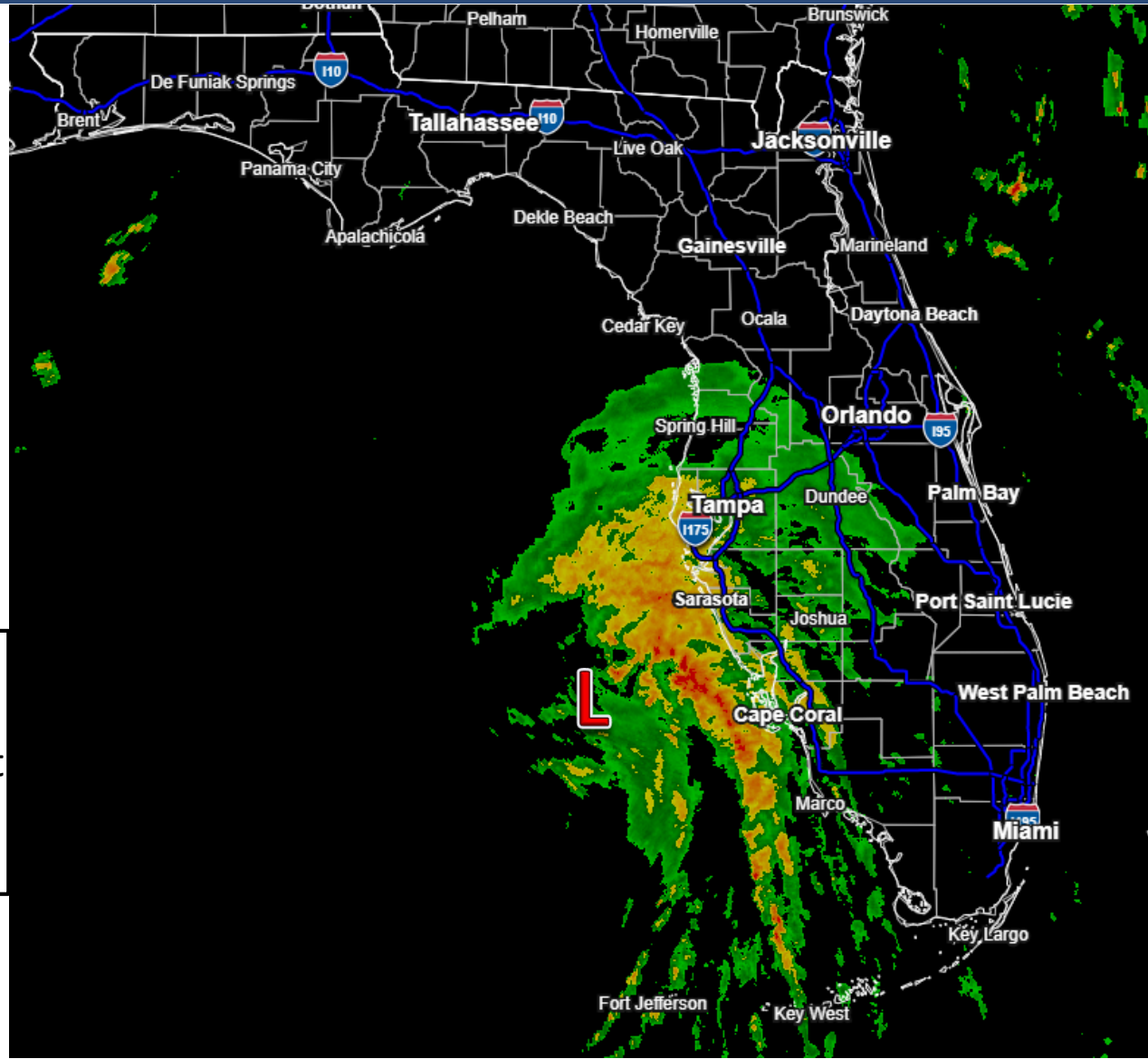
Hurricane Watches, Storm Surge Watches/Warnings, and Tropical Storm Watches/Warnings are in effect for much of the Peninsula. Heavy rainfall and isolated tornadoes will be possible in outer rain bands along the West Coast Wednesday & Thursday.



Current Florida Radar

As of 9:30 AM ET

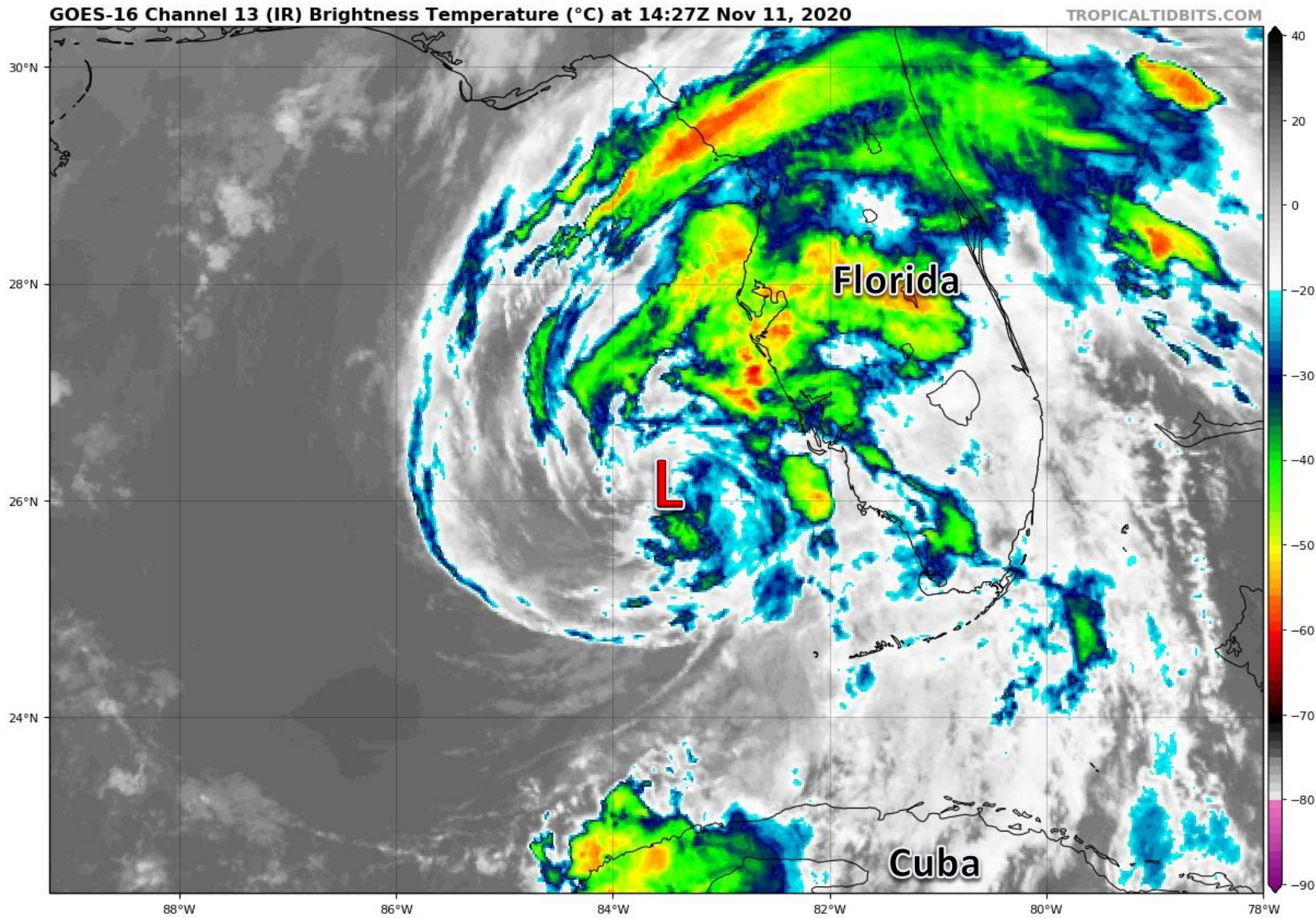
Rain bands from Eta are already impacting much of the West Coast this morning, some with gusty winds. The isolated tornado threat will increase through the day, especially as stronger rain bands move onshore.



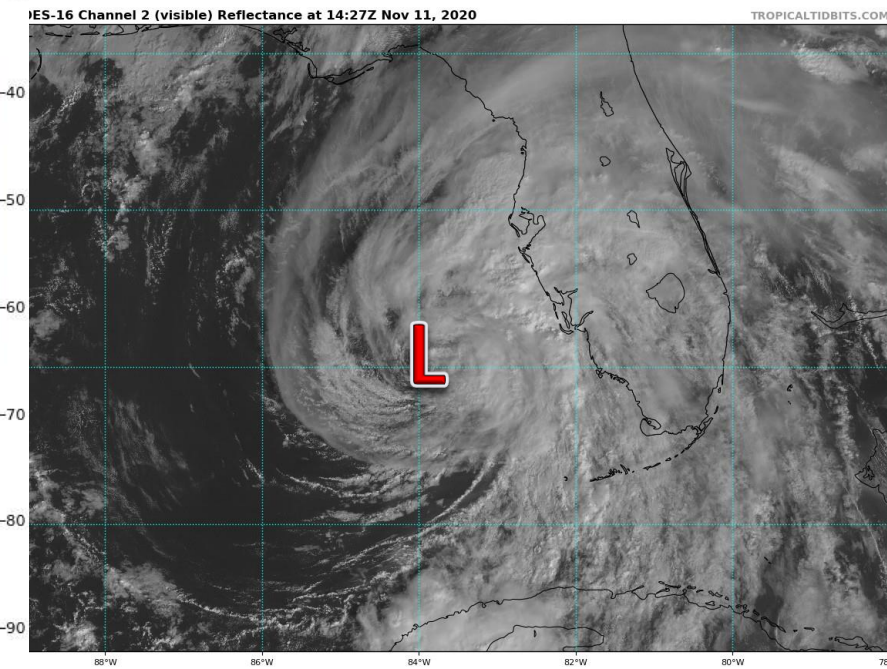


Satellite Imagery

Hurricane Eta – Southeastern Gulf of Mexico



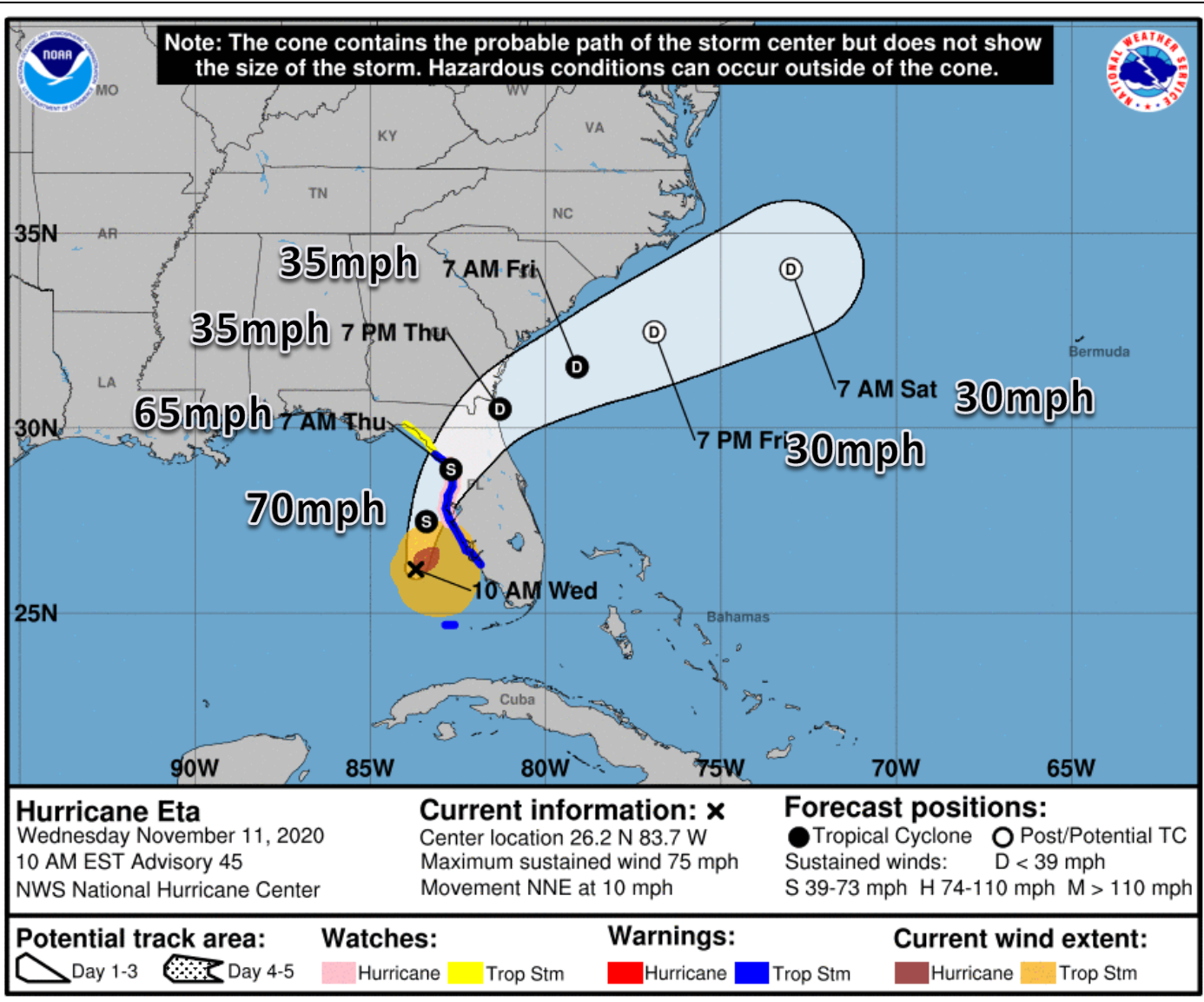
Eta has a vigorous circulation, but most of the thunderstorms are on the north and east side. Hurricane Hunters have been investigating the system and found some hurricane-force winds.





Official Forecast Track

From the National Hurricane Center – Hurricane Eta



- The center of Tropical Storm Eta is about 115 miles west-southwest of Port Charlotte, Florida, moving north-northeast at 10 mph
- Maximum sustained winds are near 75 mph, and Eta is forecast to gradually weaken until landfall, but could still be near hurricane strength. Eta will rapidly weaken once it moves onshore.
- Eta will turn northeastward as it makes landfall and will move into the Atlantic tomorrow evening.
- The track has shifted significantly east overnight.



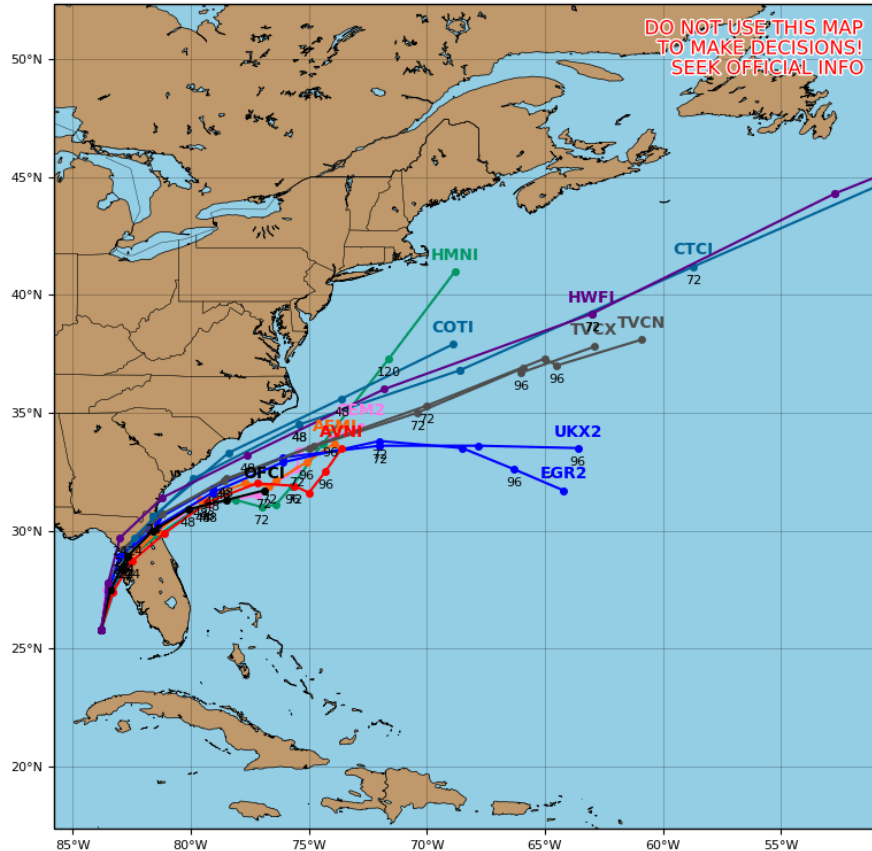
Model Forecast Tracks

Ensembles, Dynamical, and Statistical Models

Hurricane ETA Model Track Guidance

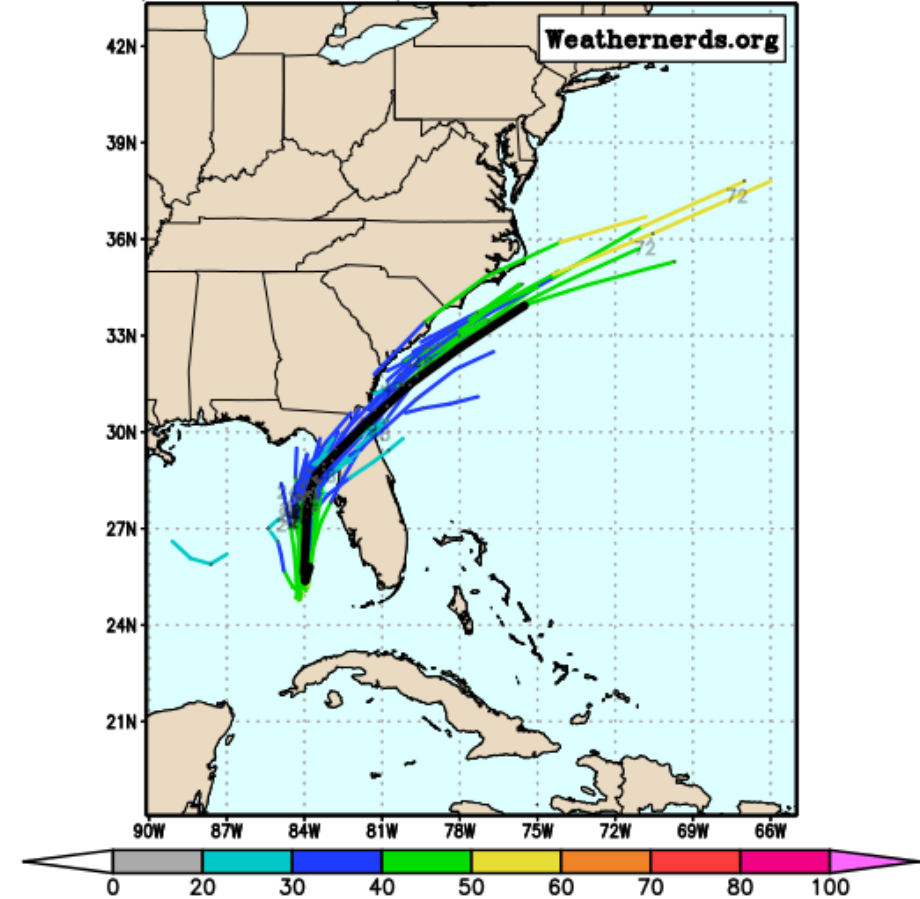
Initialized at 12z Nov 11 2020

Levi Cowan - tropicaltidbits.com



ECMWF Ensemble, init: 2020111106, AL29 Eta

color = max wind (kt)



Models have come into much better agreement since yesterday and now show a landfall likely along the Nature Coast in the next 24 hours or so. However, impacts will arrive well before landfall.



Key Messages

From the National Hurricane Center



Key Messages for Hurricane Eta Advisory 45: 10:00 AM EST Wed Nov 11, 2020



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 Suwannee 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.



For more information go to hurricanes.gov



Time of Arrival & Wind Speed Probabilities

MOST LIKELY Time of Arrival of Tropical Storm Force Winds (>39 mph)

Most Likely Arrival Time of Tropical-Storm-Force Winds



City

Chance for
TS Winds

Changes Since
Last Packet

Key West

6%

-6%

Naples

23%

+2%

Ft. Myers

26%

+14%

Tampa

96%

+51%

Cedar Key

77%

NA

Tallahassee

7%

-14%

Apalachicola

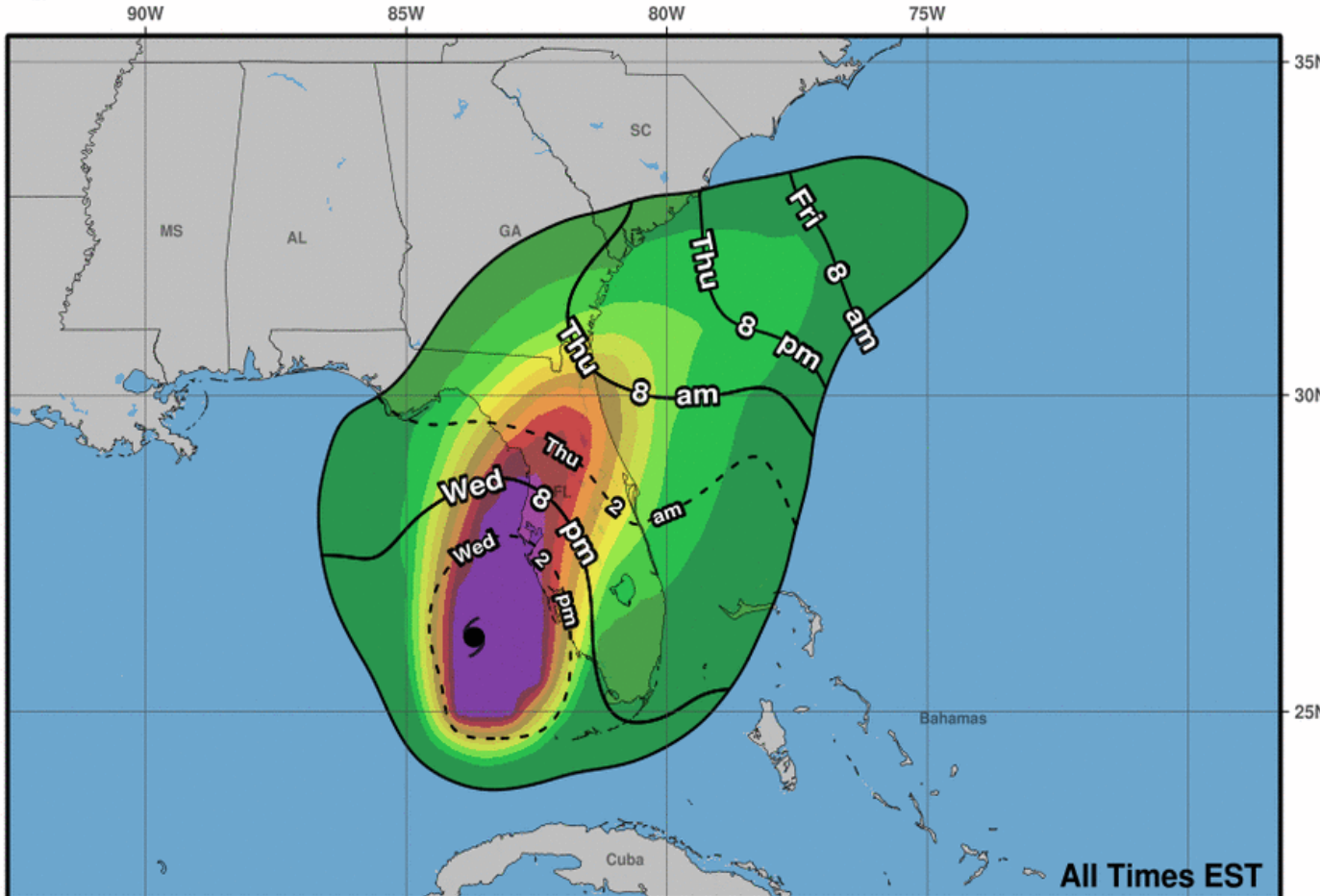
9%

-24%

Panama City

6%

-19%



In general, the threat of tropical storm force winds has **INCREASED** significantly along the West Coast and **DECREASED** significantly elsewhere.

Hurricane Eta
Wed. Nov. 11, 2020 10 am EST
Advisory 45

Storm Location & Wind Speed

○ < 34 kt (39 mph)
● 34-63 kt (39-73 mph)
● ≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (39+ mph) winds

5 10 20 30 40 50 60 70 80 90 100 %



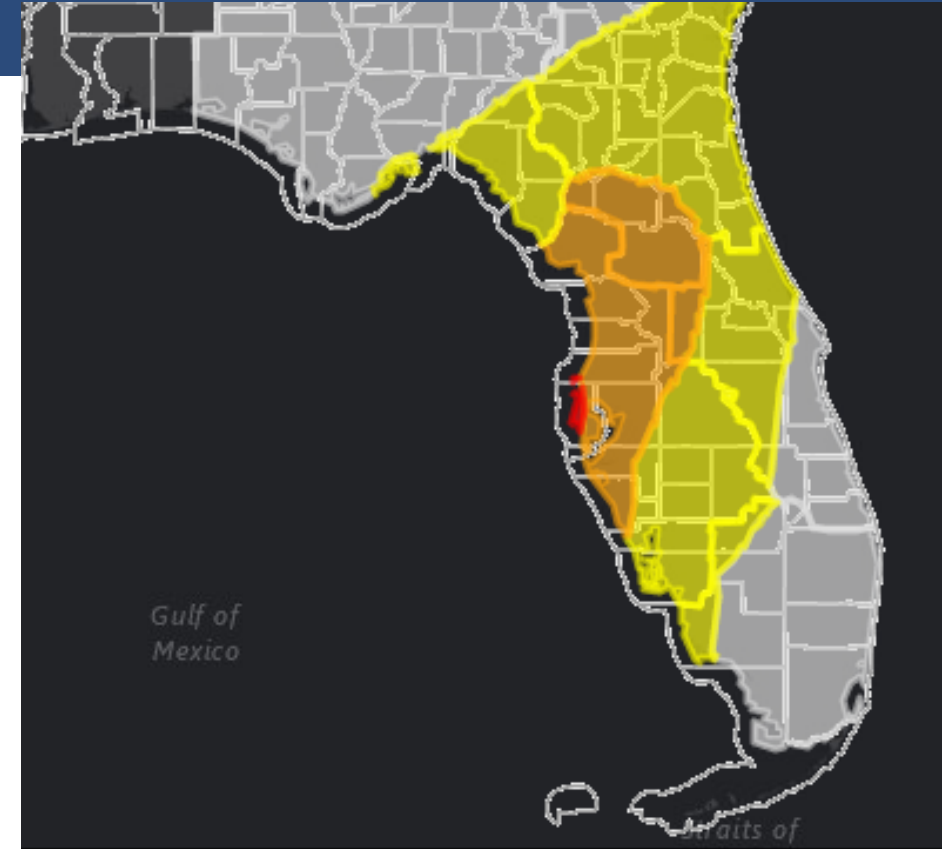
Damaging Wind Threat Overview

Hurricane Eta

The greatest wind threat will be along the West Coast of the Peninsula, generally west of I-75. Hurricane force wind, especially in gusts, is possible in Pinellas County.

Sustained winds of 45-55 mph are possible with gusts to 60-65 are possible in the orange areas, generally west of I-75 .

Gusts to 35-45 mph are possible across inland areas (yellow).



[\[Download KML\]](#)

[\[Download Image\]](#)

[https://www.weather.gov/srh/tropical?
office=tbw](https://www.weather.gov/srh/tropical?office=tbw)

Click on “Threats and Impacts” Tab

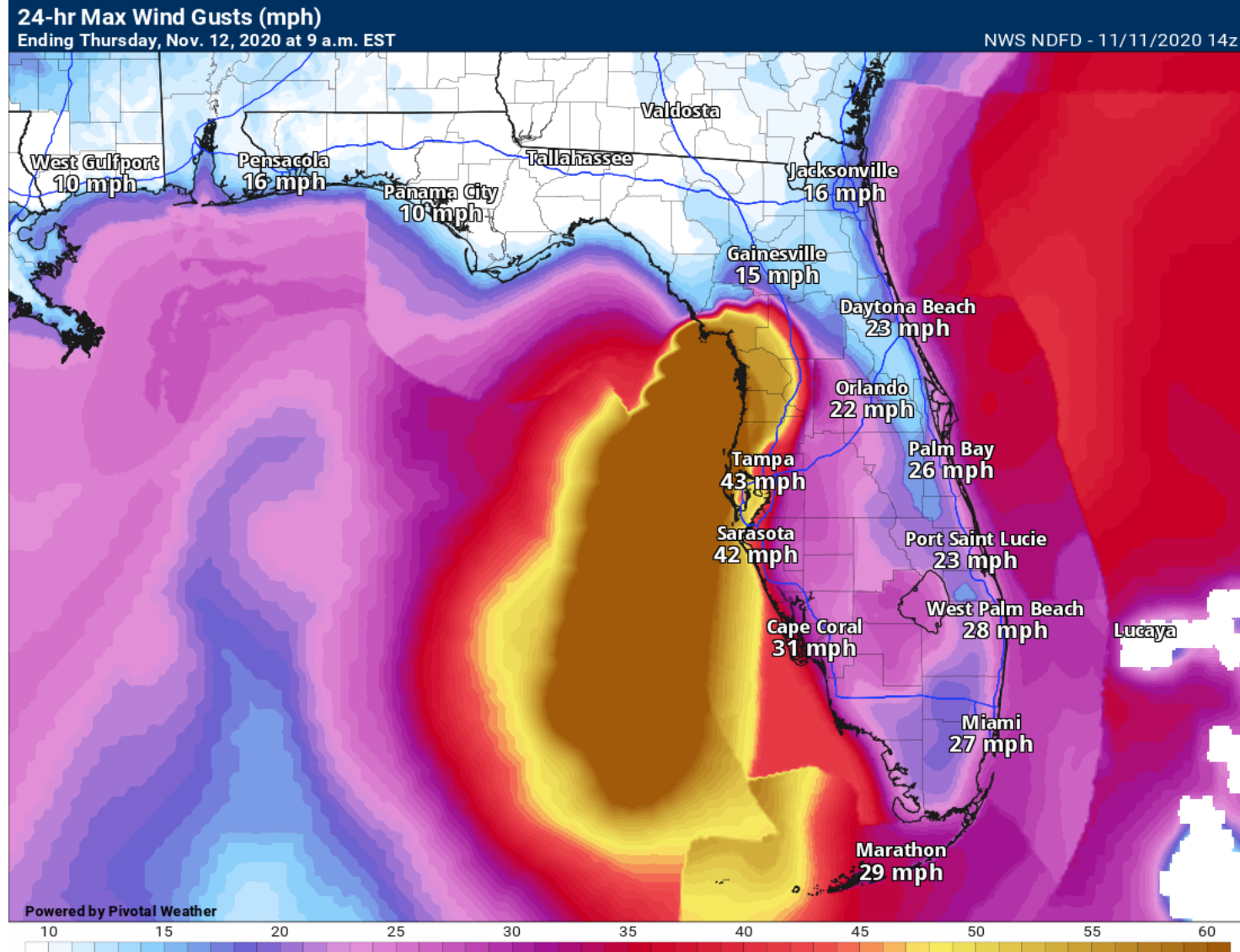
Wind Threat
Potential for wind greater than 110 mph
Potential for wind 74 to 110 mph
Potential for wind 58 to 73 mph
Potential for wind 39 to 57 mph
Wind less than 39 mph



Maximum Wind Gusts

Next 24 Hours

Gusts of 50-75 mph are possible along the Nature Coast with 35-50 mph gusts across Southwest Florida into Tampa Bay. Strong wind gusts of 30-45 mph are possible into tomorrow morning in Northeast Florida.





Wind Watches and Warnings

In Effect Until Further Notice

Tropical Storm Warnings:

Gilchrist, Alachua, Levy, Marion, Citrus, Hernando, Pasco, Sumter, Lake, Pinellas, Hillsborough, Polk, Manatee, Sarasota, coastal Charlotte, coastal Lee, Dry Tortugas

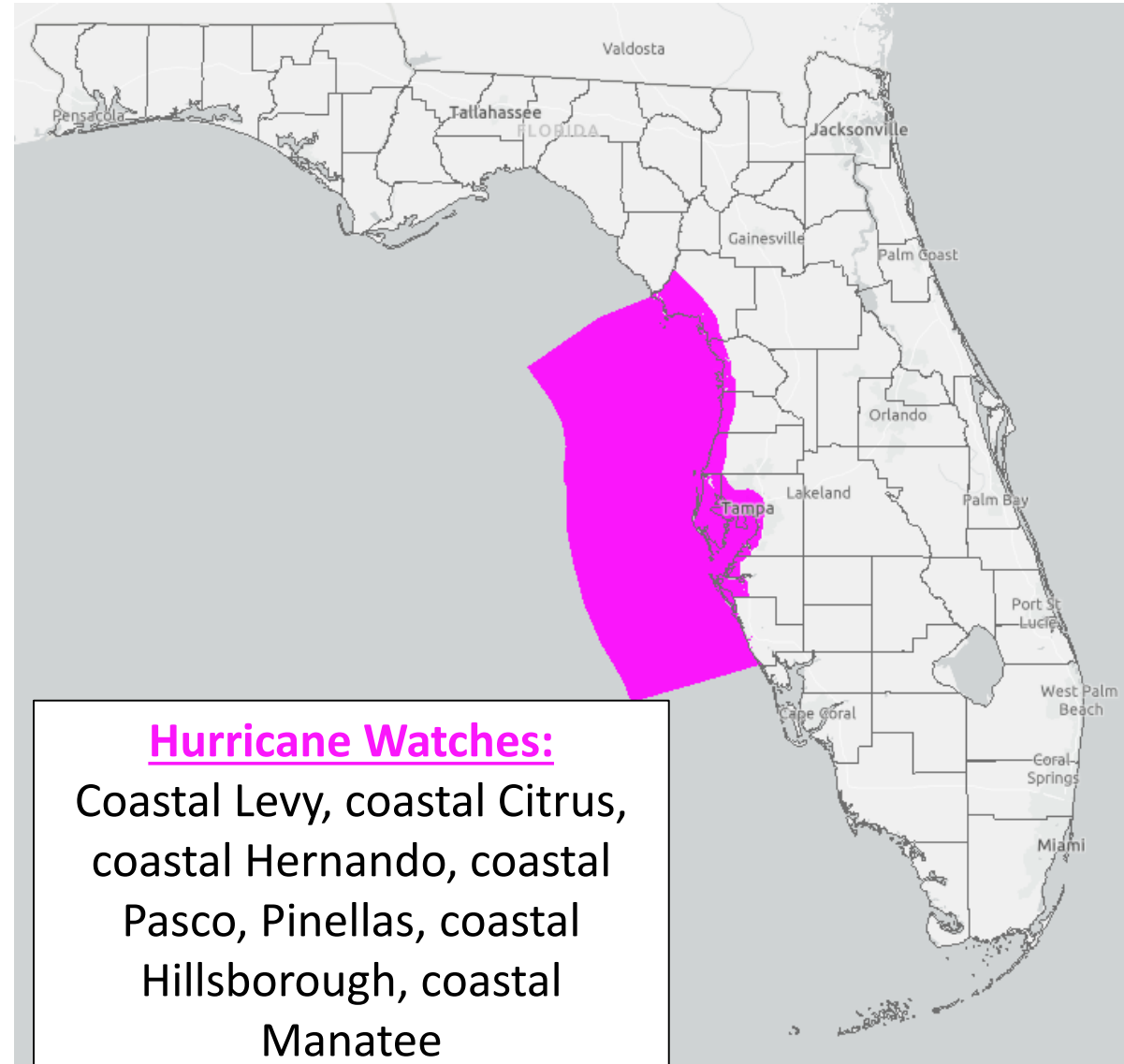
Tropical Storm Watch

Coastal Taylor, coastal Dixie, Bradford, Clay, Putnam, St. Johns, Flagler, Volusia



Hurricane Watches:

Coastal Levy, coastal Citrus, coastal Hernando, coastal Pasco, Pinellas, coastal Hillsborough, coastal Manatee



Tropical Storm & Hurricanes

Watches Versus Warnings

WATCH

Tropical storm and/or hurricane conditions are **POSSIBLE** in Watch area

Issued up to 48 hours in advance of tropical storm force winds

WARNING

Tropical storm and/or hurricane conditions are **EXPECTED** in Warning area

Issued up to 36 hours in advance of onset of tropical storm force winds

Hurricane preparedness activities become difficult once winds reach tropical storm force. **Watches & Warnings are issued in advance of onset of tropical storm force winds, 39-73mph**



NWSMobile



weather.gov/mob

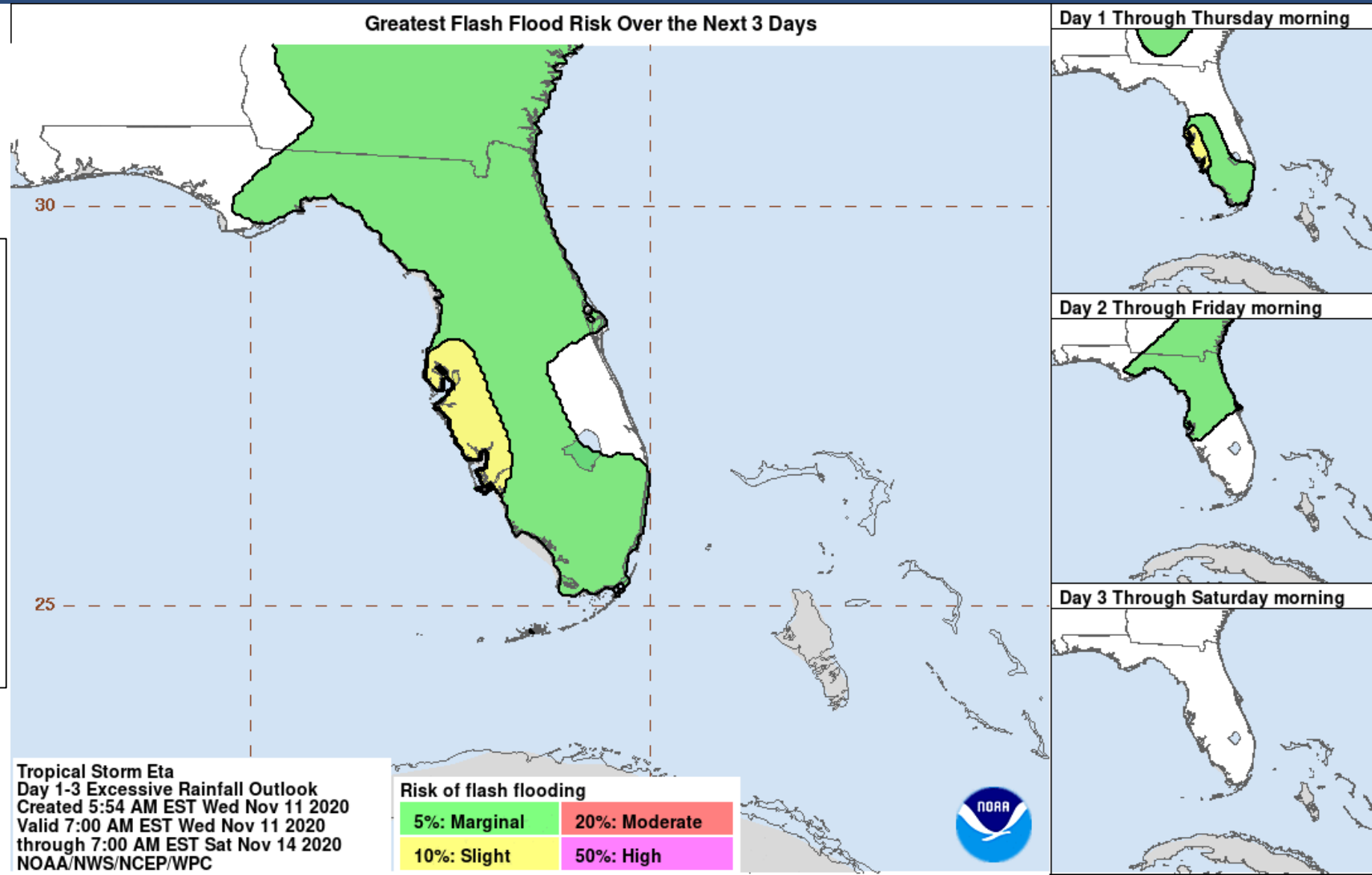


Flash Flood Outlook

3-Day Event Summary

Additional flash flooding is possible across Southeast Florida today.

An isolated flash flood threat develops along the West Coast tomorrow afternoon and continuing through Thursday.



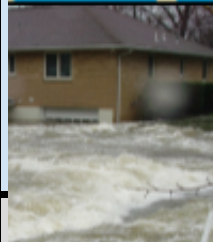




Flash Flood Risk Categories

Understanding the Weather Prediction Center Risk Scale

Understanding WPC Excessive Rainfall Risk Categories

<div>No Area/Label</div> <div>Flash floods are generally not expected.</div> <div>www.wpc.ncep.noaa.gov @NWSWPC</div>	<div>MARGINAL (MRGL)</div> <div>Isolated flash floods possible</div> <div>Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.</div>	<div>SLIGHT (SLGT)</div> <div>Scattered flash floods possible</div> <div>Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.</div>	<div>MODERATE (MDT)</div> <div>Numerous flash floods likely</div> <div>Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.</div>	<div>HIGH (HIGH)</div> <div>Widespread flash floods expected</div> <div>Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.</div>
<div>Flash flooding near me?</div> <div>Flash Flooding</div> <div>NO Flash Flooding</div>				
<div> WEATHER PREDICTION CENTER</div> <div></div>	<div>Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line</div> <div>HIGH: > 50%SLGT: 10%-20%</div> <div>MDT: 20%-50%MRGL: 5%-10%</div>			<div></div>



Flood Watches

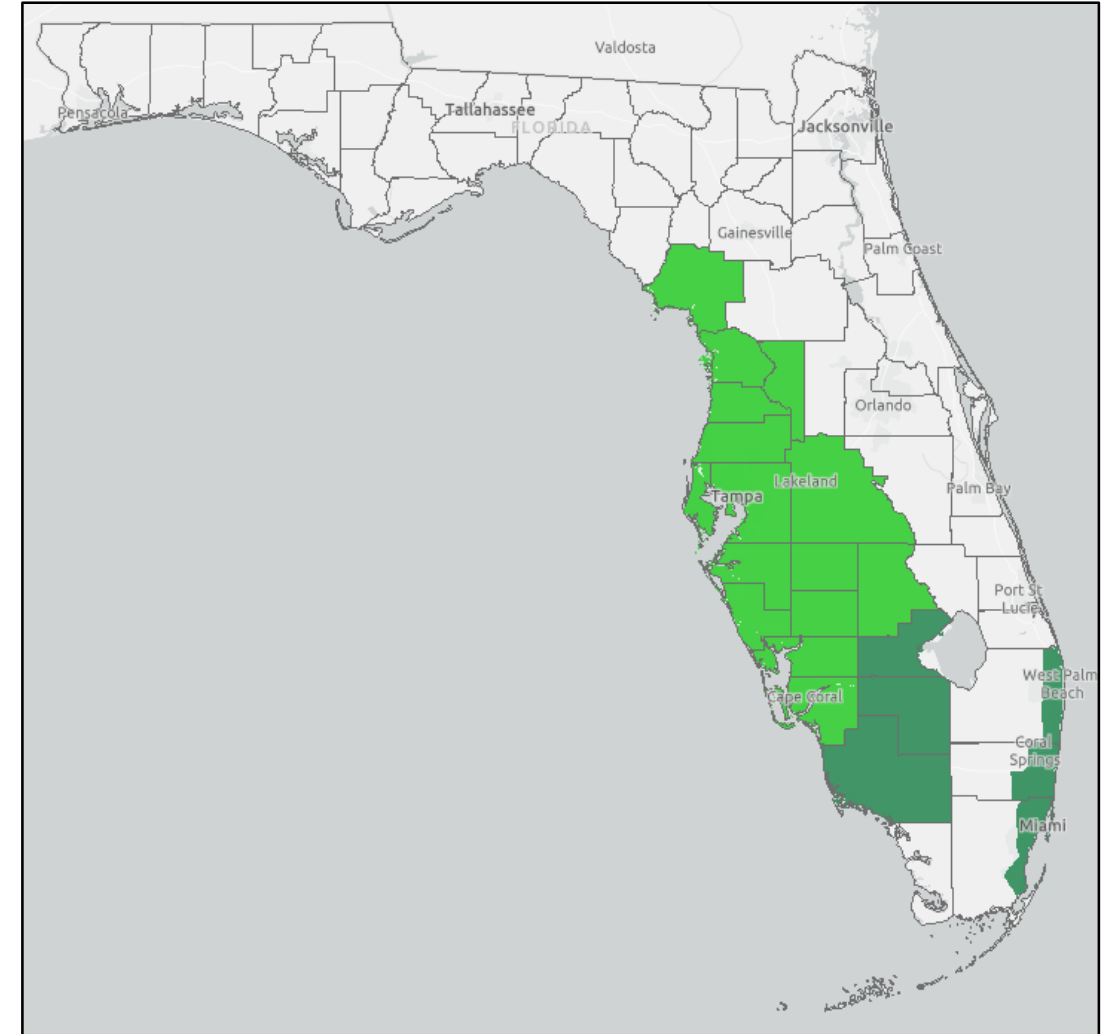
Links: [NWS Miami](#) | [NWS Tampa Bay](#)

Flash Flood Watch until Friday afternoon:

Levy, Citrus, Hernando, Pasco, Sumter,
Pinellas, Hillsborough, Polk, Manatee,
Sarasota, Hardee, DeSoto, Highlands,
Charlotte, Lee

Flood Watch until this evening:

Glades, Hendry, Collier, coastal Palm
Beach, coastal Broward, coastal Miami-
Dade





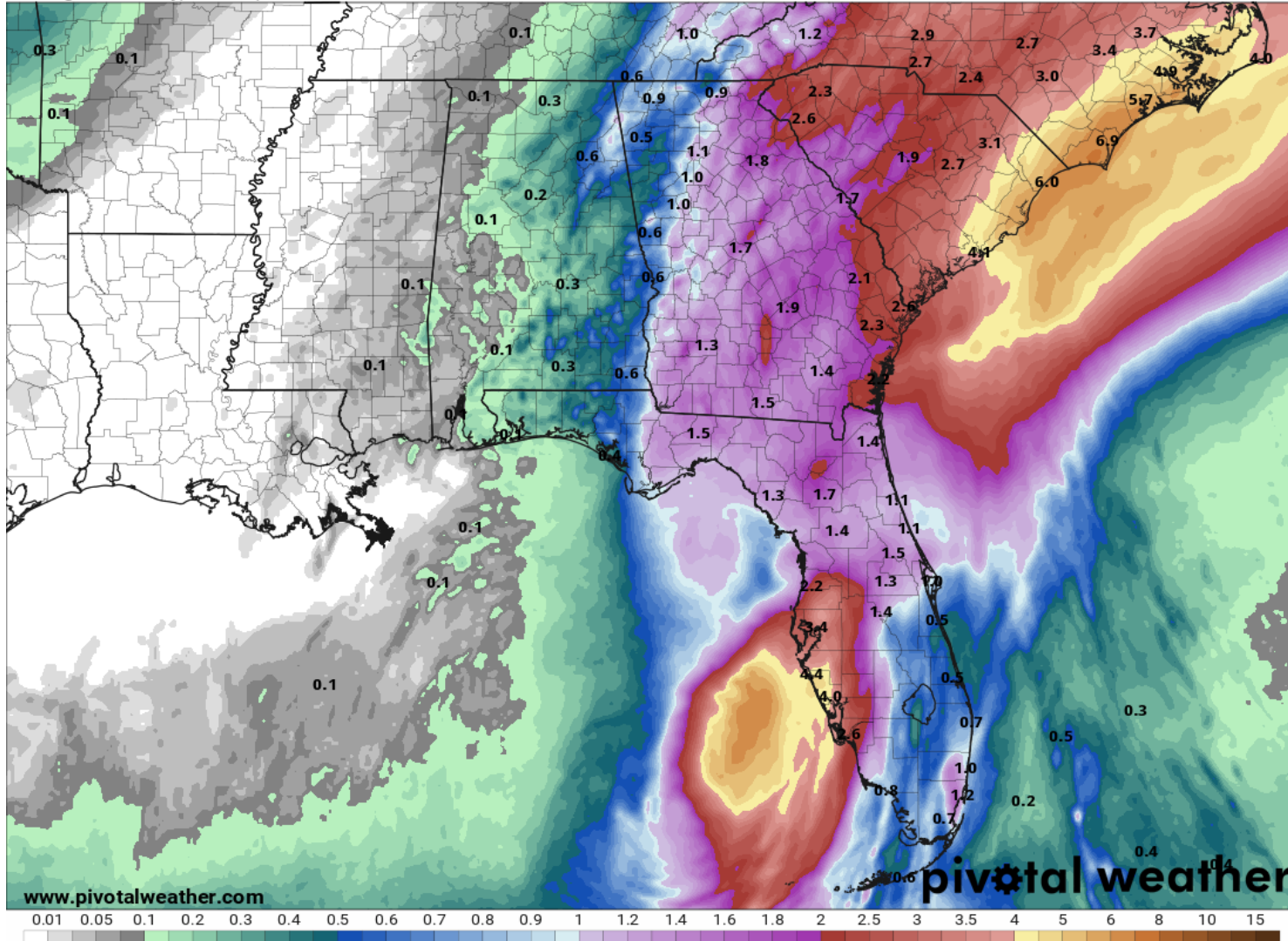
Rainfall Totals Next 7 Days

Ending 7 AM ET Tuesday

7-Day Precipitation (in)

Ending Wednesday, Nov. 18, 2020 at 7 a.m. EST

Init: Wed 2020-11-11 12z WPC



Rainfall totals will generally be around 1-2" across the Peninsula through Wednesday morning.

1-3" are possible along the West Coast Wednesday and Thursday. (*Locally higher amounts to 6" possible*)

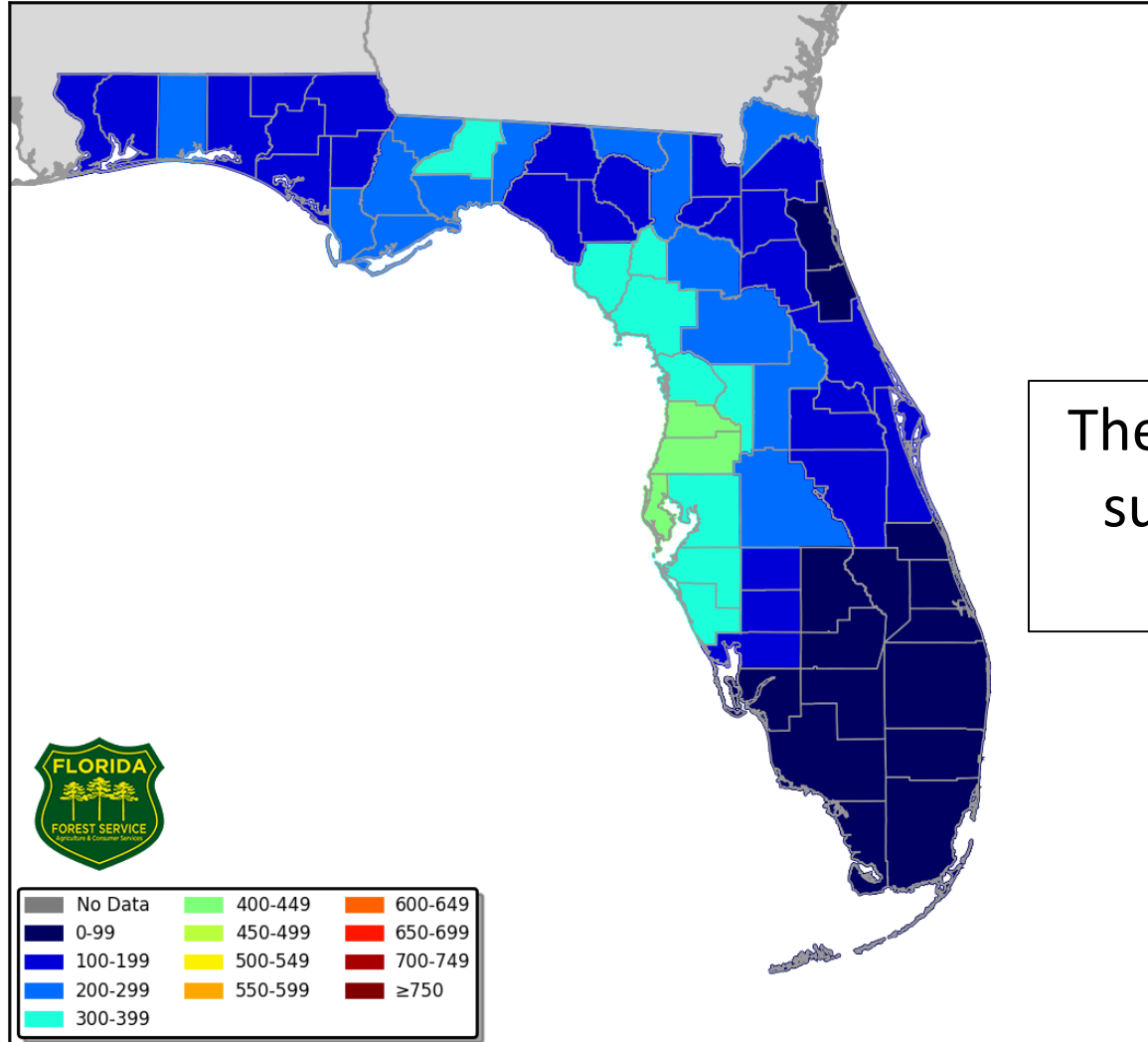
1-3" are forecast in North Florida on Thursday from Eta and an approaching cold front.



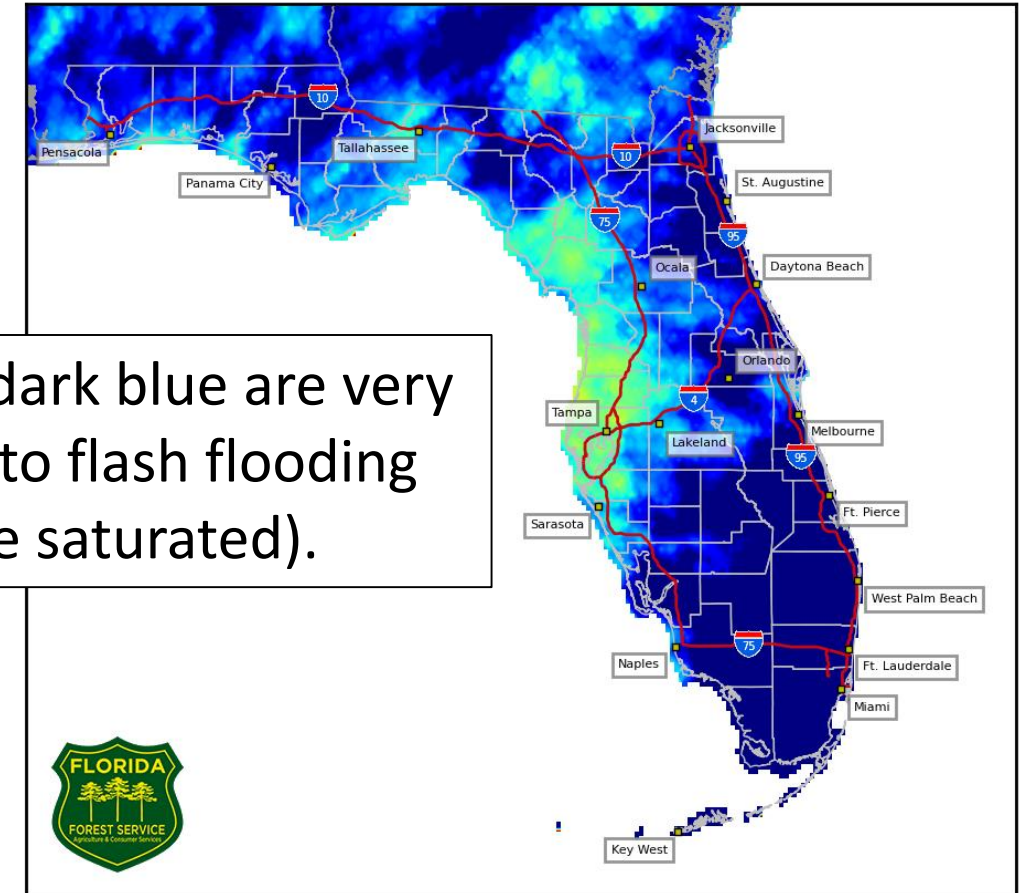
Drought Index – Soil Moisture

KBDI – Full Report from the FFS

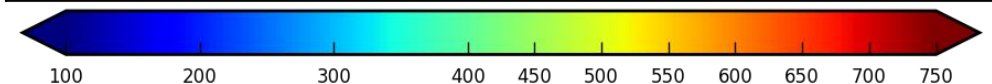
Keetch Byram Drought Index (KBDI)
County Averages for November 10, 2020



4 km Resolution KBDI
Statewide
November 10, 2020



The areas in dark blue are very susceptible to flash flooding (soils are saturated).

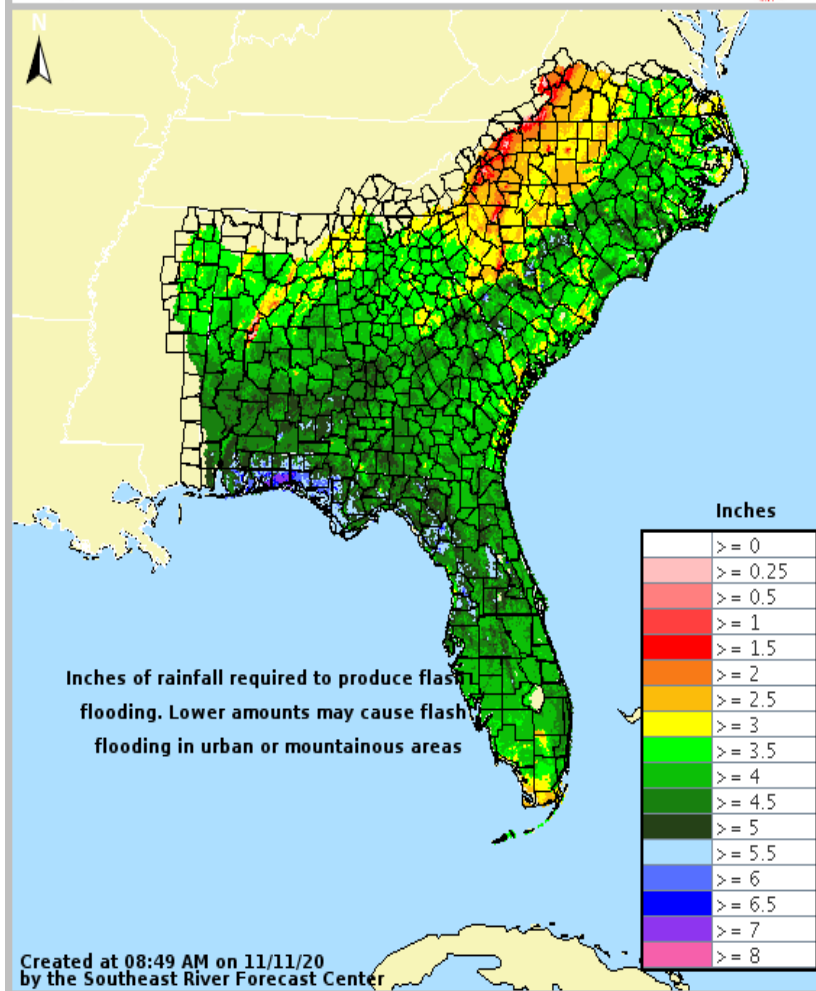
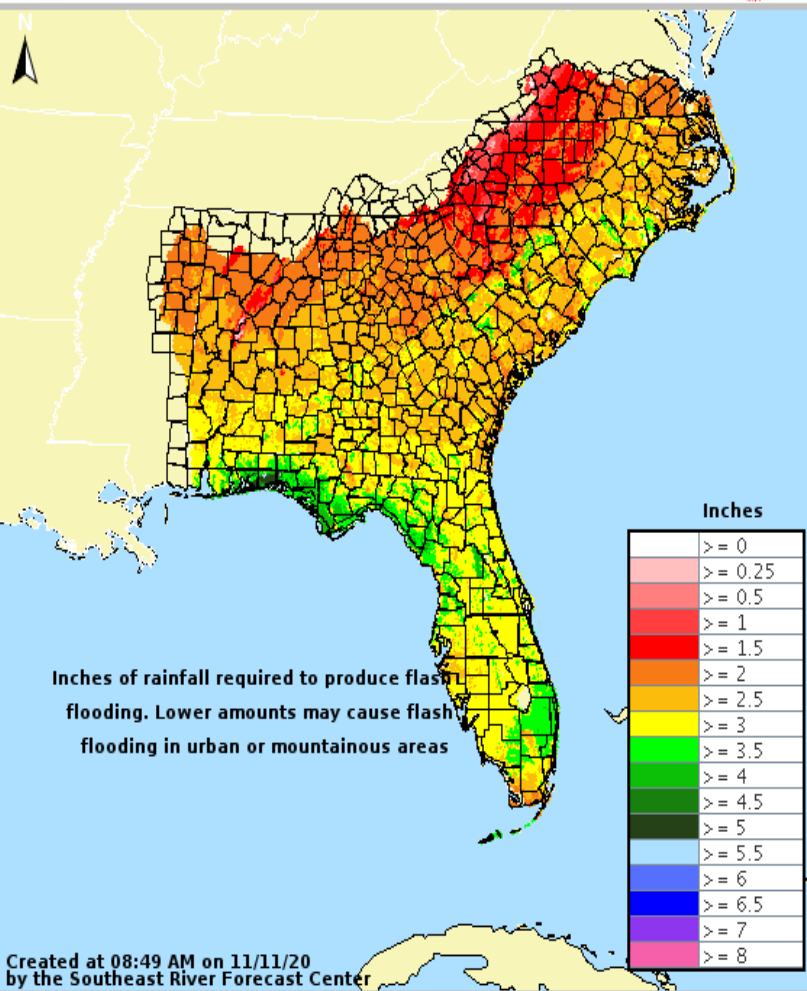


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Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?



South Florida remains very wet from rainfall over the last several months. This area remains very prone to flooding.

It will only take about 1-2" of rain in an hour in parts of Broward, Miami-Dade, and Monroe Counties to create flash flooding.

Along the West Coast, it will take about 3-4" of rain in 1 hour or 5-6" in 6 hours to cause flash flooding.

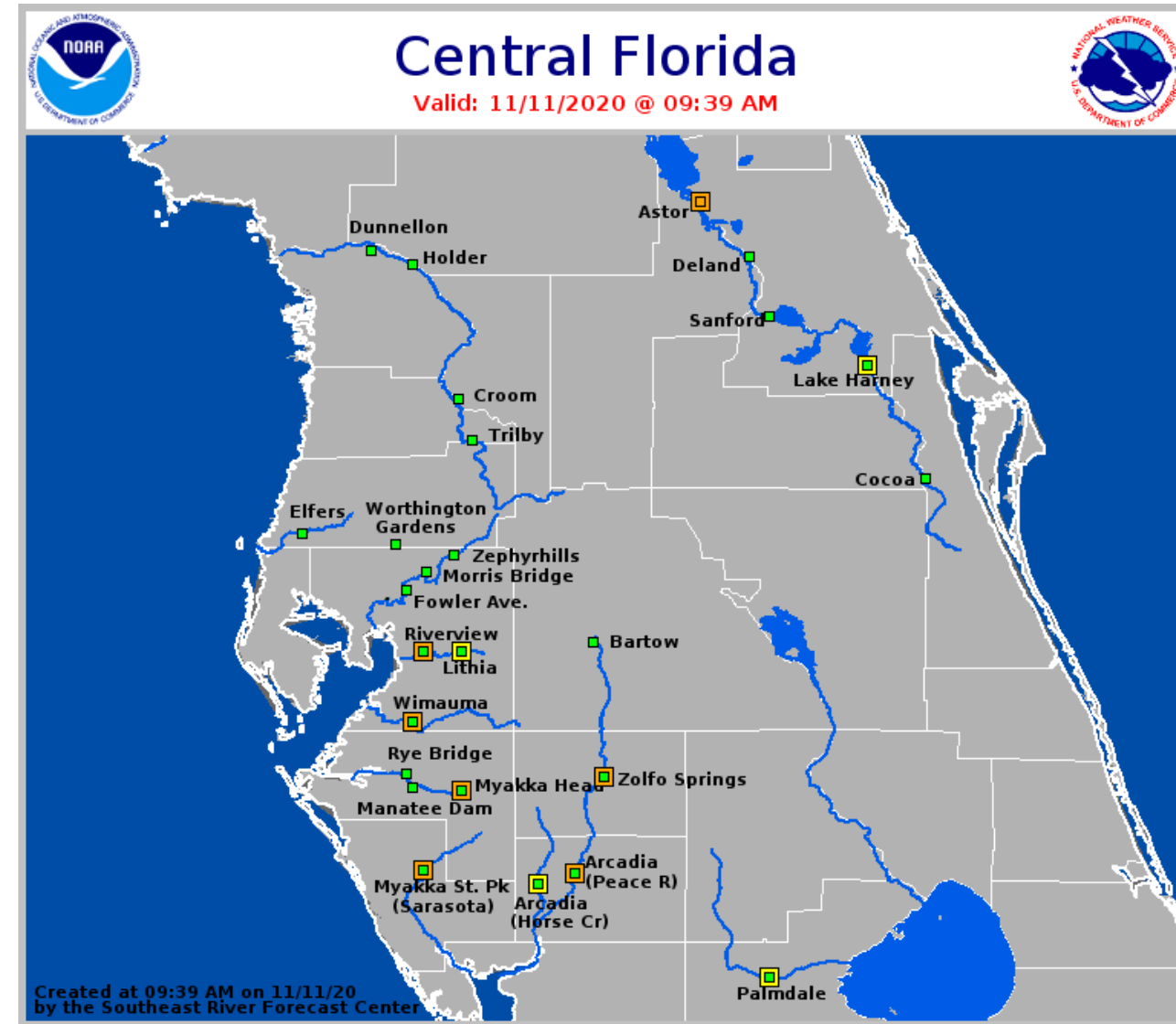


Current & Forecast River Flooding

Central Florida – Southeast River Forecast Center

- Several Central Florida rivers are forecast to rise into minor flood stage over the next several days.

More details on river levels available at the [Southeast River Forecast Center website](https://www.srfc.com).





Storm Surge Threat Overview

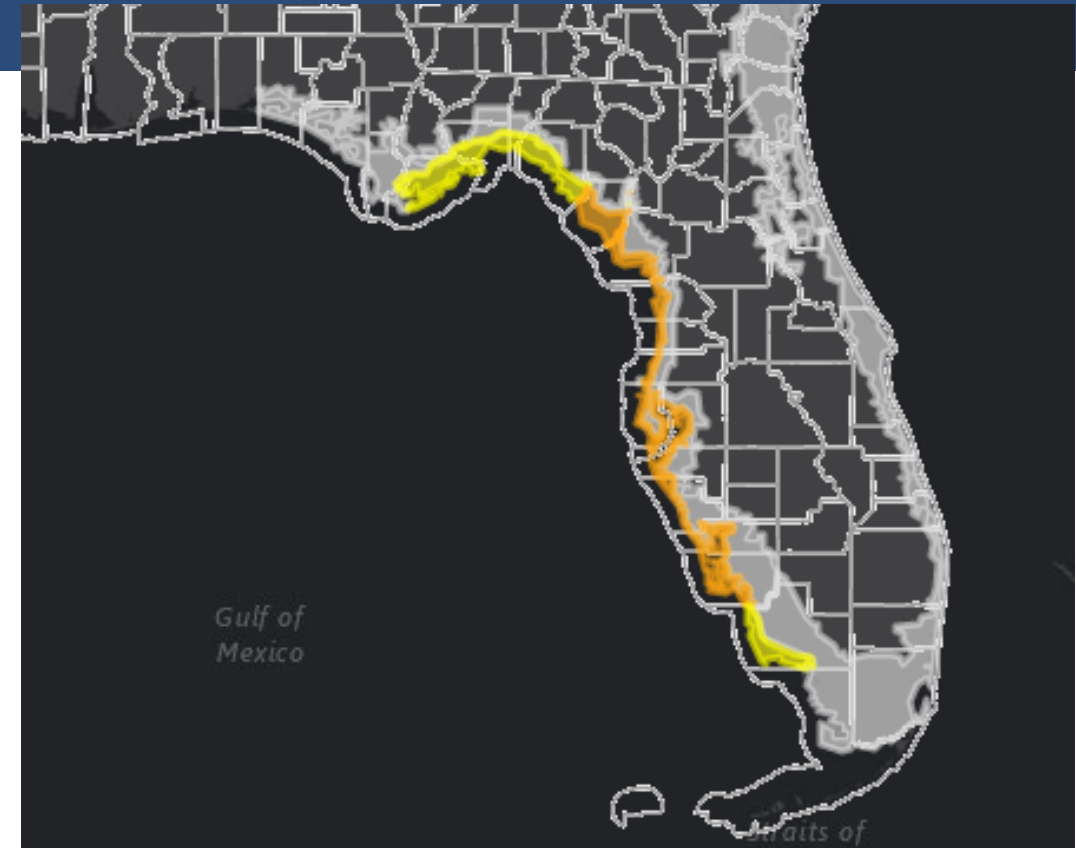
Hurricane Eta

The storm surge threat from the new track is still being evaluated.

1-3' of surge seems likely along the West Coast over multiple high tide cycles Wednesday and Thursday.

<https://www.weather.gov/srh/tropical?office=tbw>

Click on “Threats and Impacts” Tab



[\[Download KML\]](#)

[\[Download Image\]](#)

Storm Surge Threat

Potential for storm surge flooding greater than 9 ft above ground

Potential for storm surge flooding greater than 6 ft above ground

Potential for storm surge flooding greater than 3 ft above ground

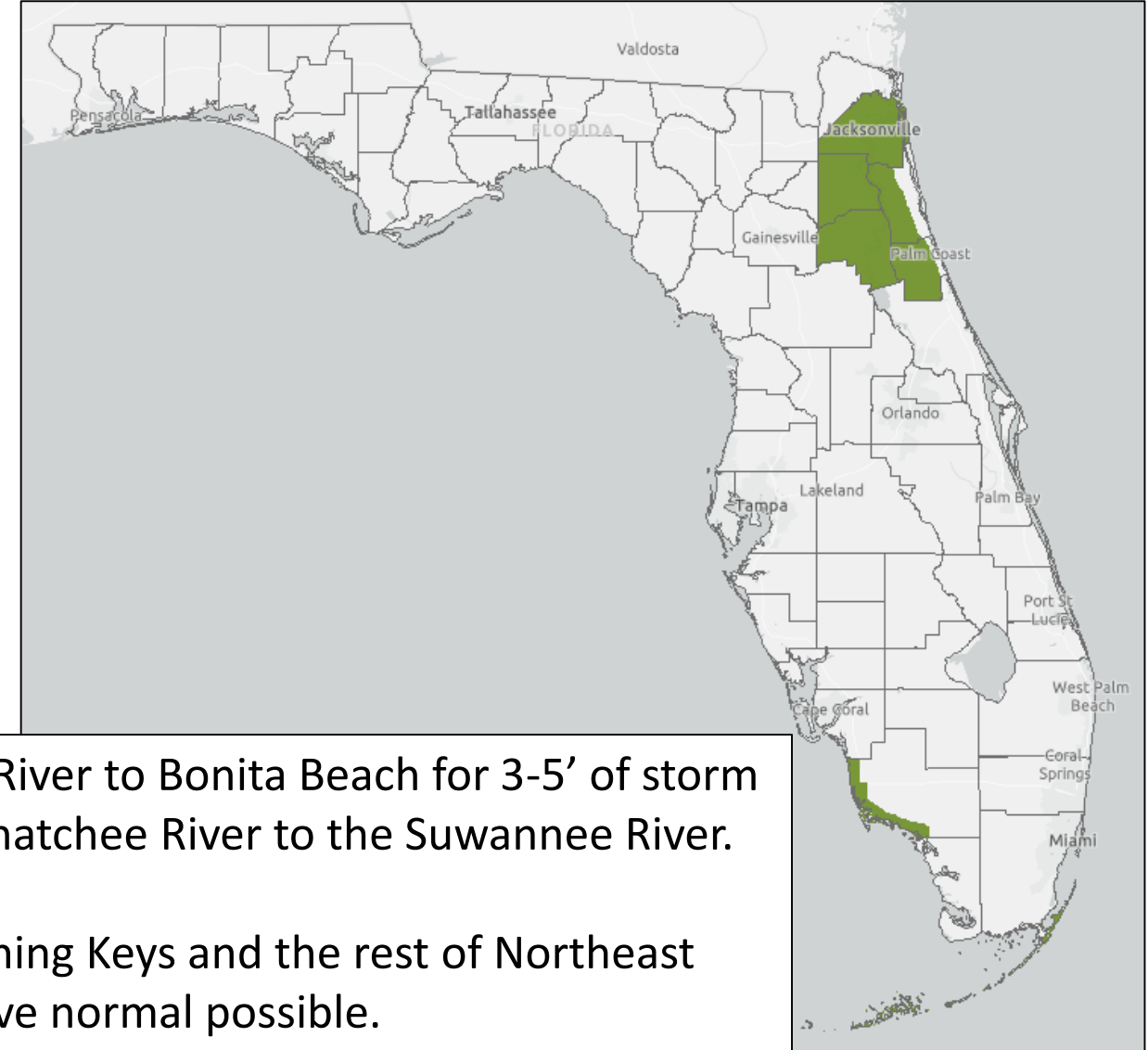
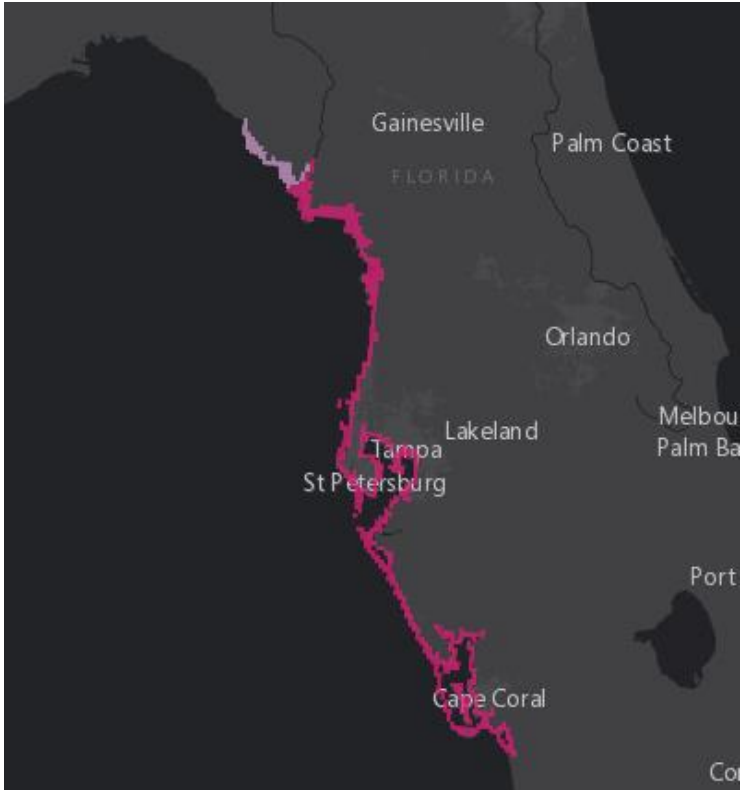
Potential for storm surge flooding greater than 1 ft above ground

Little to no storm surge flooding



Coastal Flood/Storm Surge Alerts

Hurricane Eta



Storm Surge Warnings are in effect from the Suwannee River to Bonita Beach for 3-5' of storm surge. **Storm Surge Watches** are in effect from the Steinhatchee River to the Suwannee River.

Coastal Flood Statements remain in effect for the remaining Keys and the rest of Northeast Florida including the St. Johns River. Tides around 1' above normal possible.

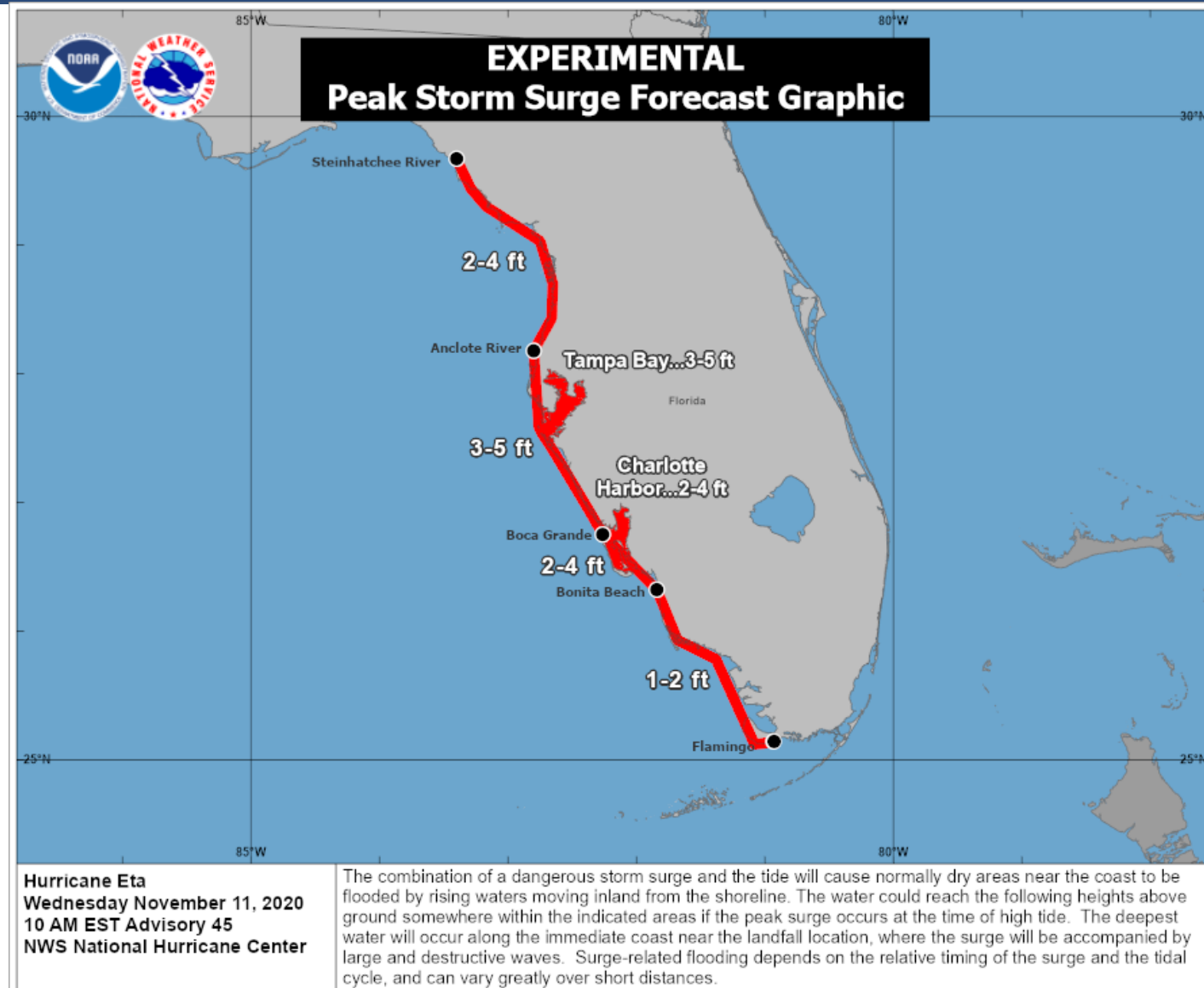


Storm Surge/Coastal Flooding

Hurricane Eta

The highest storm surge will be from the Anclote River to Boca Grande, including Tampa Bay, where 3-5' of storm surge is possible.

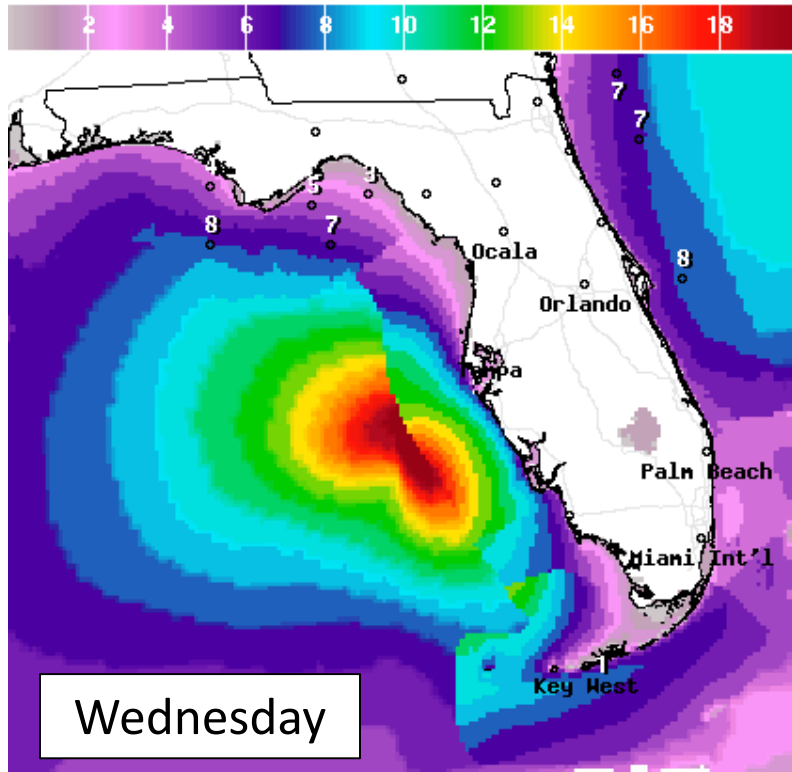
2-4' of storm surge is possible from the Steinhatchee River to Bonita Beach, including Charlotte Harbor. 1-2' of storm surge is possible across far Southwest Florida.





Forecast Wave Heights

Through Late Week



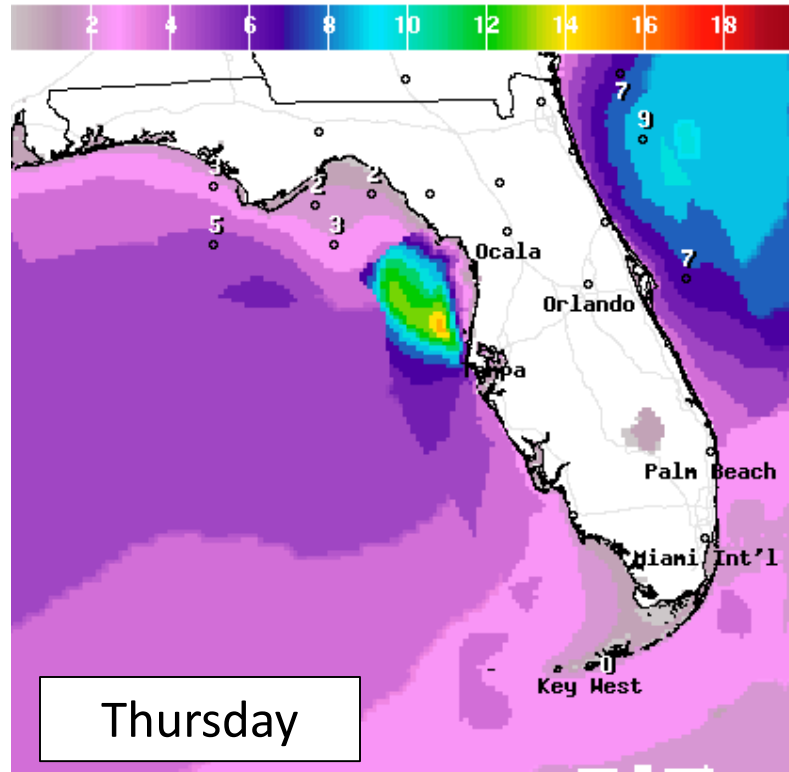
Wednesday

Wave Height(ft) Ending Wed Nov 11 2020 7PM EST
(Thu Nov 12 2020 00Z)



National Digital Forecast Database

14z issuance Graphic created-Nov 11 9:26AM EST



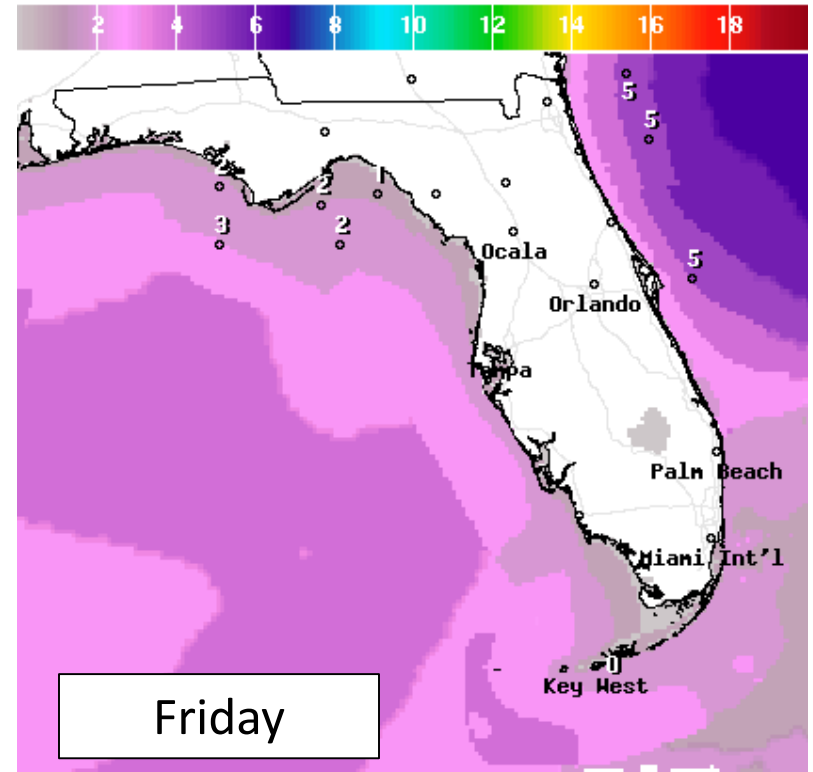
Thursday

Wave Height(ft) Ending Thu Nov 12 2020 7PM EST
(Fri Nov 13 2020 00Z)



National Digital Forecast Database

14z issuance Graphic created-Nov 11 9:27AM EST



Friday

Wave Height(ft) Ending Fri Nov 13 2020 7PM EST
(Sat Nov 14 2020 00Z)



National Digital Forecast Database

14z issuance Graphic created-Nov 11 9:28AM EST

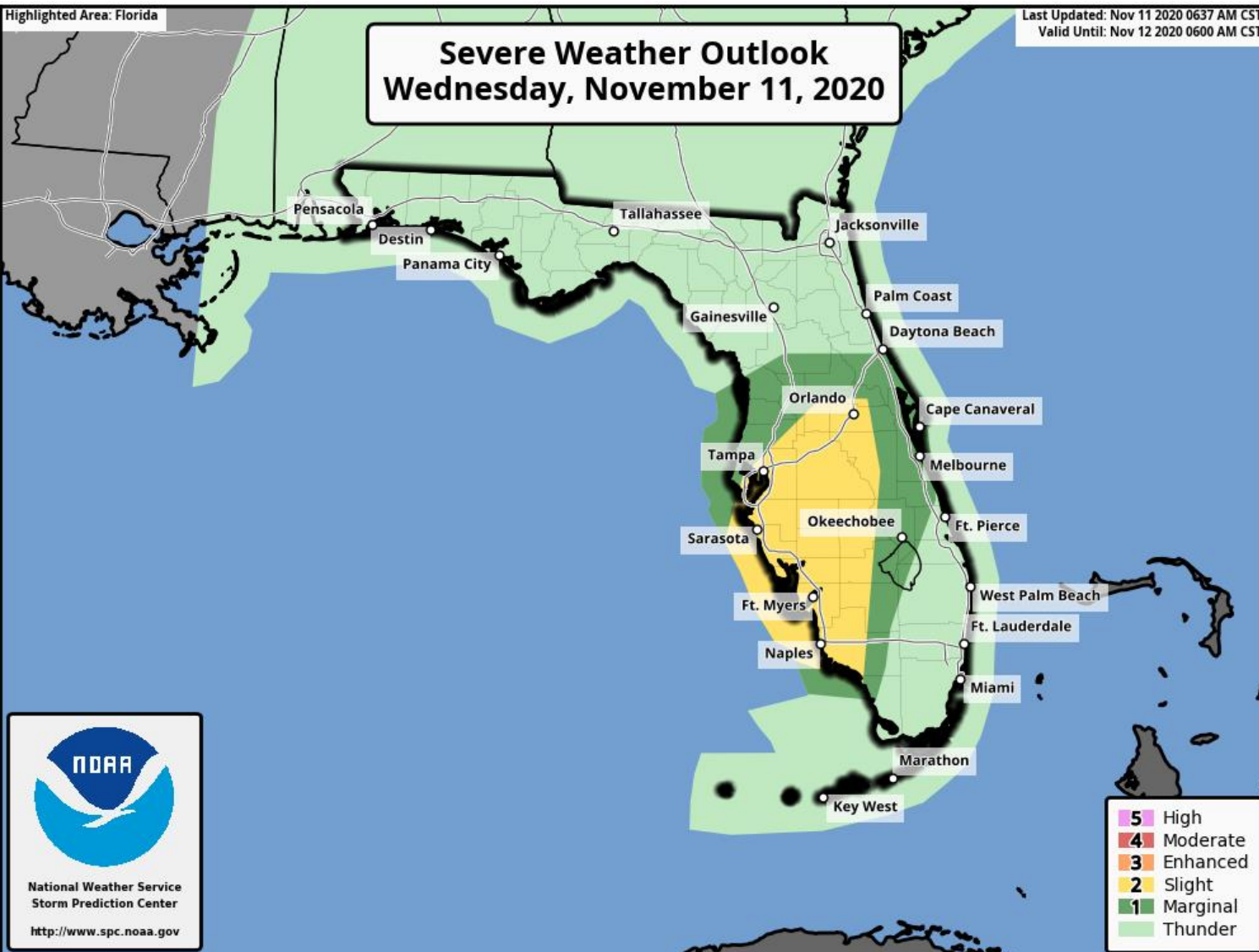


Surf will build through today along the West Coast and will subside Thursday into Friday as Eta moves across Northeast Florida into the Atlantic. Significant beach erosion and possible dune overwash may occur along the West Coast. Swells will remain into late week, which could result in dangerous rip currents for several days.



Severe Weather Outlook Today

From the Storm Prediction Center




Isolated tornadoes will be possible across Central and Southwest Florida in some of the outer bands. There is a **Marginal to Slight Risk** (level 1 of 5) of Severe Weather.



Severe Thunderstorm Risk Categories

Understanding the Storm Prediction Center Risk Scale

Understanding Severe Thunderstorm Risk Categories

THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with <u>all</u> thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
					

* NWS defines a severe thunderstorm as measured wind gusts to at least 58 mph, and/or hail to at least one inch in diameter, and/or a tornado. All thunderstorm categories imply lightning and the potential for flooding. Categories are also tied to the probability of a severe weather event within 25 miles of your location.



National Weather Service

www.spc.noaa.gov



**Thunderstorms
(no label)** No severe* thunderstorms expected
Lightning/flooding threat exists with all thunderstorms
Winds to 40 mph and small hail possible



**1 Marginal Risk
(MRGL)** *Isolated severe thunderstorms possible*
Limited in duration and/or coverage and/or intensity
Wind to 40-60 mph, hail up to 1", and low tornado risk



**2 Slight Risk
(SLGT)** *Scattered severe storms possible*
Short-lived and/or not widespread, isolated
intense storms
One or two tornadoes
Reports of strong winds and wind damage
Hail ~1", isolated 2"



**3 Enhanced Risk
(ENH)** *Numerous severe storms possible*
More persistent and/or widespread, a few intense
A few tornadoes
Several wind damage reports
Damaging hail, 1"-2"



**4 Moderate Risk
(MDT)** *Widespread severe storms likely*
Long-lived, widespread and intense
Strong tornadoes
Widespread wind damage
Destructive hail, 2" or greater



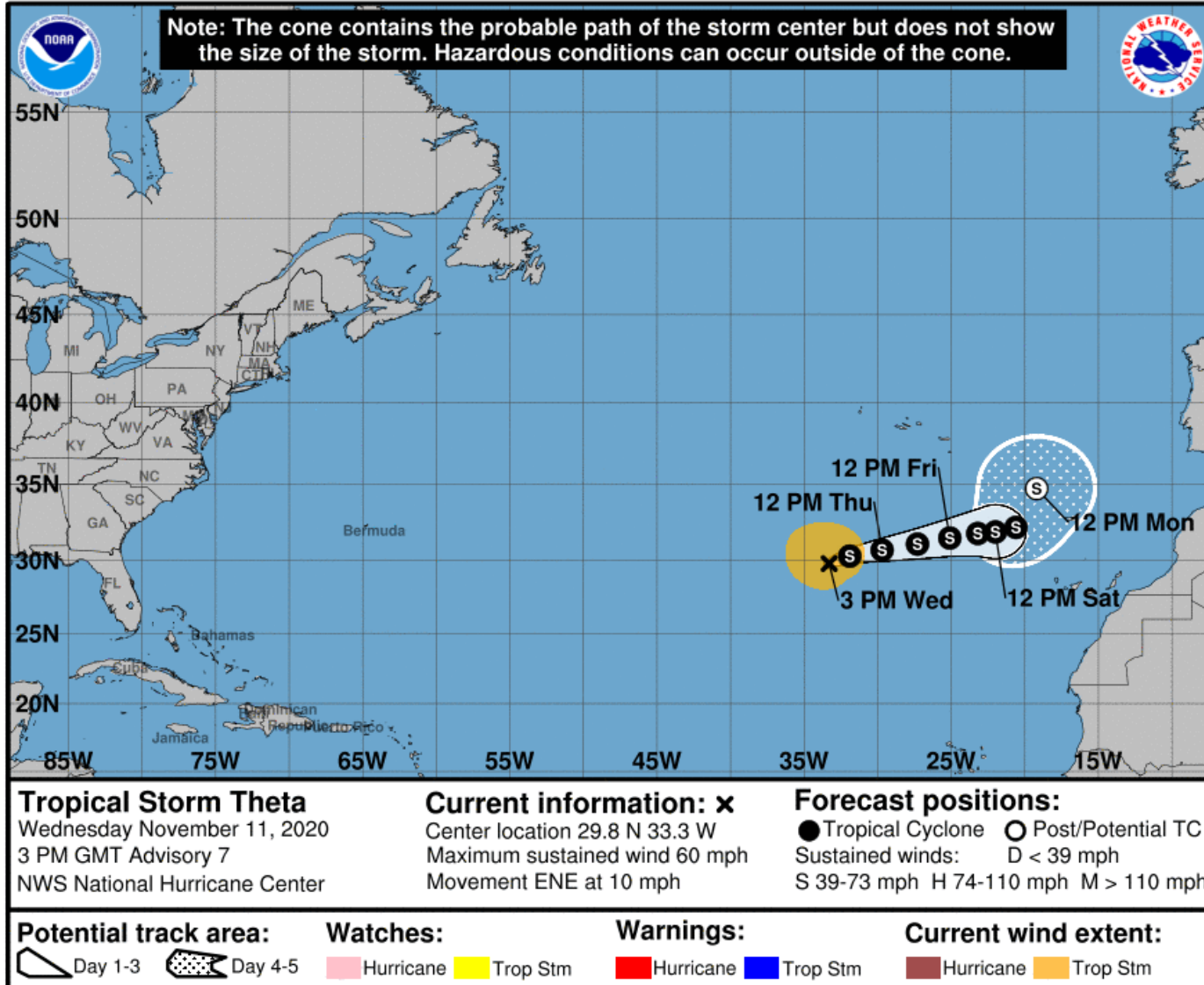
**5 High Risk
(HIGH)** *Widespread severe storms expected*
Long-lived, very widespread and particularly intense
Tornado outbreak
Derecho





Forecast Track

Tropical Storm Theta



Theta is weakening slightly from yesterday's peak at 70 mph. This system poses no threat to land as it continues eastward over the open northeast Atlantic.



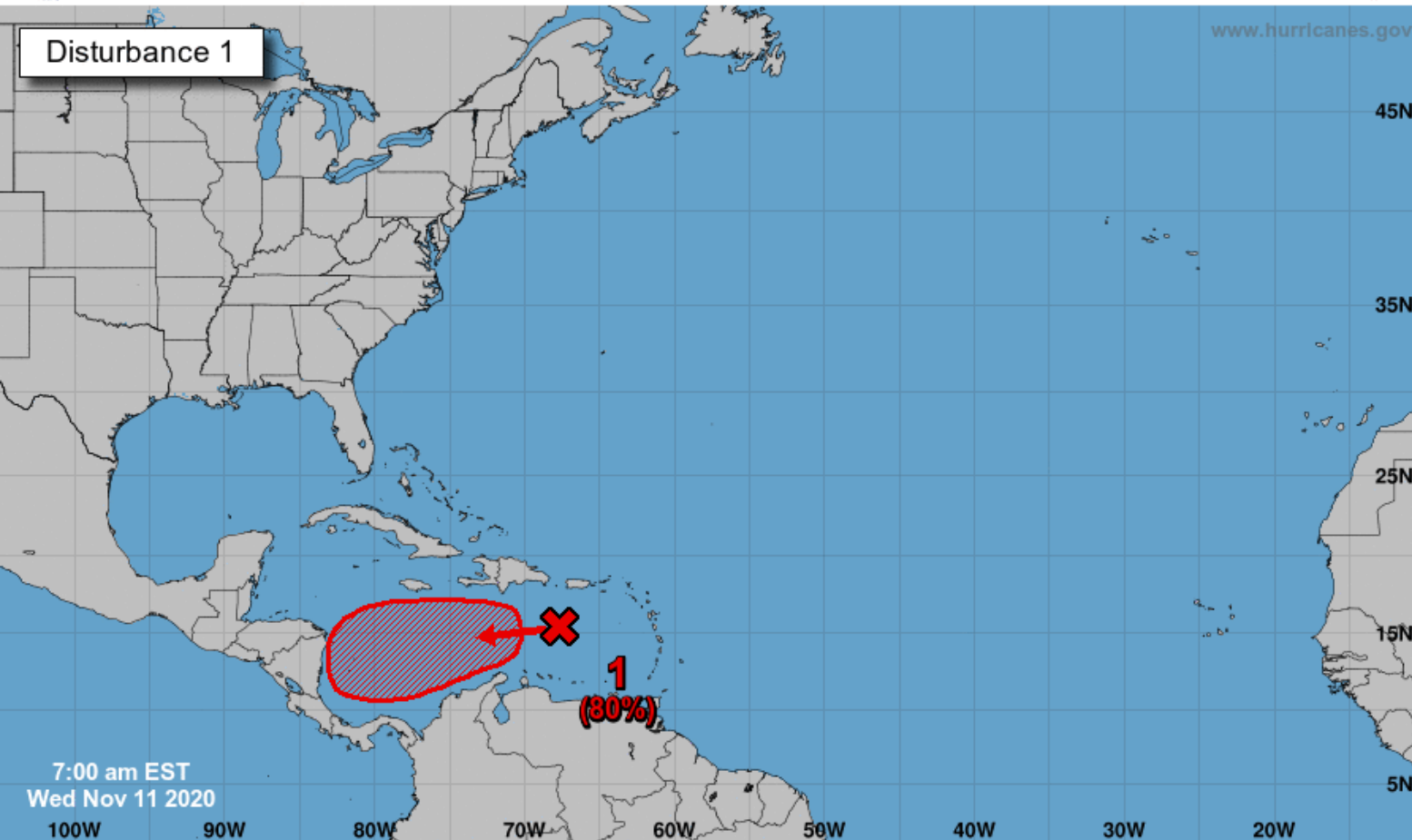
Tropical Weather Outlook

Possible Areas of Development During the Next 5 Days ([LINK](#))



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



A tropical wave located over the eastern Caribbean Sea is producing a large area of disorganized showers and thunderstorms. The wave is expected to move slowly westward into more conducive environmental conditions over the next several days, and a tropical depression is likely to form late this week or this weekend when the disturbance reaches the central or western Caribbean Sea.

This system is not expected to bring impacts to Florida over the next 7 days, if at all.

***Formation chance through 48 hrs...low...20%.**

***Formation chance through 5 days...high...80%.**

Current Disturbances and Five-Day Cyclone Formation Chance:

✖ < 40%

✖ 40-60%

✖ > 60%

Tropical or Sub-Tropical Cyclone: ○ Depression ○ Storm ○ Hurricane

⊗ Post-Tropical Cyclone or Remnants



Overall Summary

Hurricane Eta

- The center of Tropical Storm Eta is about 115 miles west-southwest of Port Charlotte, moving north-northeast at 10 mph.
- Maximum sustained winds are near 75 mph, and gradual weakening is forecast until landfall Thursday morning. However, Eta could still be near hurricane strength at landfall.
- Eta will continue moving north-northeastward toward the Nature Coast and will turn northeastward over the northern Peninsula on Thursday.
- Significant eastward shift since yesterday

Tropical Storm Theta (formerly Invest 97L)

- Theta poses no threat to land as it moves over the open Atlantic.

Caribbean Wave

- A tropical wave located over the eastern Caribbean Sea is producing disorganized showers and thunderstorms.
- The wave is expected to move westward into more conducive environmental conditions over the next several days, and a tropical depression is likely to form late this week or this weekend when the wave reaches the central/western Caribbean Sea.
- This system has a 20% (low) chance of formation during the next 48 hours but a 80% (high) chance during the next 5 days.
- This system is not expected to bring impacts to Florida over the next 7 days, if at all.
- The next name on the list is Iota (eye-o-tah)



Florida Outlook

Florida Outlook:

- Storm Surge Warnings: Levy, Citrus, Hernando, Pasco, Pinellas, Hillsborough, Manatee, Sarasota, Charlotte, Lee
- Hurricane Watches: coastal Levy, coastal Citrus, coastal Hernando, coastal Pasco, coastal Hillsborough, coastal Manatee
- Tropical Storm Warnings: Gilchrist, Alachua, Levy, Marion, Citrus, Hernando, Pasco, Sumter, Lake, Pinellas, Hillsborough, Polk, Manatee, Sarasota, coastal Charlotte, coastal Lee
- Tropical Storm Watches: coastal Taylor, coastal Dixie, Bradford, Clay, Putnam, St. Johns, Flagler, Volusia
- Flood/Flash Flood Watches: Levy, Citrus, Hernando, Pasco, Sumter, Pinellas, Hillsborough, Polk, Manatee, Sarasota, Hardee, DeSoto, Highlands, Charlotte, Lee, Glades, Hendry, Collier, coastal Palm Beach, coastal Broward, and coastal Miami-Dade

-
- Tropical-storm-force winds are ongoing across coastal parts of Southwest Florida as rain bands move onshore.
 - Tropical-storm-force winds will spread northward along the West Coast into this evening and tonight, and hurricane-force winds will also be possible along the Nature Coast tonight.
 - Sustained winds of 45-60 mph will be possible across much of the West Coast (west of I-75) with gusts of 60-70 mph. Gusts to near hurricane force are possible in the Hurricane Watch area.
 - Heavy rainfall is possible across much of Central and South Florida where 2-6" of rainfall is expected.
 - Storm surge of 3-5' is expected from Anclote River to Boca Grande with 2-4' elsewhere along the West Coast.
 - Isolated tornadoes are also possible today across Central and Southwest Florida.

The next tropics packet will be issued this afternoon with the 4 PM ET advisory. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE



Created by:

Cameron Young, Assistant State Meteorologist

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State Meteorological Support Unit

Florida Division of Emergency Management

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