



TROPICAL UPDATE



4:00 PM EST

Thursday, November 5, 2020

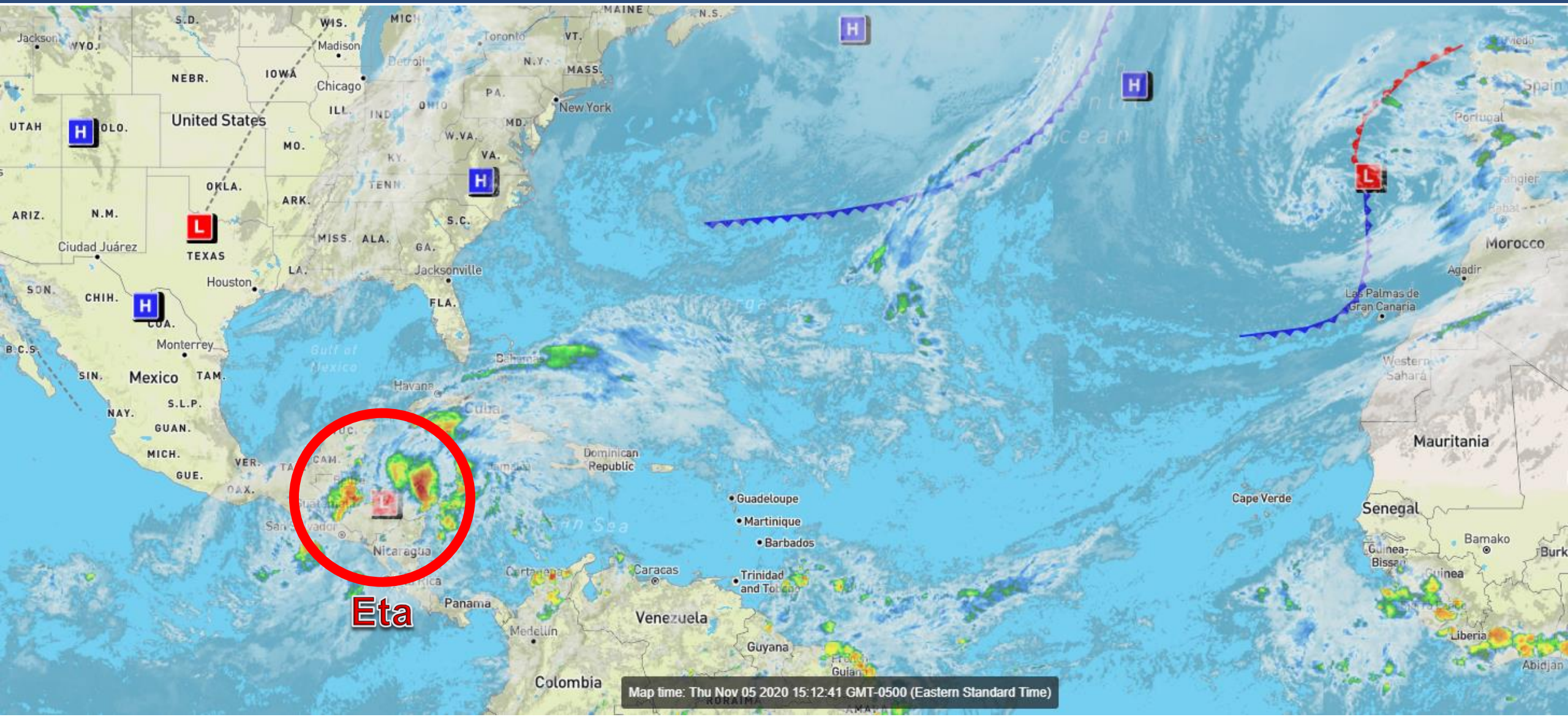
Tropical Depression Eta

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



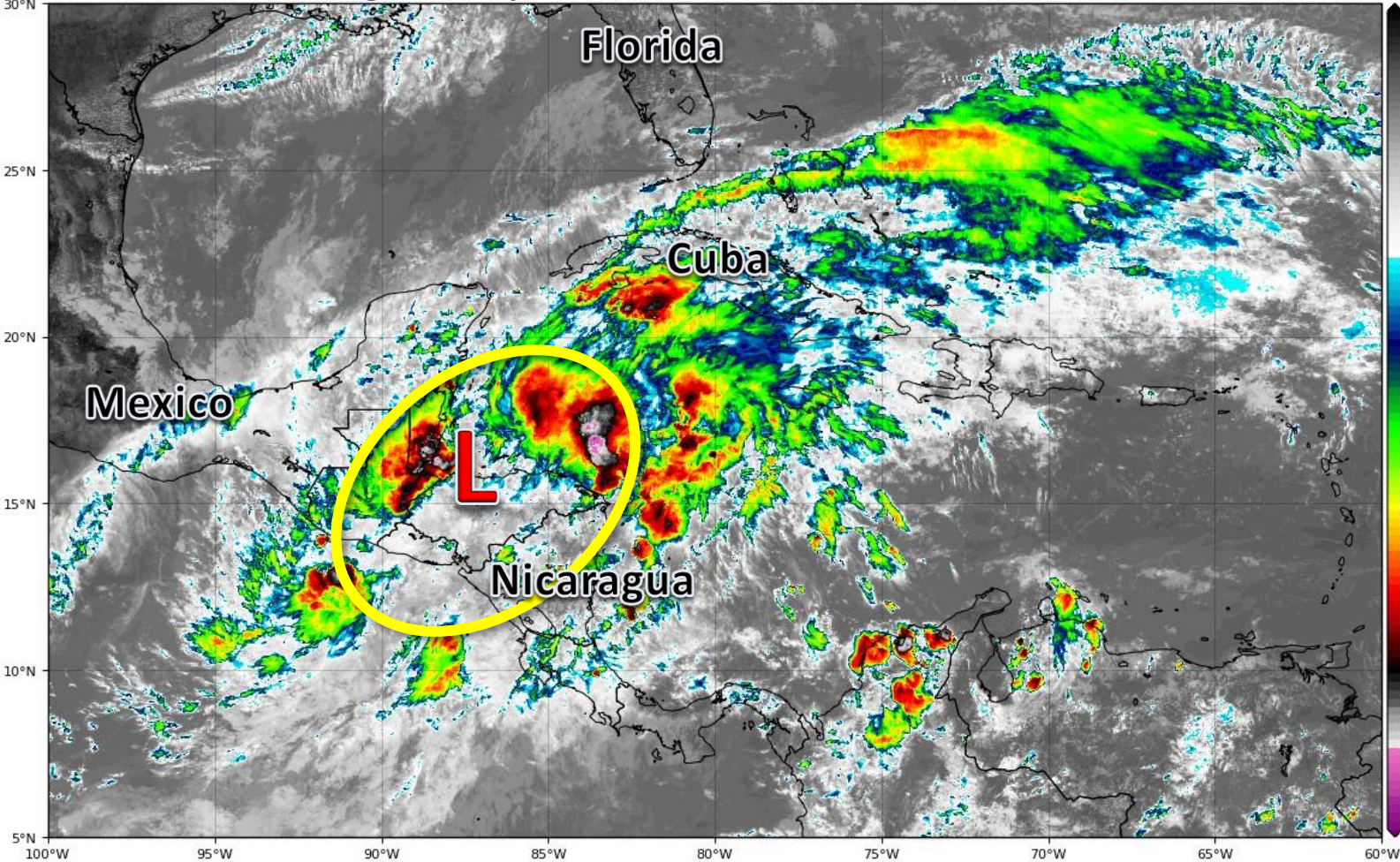


Satellite Imagery

Tropical Depression Eta – Central America

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 19:15Z Nov 05, 2020

TROPICALTIDBITS.COM

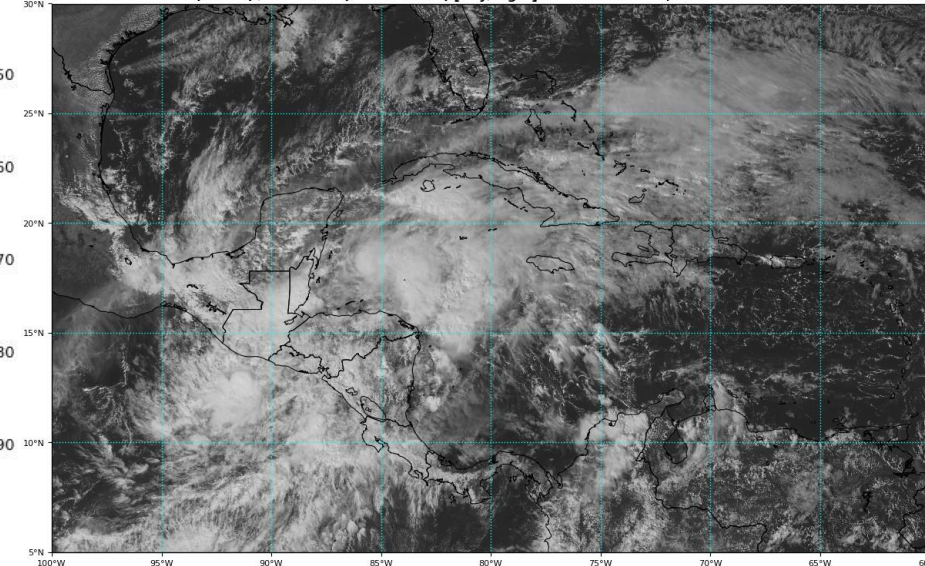


It appears that the area of low pressure associated with TD Eta is near the Honduran coast and embedded within a broader circulation. This is a rather sloppy system with most of the thunderstorms now over the Caribbean, displaced from what is left of the center.

This still remains a fairly uncertain situation.

GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 19:45Z Nov 05, 2020

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Official Forecast Track

From the National Hurricane Center – Tropical Depression Eta



- The center of Eta is located about 60 miles west of La Ceiba, Honduras, moving north-northwest at 8 mph.
- Maximum sustained winds are near 35 mph, and Eta is forecast to become a tropical storm over the Caribbean on Friday.
- Eta will emerge into the Gulf of Honduras tonight, approach the Cayman Islands and Cuba this weekend, then be over the Florida Straits by Monday.
- Slow, steady intensification is forecast once it moves over the Caribbean Sea.
- Once the storm is near the Florida Keys or over the Florida Keys, Eta may turn more westward into the eastern Gulf of Mexico.
- **It's important to not focus too much on the cone as impacts will extend well outside of the cone.**



Key Messages

From the National Hurricane Center



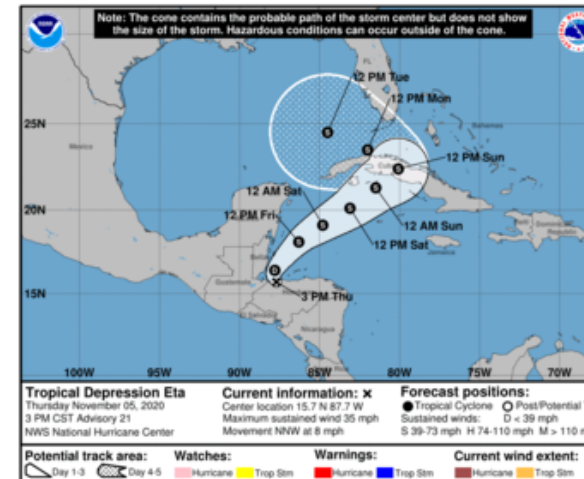
Key Messages for Tropical Depression Eta

Advisory 21: 3:00 PM CST Thu Nov 05, 2020



1. Through Monday morning, heavy rainfall from Eta will lead to catastrophic, life-threatening flash flooding and river flooding across portions of Central America, along with landslides in areas of higher terrain. Flash and river flooding is also possible across Jamaica, southeast Mexico, the Cayman Islands and western Cuba.

2. Eta is forecast to regain tropical storm strength over the northwestern Caribbean Sea in a day or so. Although the details of the future track and intensity of Eta are uncertain, there is an increasing risk of impacts from wind and rainfall in portions of the Cayman Islands, Cuba, southern Florida and the Florida Keys this weekend and early next week.

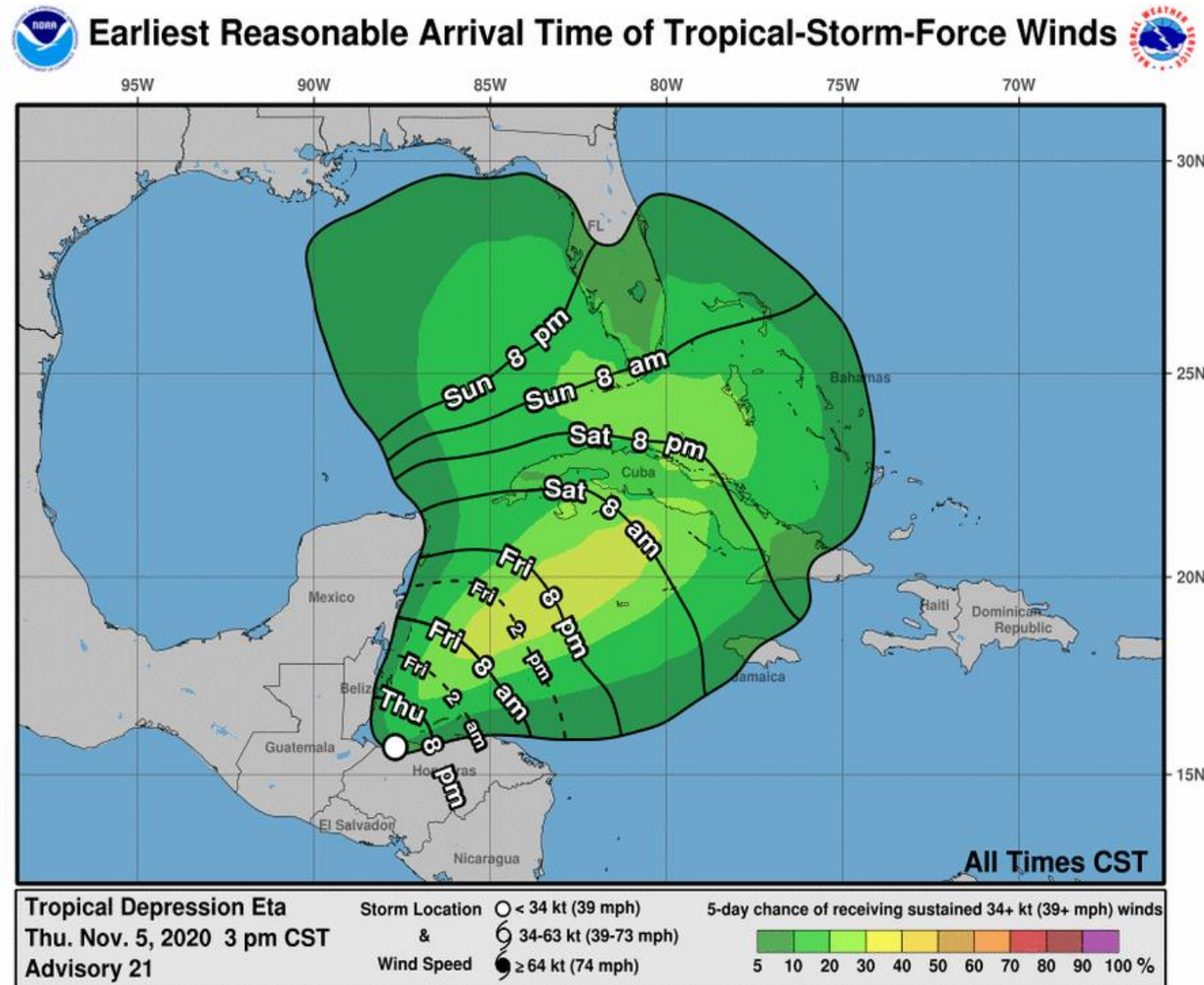


For more information go to hurricanes.gov



Time of Arrival & Wind Speed Probabilities

EARLIEST REASONABLE Time of Arrival of Tropical Storm Force Winds (>39 mph)



Key West: 30% (+4)

Marathon: 27% (+2)

Miami: 10% (-1)

Ft. Lauderdale: 15% (-3)

West Palm Beach: 11% (-4)

Naples: 19% (+1)

Ft. Myers: 8% (+/-0)

Tampa: 9% (+1)

The numbers in parenthesis show the change in probability since the last briefing packet.

Tropical storm force winds could begin as early as Sunday morning or Sunday afternoon in the Keys and South Florida, then near Lake Okeechobee Sunday night. However, it's more likely they would begin late Sunday night or Monday morning.



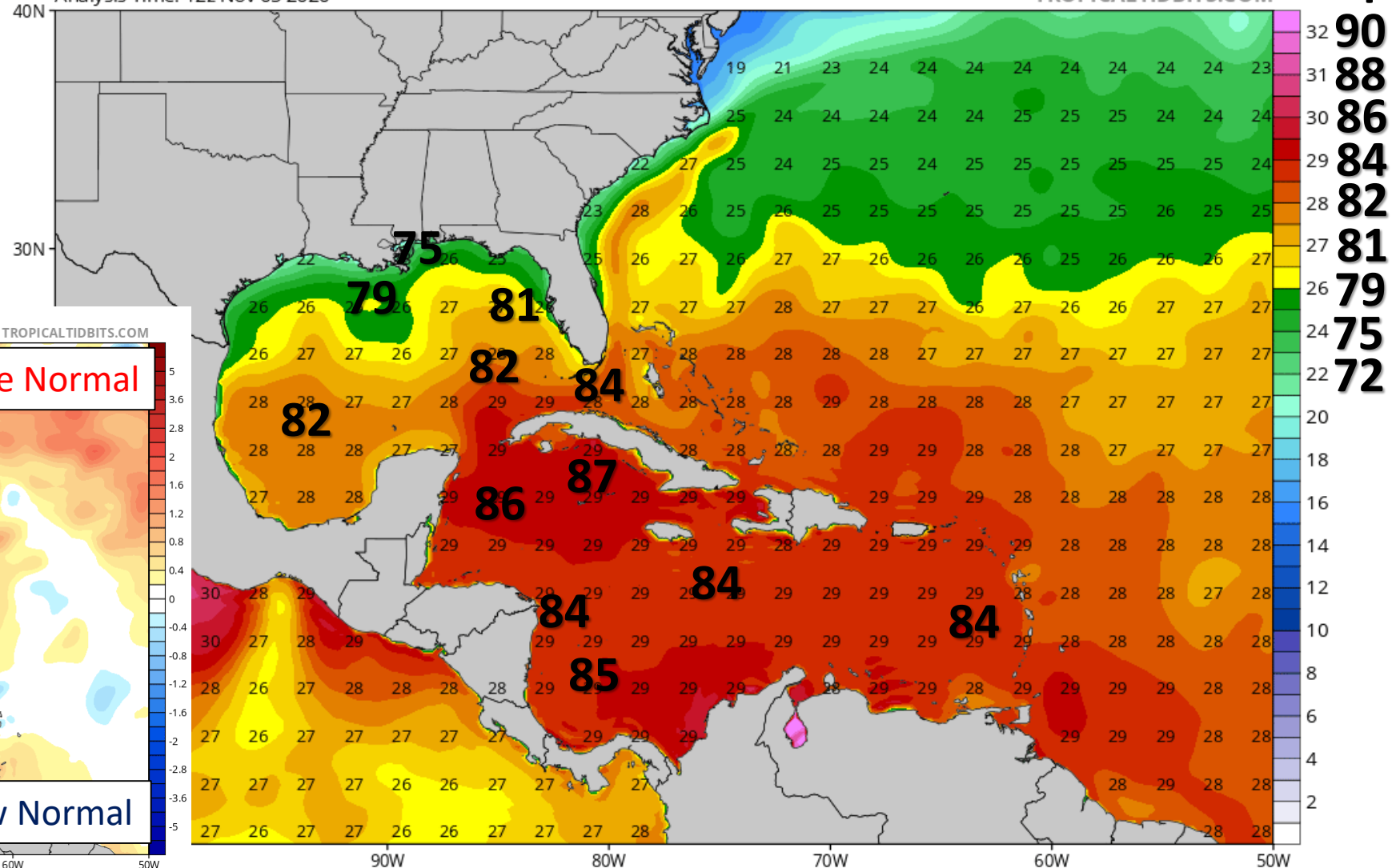
Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Temperatures across the Caribbean and near South Florida remain warm enough to support a hurricane. These temperatures are above normal for early November. Other factors, like dry air and wind shear, will determine the intensity of Eta near Florida.

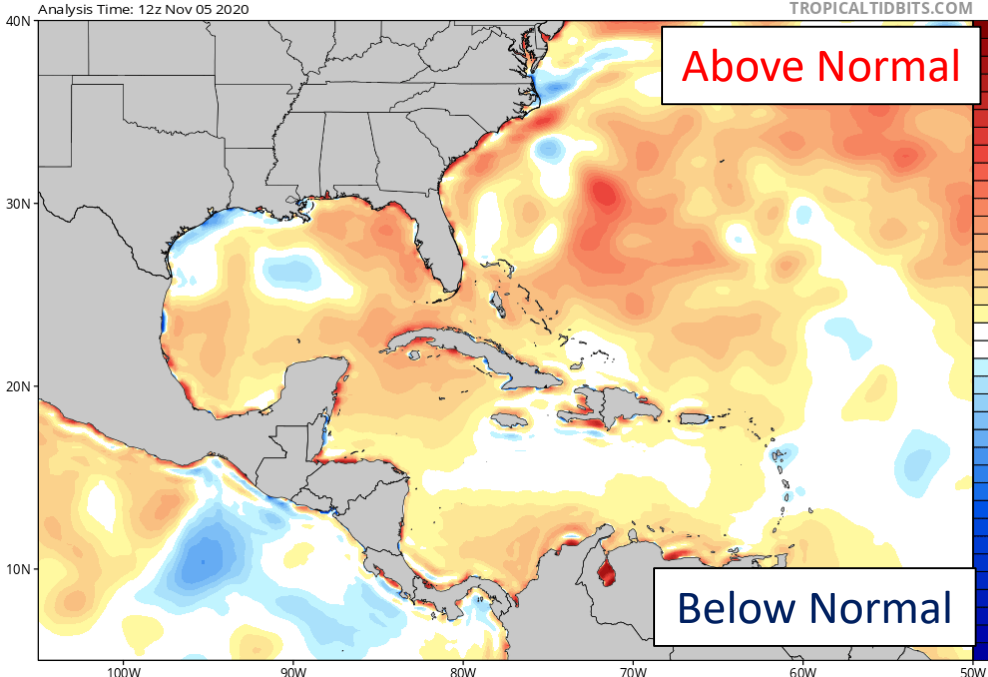
CDAS Sea Surface Temperature (°C)

Analysis Time: 12z Nov 05 2020



CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

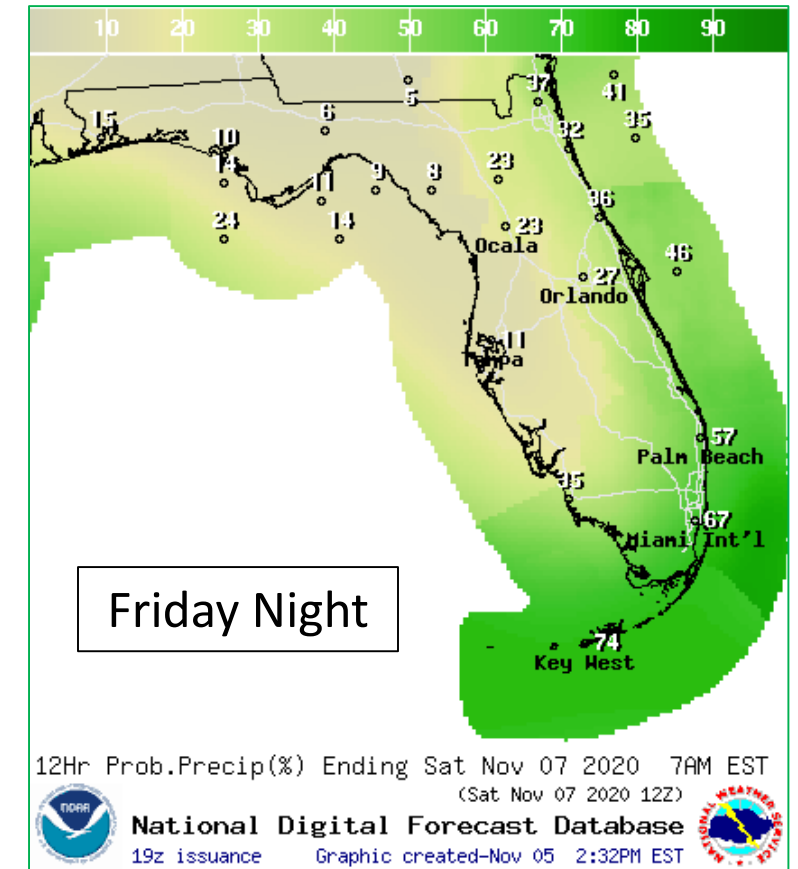
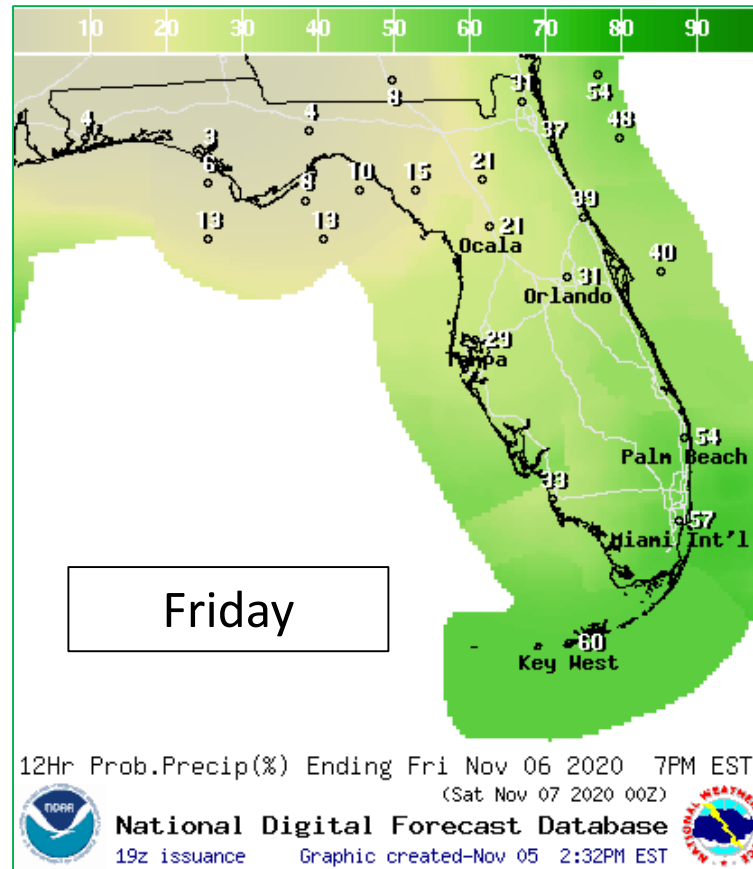
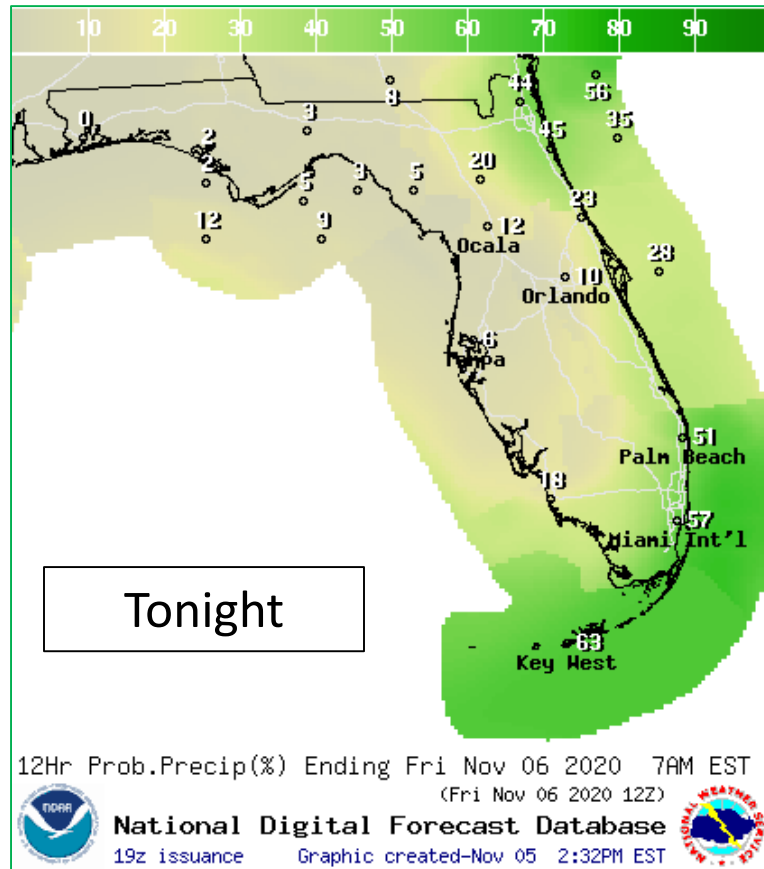
Analysis Time: 12z Nov 05 2020





Forecast Rain Chances

UNRELATED TO TROPICAL STORM ETA

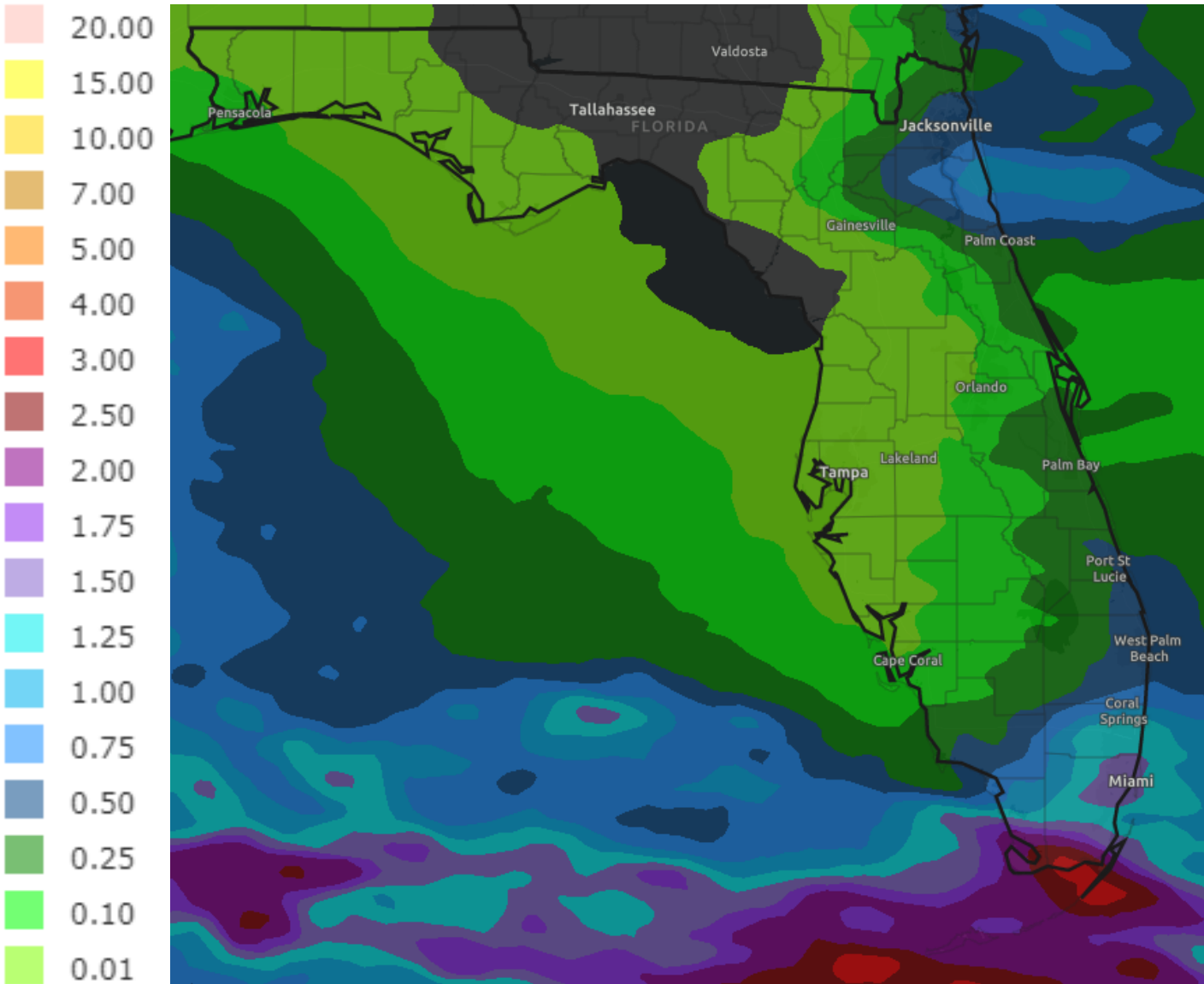


A stalled front will bring additional moisture back to the Keys and South Florida, then spread northward into Central Florida and the East Coast through Friday. This is well in advance of any impacts Tropical Storm Eta.



Rainfall Totals Next 2 Days

UNRELATED TO TROPICAL STORM ETA



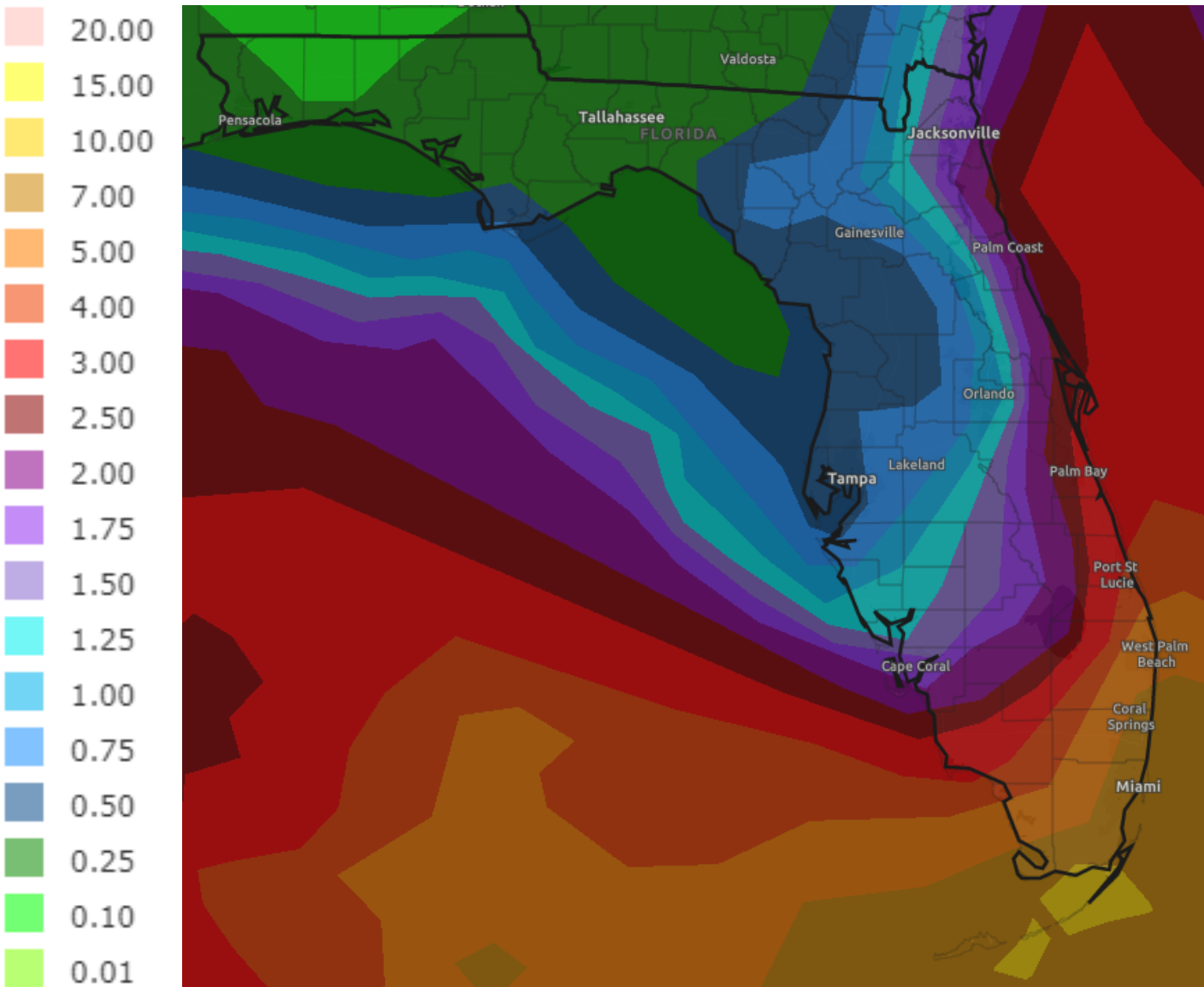
The stalled front will bring a potential for heavy rainfall tonight over the next couple days in Southeast Florida and across the Keys.

Rainfall totals of 1-3" are possible through the end of the week with locally higher totals of 3-5" possible. This could result in some localized flash flooding.



Rainfall Totals Next 7 Days

Ending 7 PM ET Thursday



As Eta approaches this weekend into early next week, additional heavy rainfall is likely across South Florida and the Keys, gradually spreading northward into next week.

There remains considerable uncertainty in the exact placement of the heavy rainfall. However, it appears that much of Eta's rainfall could be to the east of its center.

Combining rainfall from Eta and the stalled front, a widespread 6-12" of rain is possible across South Florida through early next week. Localized areas in South Florida and the Keys could see 15"+ of rain.

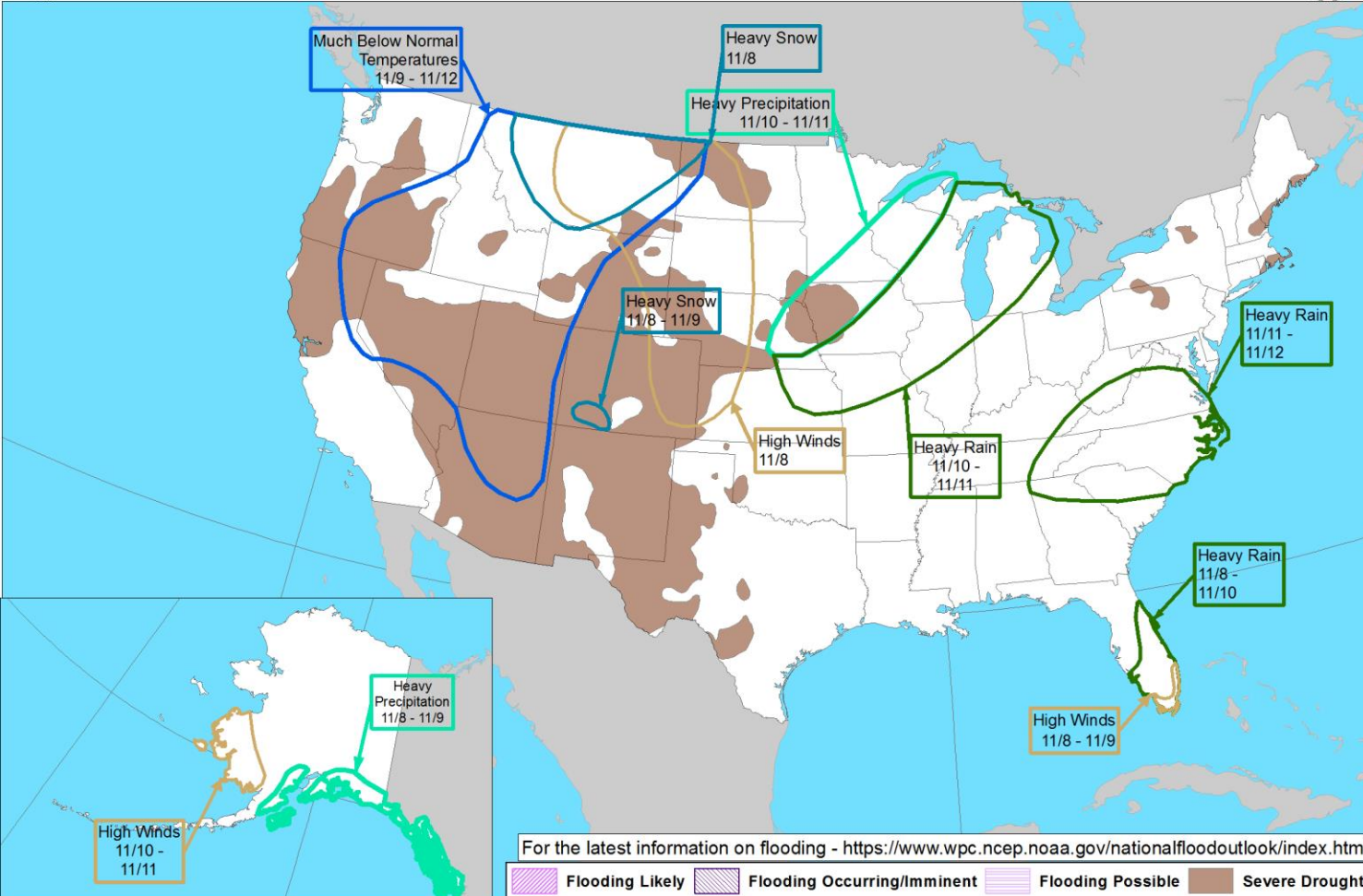


Hazard Outlook

From the [Weather Prediction Center](#)



Day 3-7 U.S. Hazards Outlook
Valid: 11/08/2020-11/12/2020



A heavy rainfall threat will continue in the Peninsula and along the East Coast into early next week as Eta approaches the region.

Weather Prediction Center

Made: 11/05/2020 3PM EST

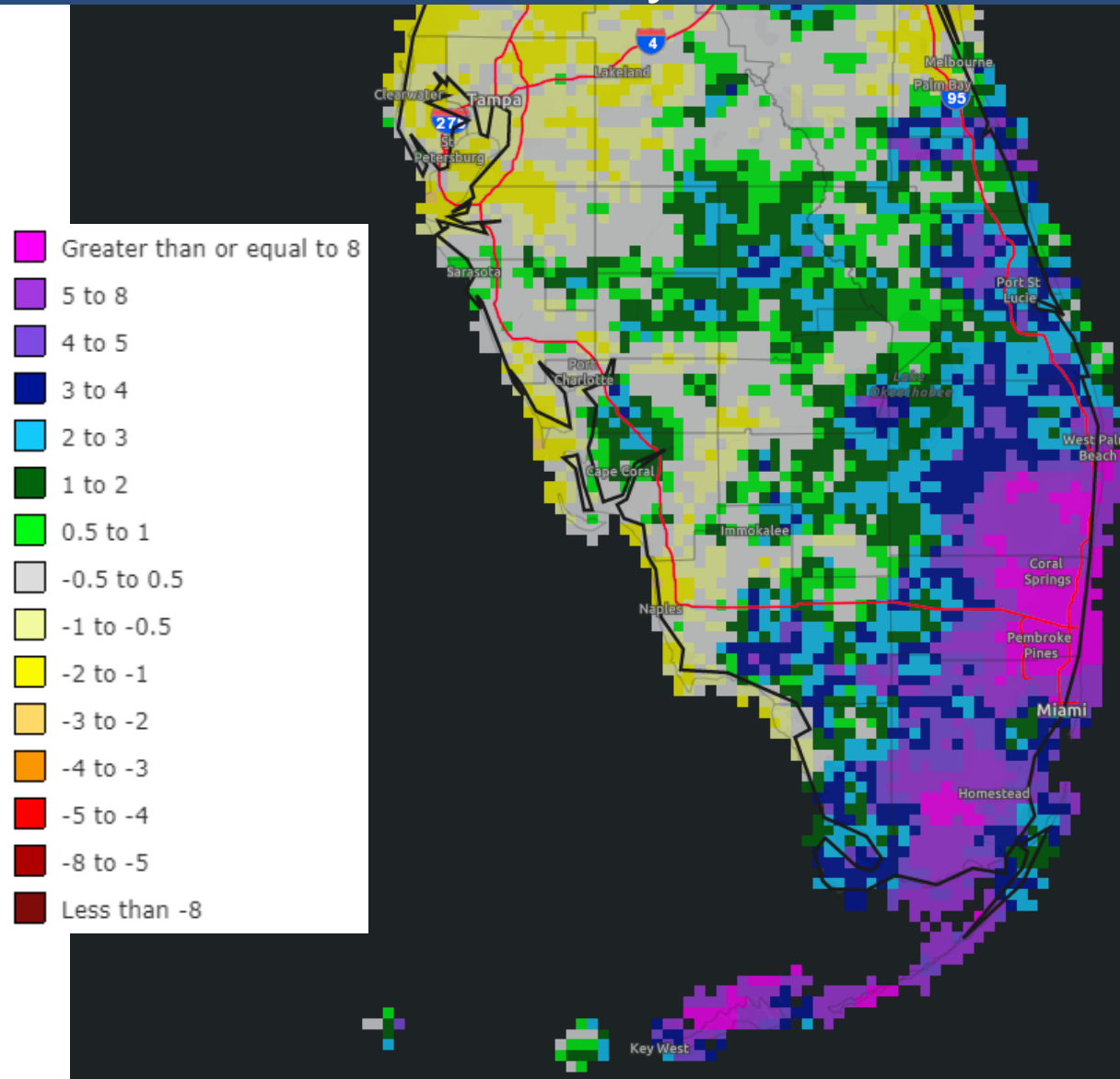
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www.wpc.ncep.noaa.gov



Rainfall Compared to Average

Last 30 Days



Much of Southeast Florida and the Keys have seen abundant rainfall over the last 30 days (and much of this year). Some areas received 10-20" of rain in the last month, which is 1.5 to 3 times the normal rainfall. This has resulted in saturated soils and could result in flash flood concerns.

Areas farther inland and along the West Coast have generally seen near-average rainfall.

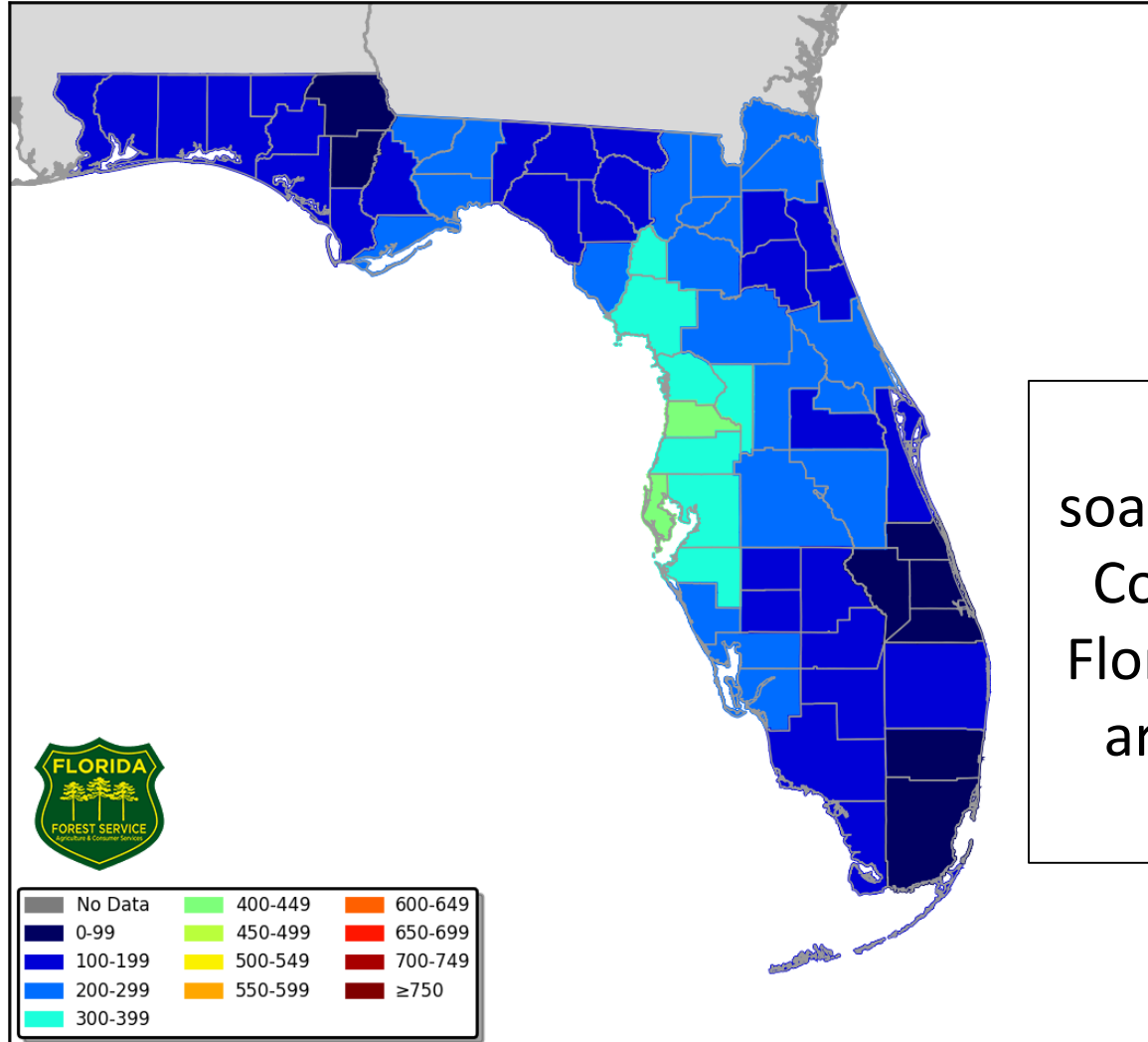
City	Rainfall	% of Average
Key West	6.11"	133%
Marathon	10.43"	224%
Miami	9.06"	157%
Hollywood	19.09"	303%
Ft. Lauderdale	10.20"	160%
West Palm Beach	9.14"	183%
Stuart	7.63"	135%
Ft. Pierce	7.62"	153%
Vero Beach	7.04"	154%
Ft. Myers	2.76"	105%
Sarasota	2.75"	95%
Naples	3.55"	105%



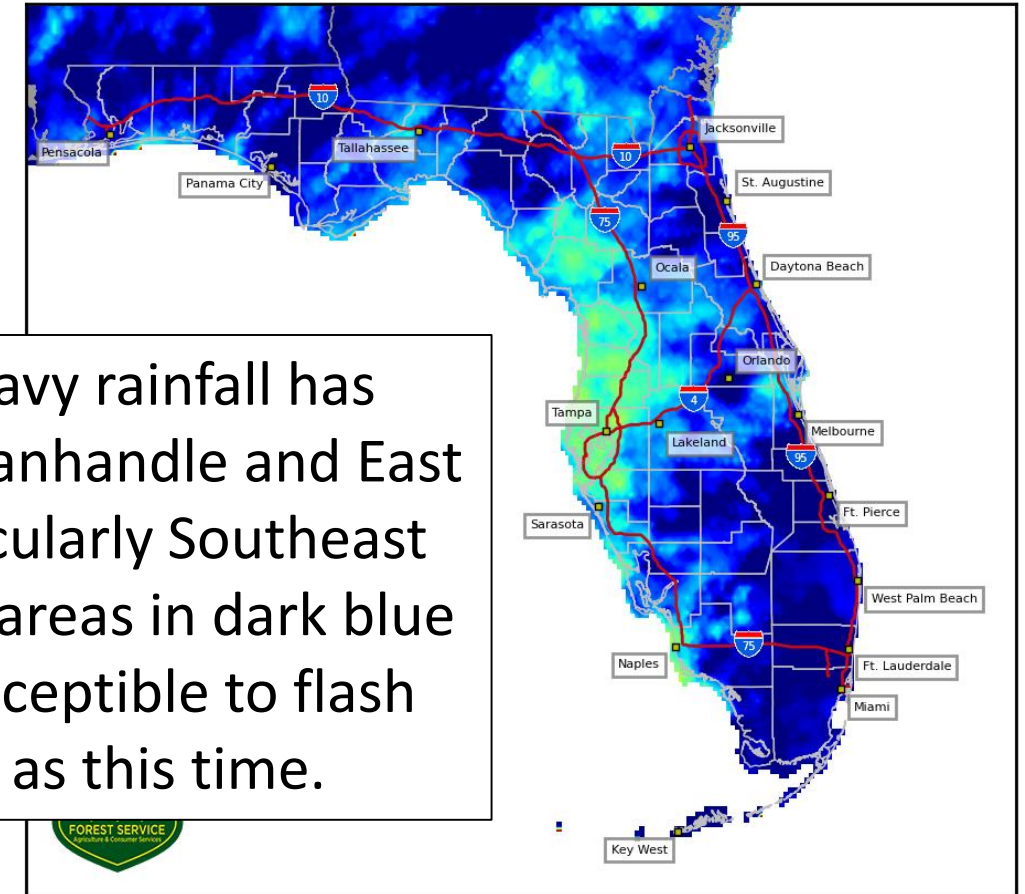
Drought Index – Soil Moisture

[KBDI – Full Report from the FFS](#)

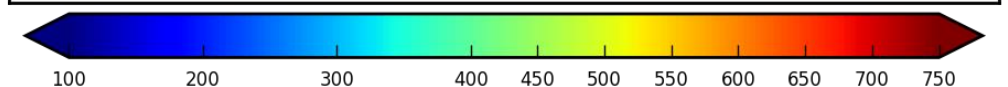
Keetch Byram Drought Index (KBDI)
County Averages for November 05, 2020



4 km Resolution KBDI
Statewide
November 05, 2020



Recent heavy rainfall has soaked The Panhandle and East Coast (particularly Southeast Florida). The areas in dark blue are very susceptible to flash flooding as this time.





Flash Flood Guidance

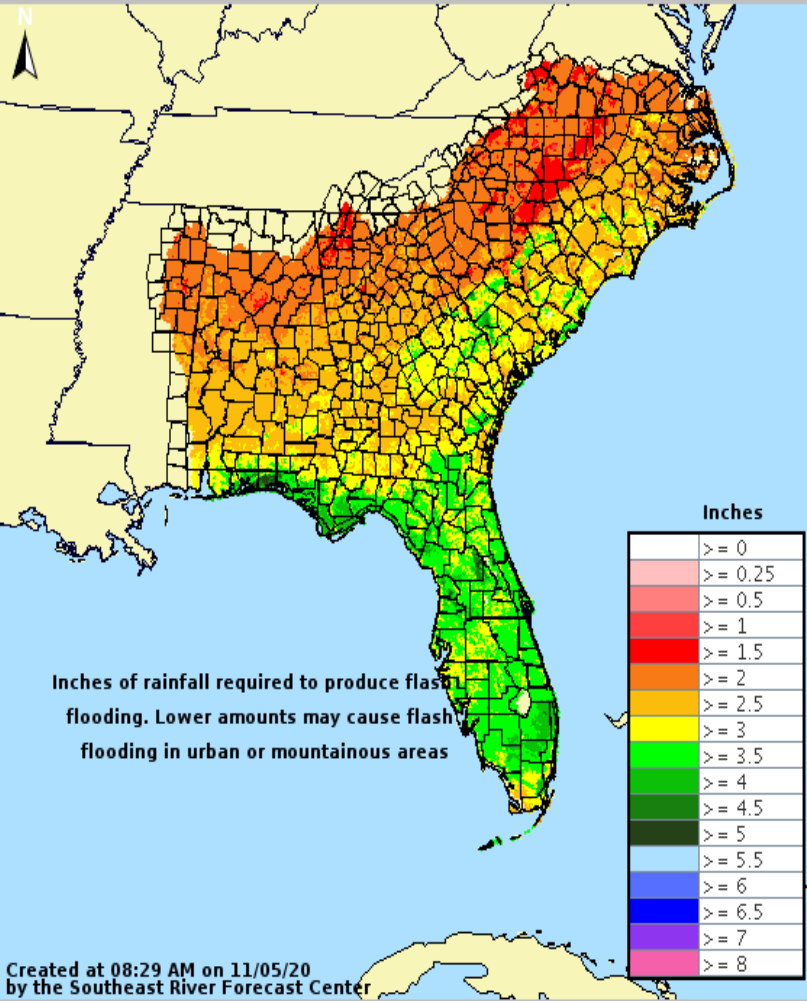
How Much Rain is Needed to Create Flash Flooding?



1-hr Flash Flood Guidance

Valid: 11/05/2020 @ 08:29 AM



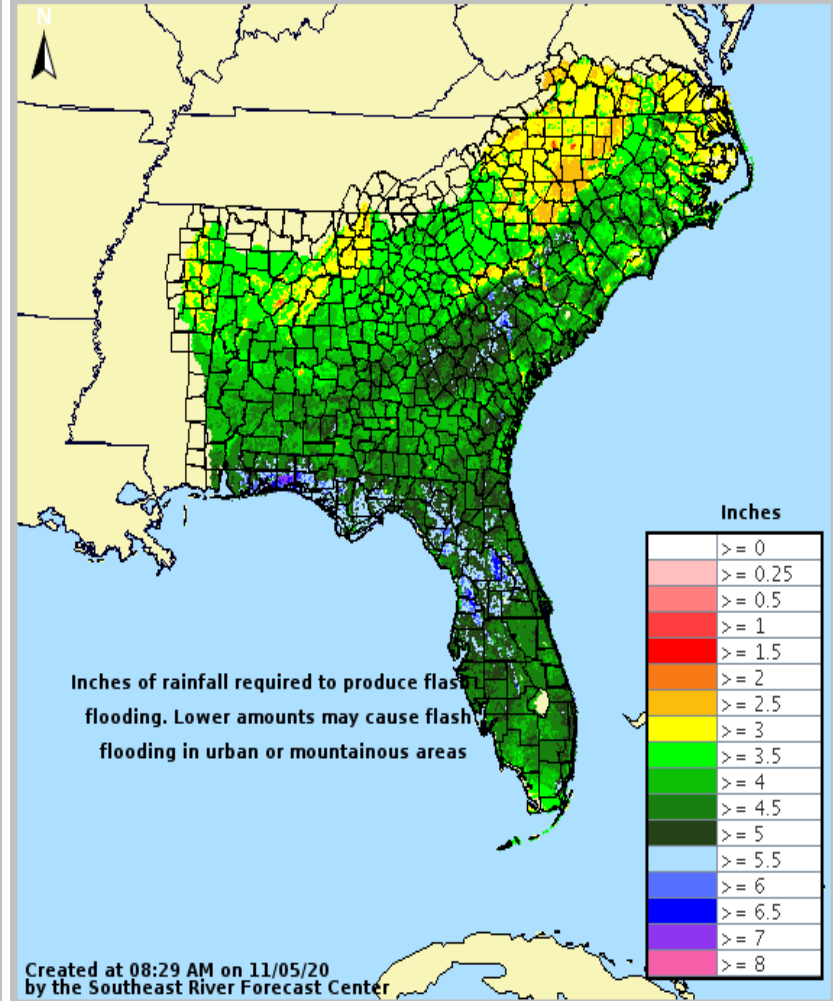




6-hr Flash Flood Guidance

Valid: 11/05/2020 @ 08:29 AM





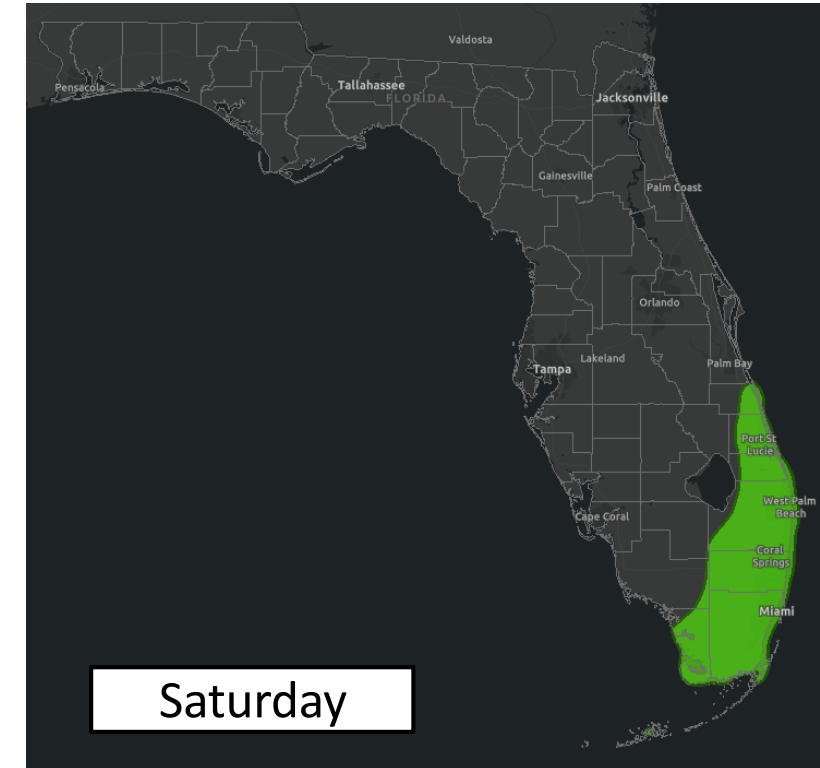
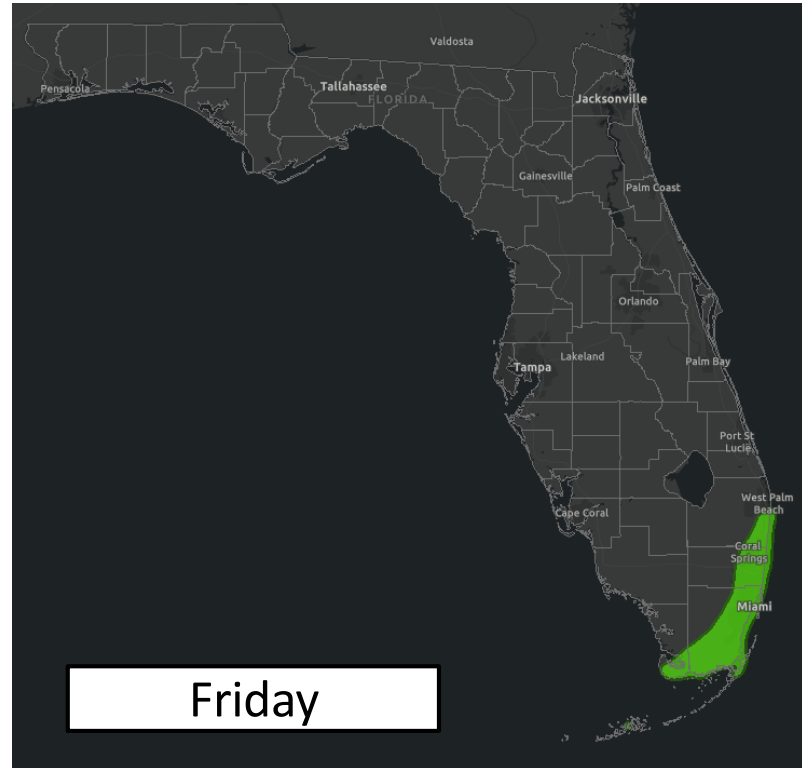
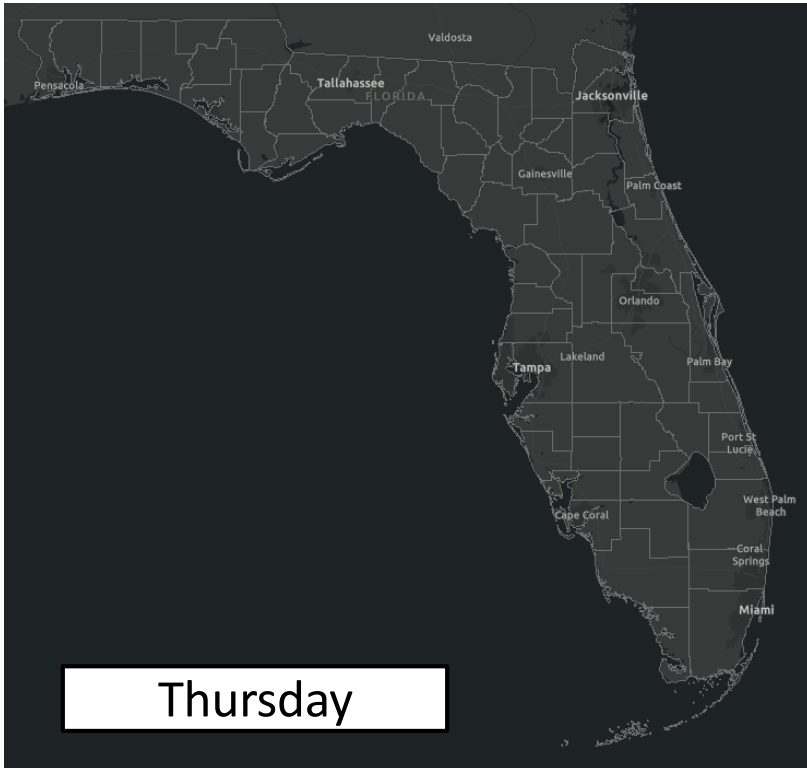
South Florida remains very wet from rainfall over the last several months. This area remains very prone to flooding.

It will take about 2-4" of rain within 1 hour or 3-5" of rain within 6 hours to cause flash flooding in these areas.



Flash Flood Outlooks

From the Weather Prediction Center



Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line

HIGH: > 50%

SLGT: 10%-20%

MDT: 20%-50%

MRGL: 5%-10%



While there is an isolated flash flood risk today in areas that see training heavy showers, the risk is slightly higher both Friday and Saturday across Southeast Florida and the Treasure Coast.



Flash Flood Risk Categories

Understanding the Weather Prediction Center Risk Scale

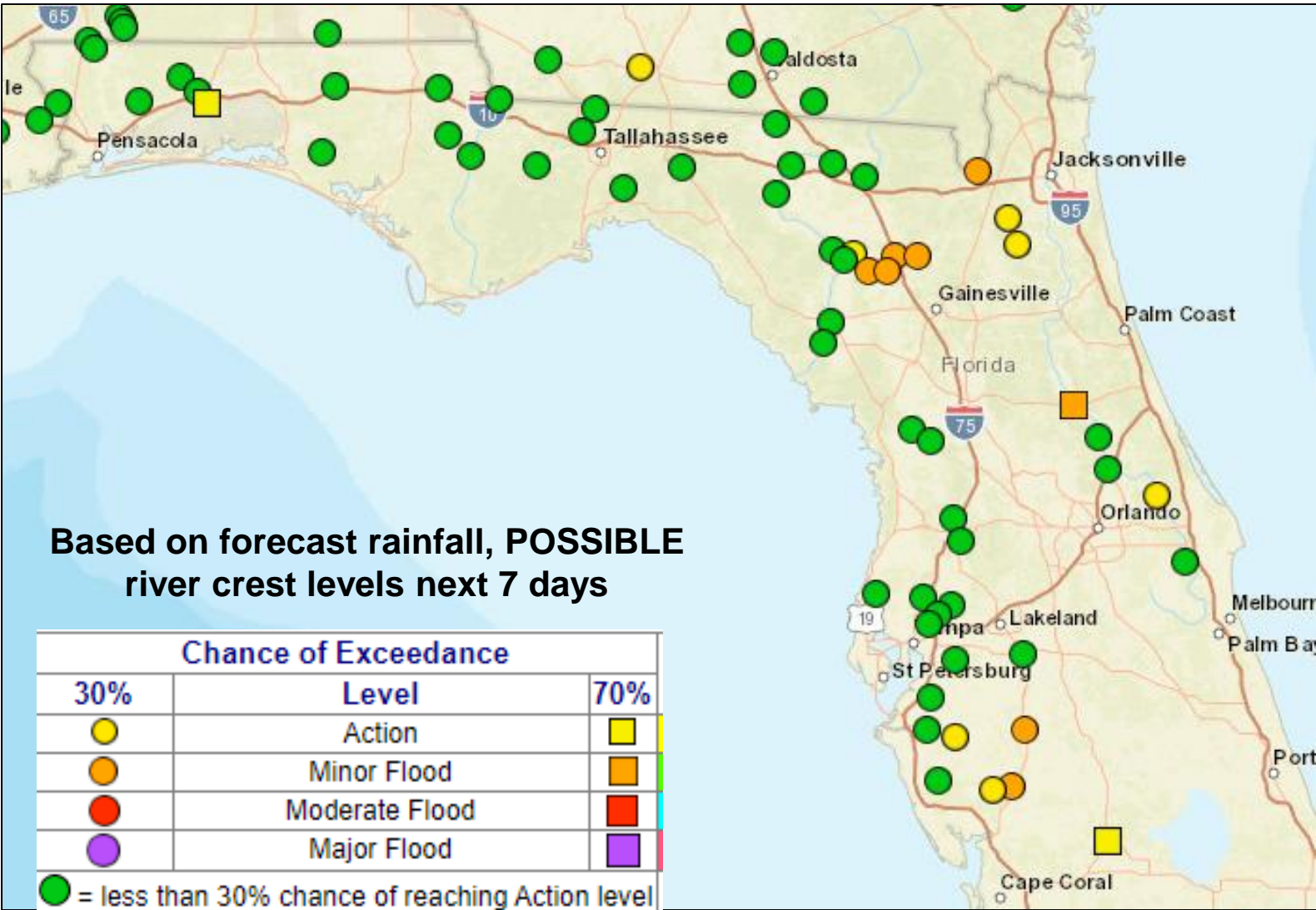
Understanding WPC Excessive Rainfall Risk Categories

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



Possible River Flooding

Chance of River Flooding Based on Range of Forecasted Rainfall



Some minor flooding is possible along some North and Central Florida rivers if heavier rainfall materializes. The Santa Fe, St. Marys, and Peace Rivers have about a 1 in 3 chance of reaching minor flood. The St. Johns River at Astor remains in minor flood.



Overall Summary

****Note:** Due to Daylight Saving Time, advisories from the National Hurricane Center are now issued one hour earlier than usual. For example, the next full advisory on Eta will be at 4pm ET/3 PM CT with an intermediate intensity advisory at 1pm ET/12pm CT.**

Tropical Depression Eta

- The center of Eta is located about 60 miles west of La Ceiba, Honduras, moving north-northwest at 8 mph.
- Maximum sustained winds are near 35 mph, and Eta should re-gain tropical storm intensity on Friday over the Caribbean.
- Eta will move into the Gulf of Honduras tonight and turn northeastward on Friday. Eta will approach the Cayman Islands and Cuba this weekend and the Florida Straits early next week.
- *However, the details on the track and intensity will remain uncertain until the system reorganizes over water Friday.*
- Once the storm is near the Florida Straits, Eta may move westward into the eastern Gulf of Mexico.

Florida Outlook:

- Prior to any impacts from Eta, locally heavy rainfall in association with a stalled front will be possible across South Florida and the Keys through the end of the week. 1-3" of rain, locally 3-5" will be possible through Saturday.
- As Eta approaches, heavy rainfall will become likely again across South Florida and the Keys. 7-day rainfall totals (including the heavy rain this week) could approach a widespread 6-12" with localized totals of 15"+. 3-5" over 7 days are possible farther north along the East Coast.
- Additional impacts, such as tornadoes, storm surge, and strong winds, are still uncertain. More details should clear up once the system becomes reorganized.
- Beyond 5 days, the system may need to be monitored farther north in the state, but this remains highly uncertain.

The next tropics packet will be issued Friday morning with the 10 AM ET advisory. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE



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State Meteorological Support Unit

Florida Division of Emergency Management

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