



TROPICAL UPDATE



4:00 PM EST

Saturday, November 7, 2020

Tropical Storm Eta

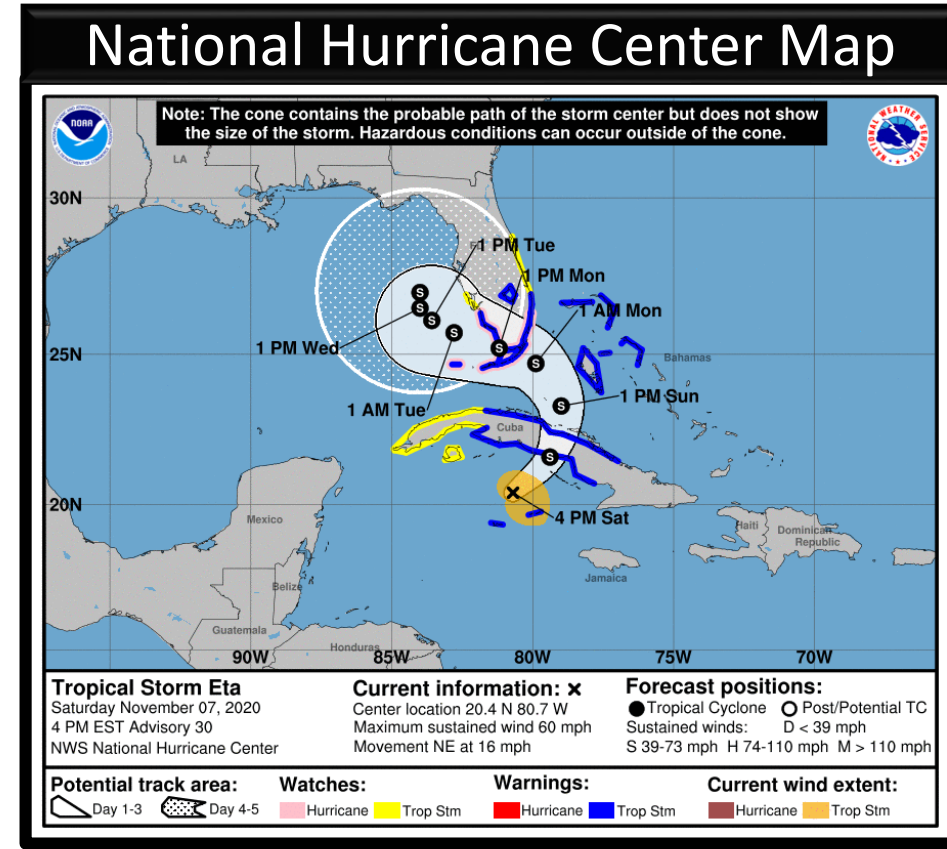
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an 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.



Tropical Storm Eta

4 PM ET Saturday: 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:

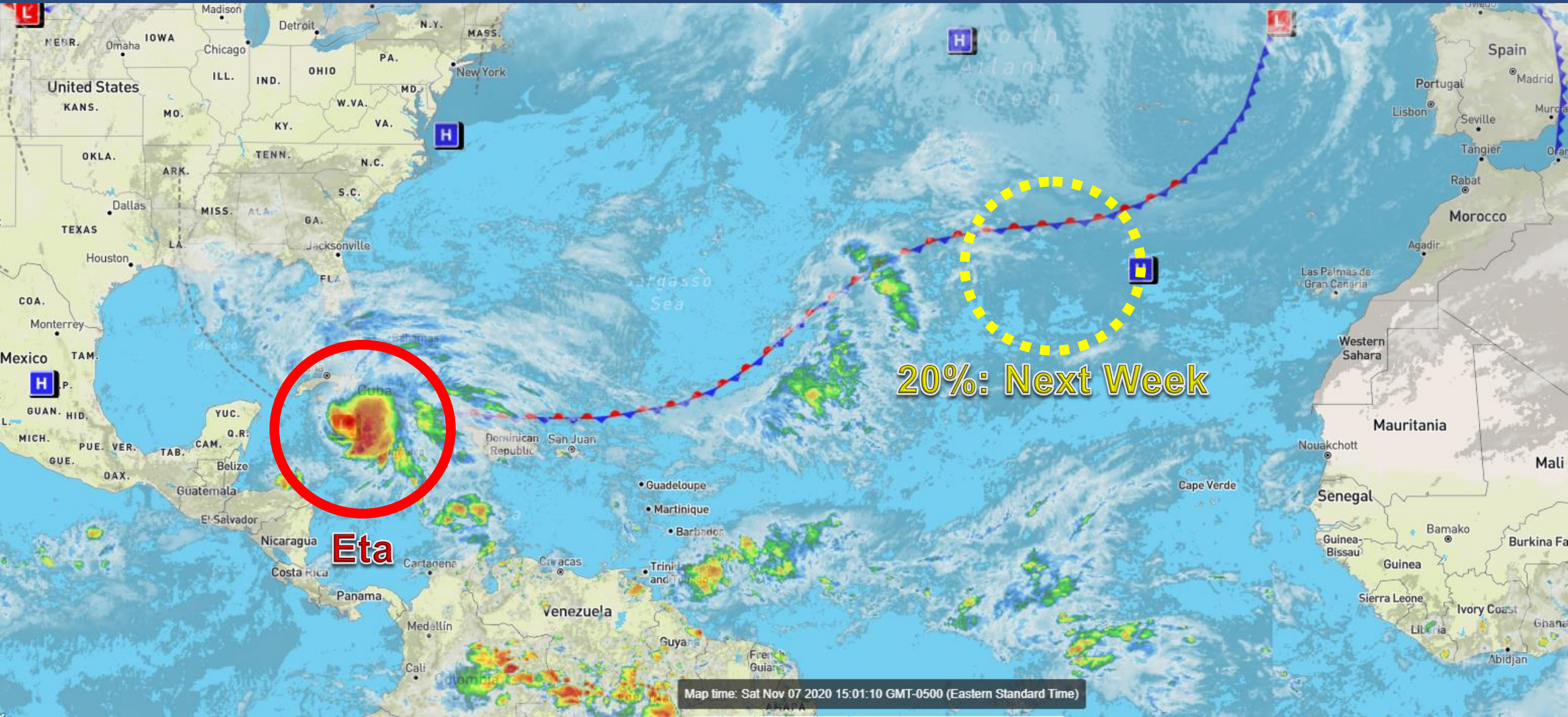
Eta has strengthened today with maximum sustained winds of 60 mph.
 Hurricane and Storm Surge Watches are now in effect for parts of South Florida and the Keys.
 Eta could be near hurricane strength as it approaches Florida.

*****Impacts will extend well away from the center*****



Atlantic Basin Satellite Image

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



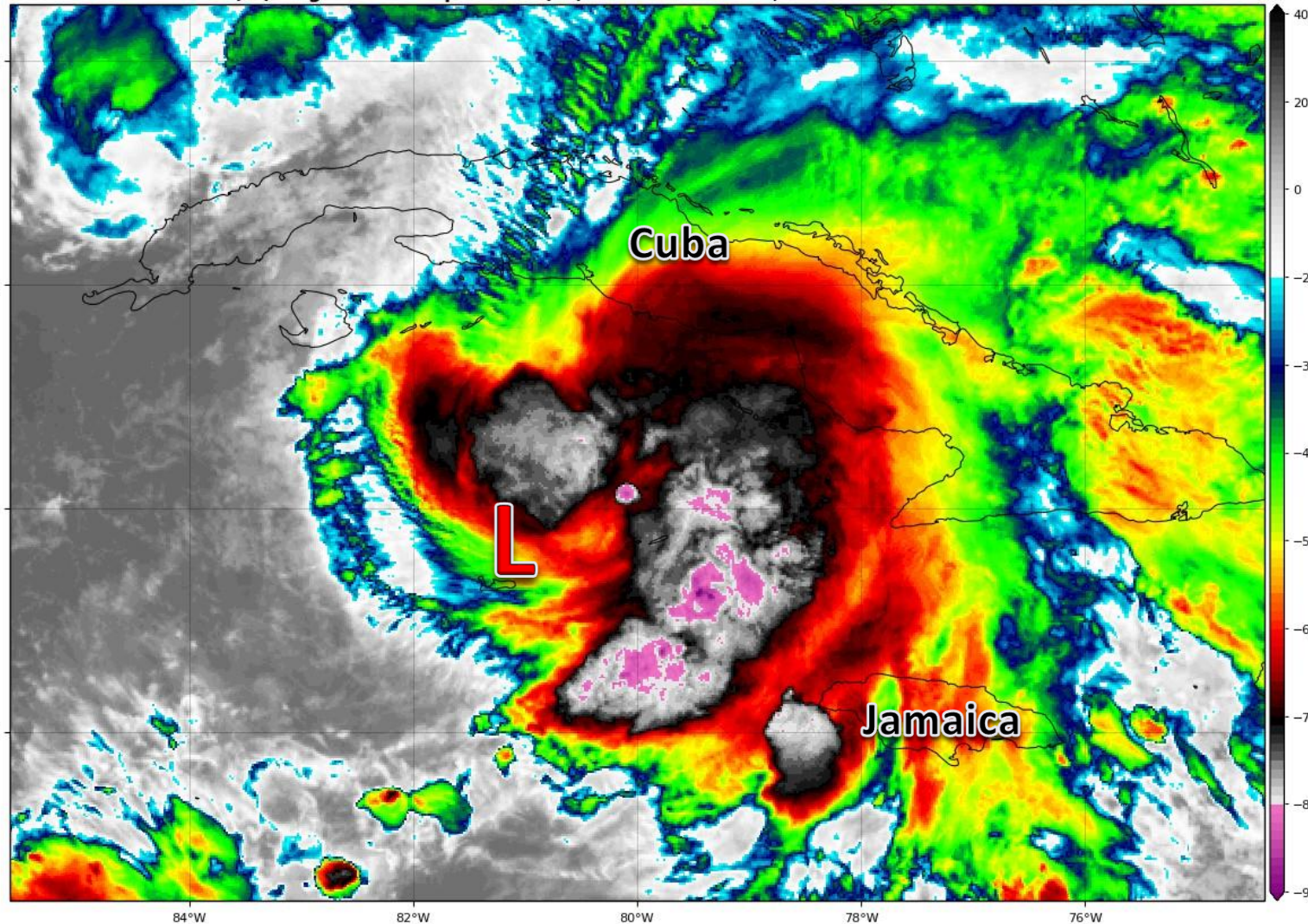


Satellite Imagery

Tropical Storm Eta – Western Caribbean

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 19:57Z Nov 07, 2020

TROPICALTIDBITS.COM

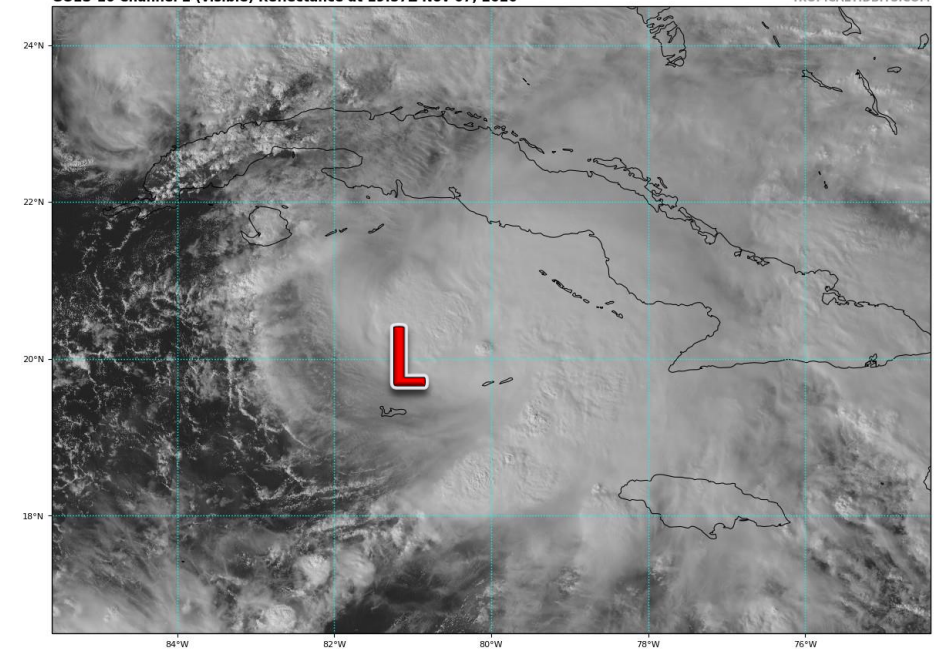


The center of Eta relocated closer to the thunderstorms, but it still remains on the southwest side due to strong wind shear.

However, Eta's center relocation allowed for a quick burst of intensification this afternoon as Hurricane Hunters investigated the system.

GOES-16 Channel 2 (visible) Reflectance at 19:57Z Nov 07, 2020

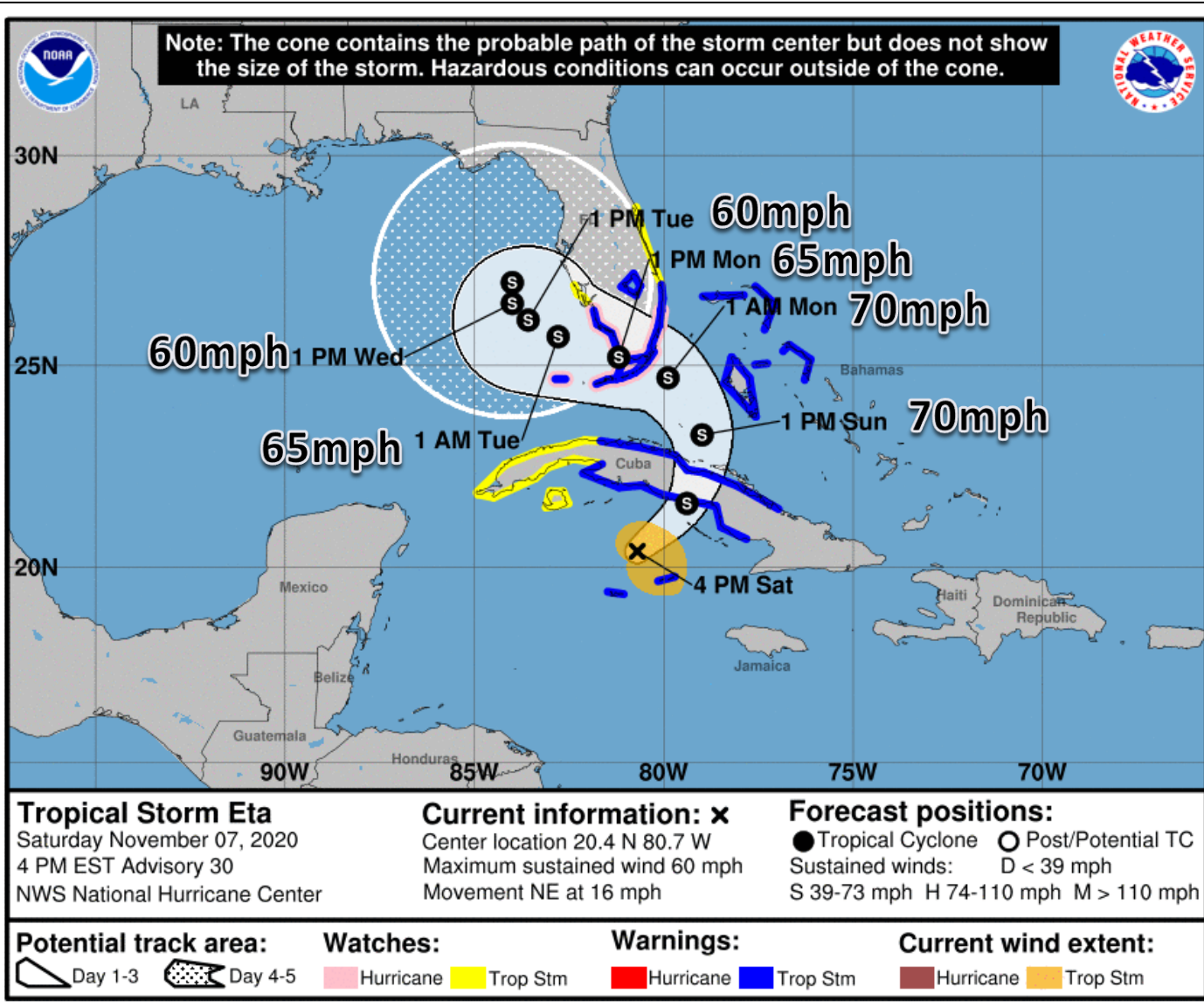
TROPICALTIDBITS.COM





Official Forecast Track

From the National Hurricane Center – Tropical Storm Eta



- The center of recently upgraded Tropical Storm Eta is located about 85 miles north-northeast of Grand Cayman, moving northeast at 16 mph.
- Maximum sustained winds are near 60 mph, and additional strengthening is forecast through Sunday night. ***Eta could be near hurricane strength as it approaches Florida.***
- Eta will move over Cuba tonight and early Sunday morning, then be near or over South Florida and the Keys by Monday morning.
- Eta will turn northward again and slow down in the eastern Gulf of Mexico early to mid next week and slowly weaken as cooler waters and dry air impact the system.
- **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 Storm Eta

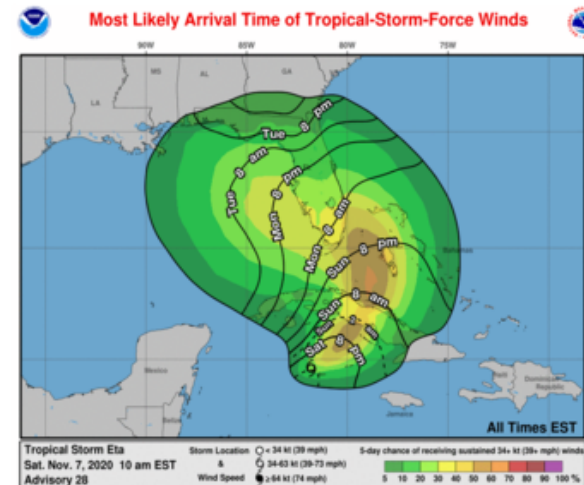
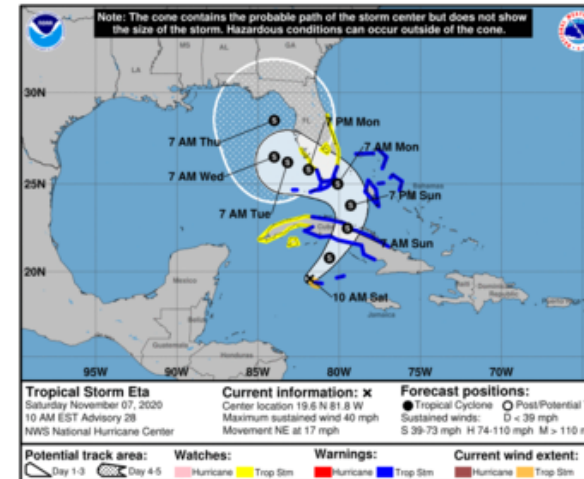
Advisory 28: 10:00 AM EST Sat Nov 07, 2020



1. Heavy rainfall will continue across the Cayman Islands, portions of Cuba and Jamaica, and will spread north into the Bahamas and southern Florida. This rain may result in significant, life-threatening flash flooding and river flooding in Cuba. Flash and urban flooding will also be possible for the Cayman Islands, Jamaica, the Bahamas and southern Florida.

2. Tropical storm conditions are expected today and Sunday in portions of the Cayman Islands, Cuba, and the northwestern Bahamas, where a Tropical Storm Warning is in effect.

3. Tropical storm conditions are expected by late Sunday in the Florida Keys and along portions of the southeast Florida coast, where a Tropical Storm Warning is in effect. Tropical storm conditions are possible elsewhere in portions of southern and central Florida beginning Sunday night, where a Tropical Storm Watch is in effect. Additional Tropical Storm Warnings will likely be needed later today.



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

47%

+13%

Marathon

56%

+14%

Miami

54%

+13%

Ft. Lauderdale

61%

+10%

West Palm Beach

44%

+1%

Naples

57%

+11%

Ft. Myers

36%

+3%

Tampa

32%

+/-0%

Orlando

13%

-2%

Daytona Beach

9%

-1%

Apalachicola

17%

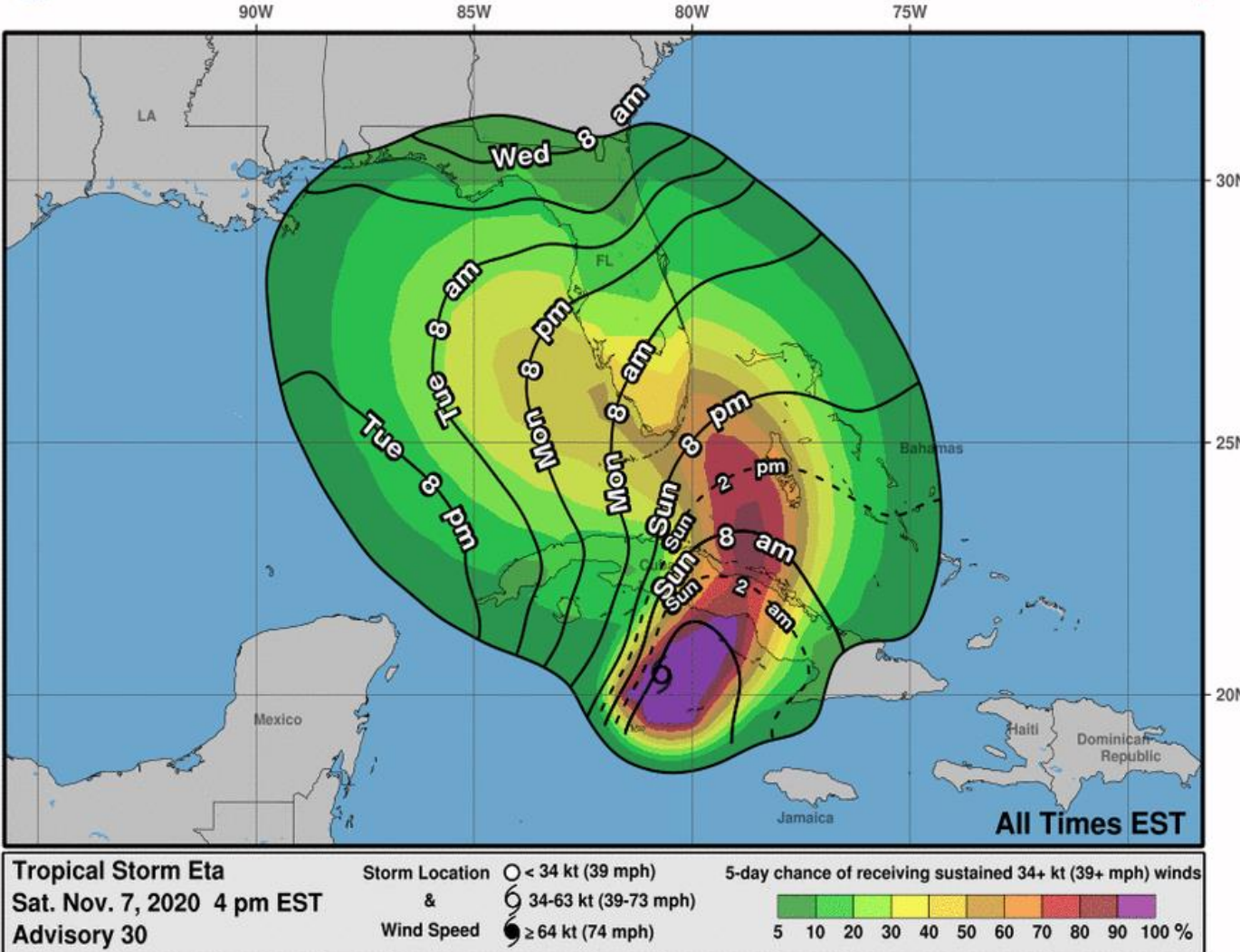
-1%

Panama City

14%

-1%

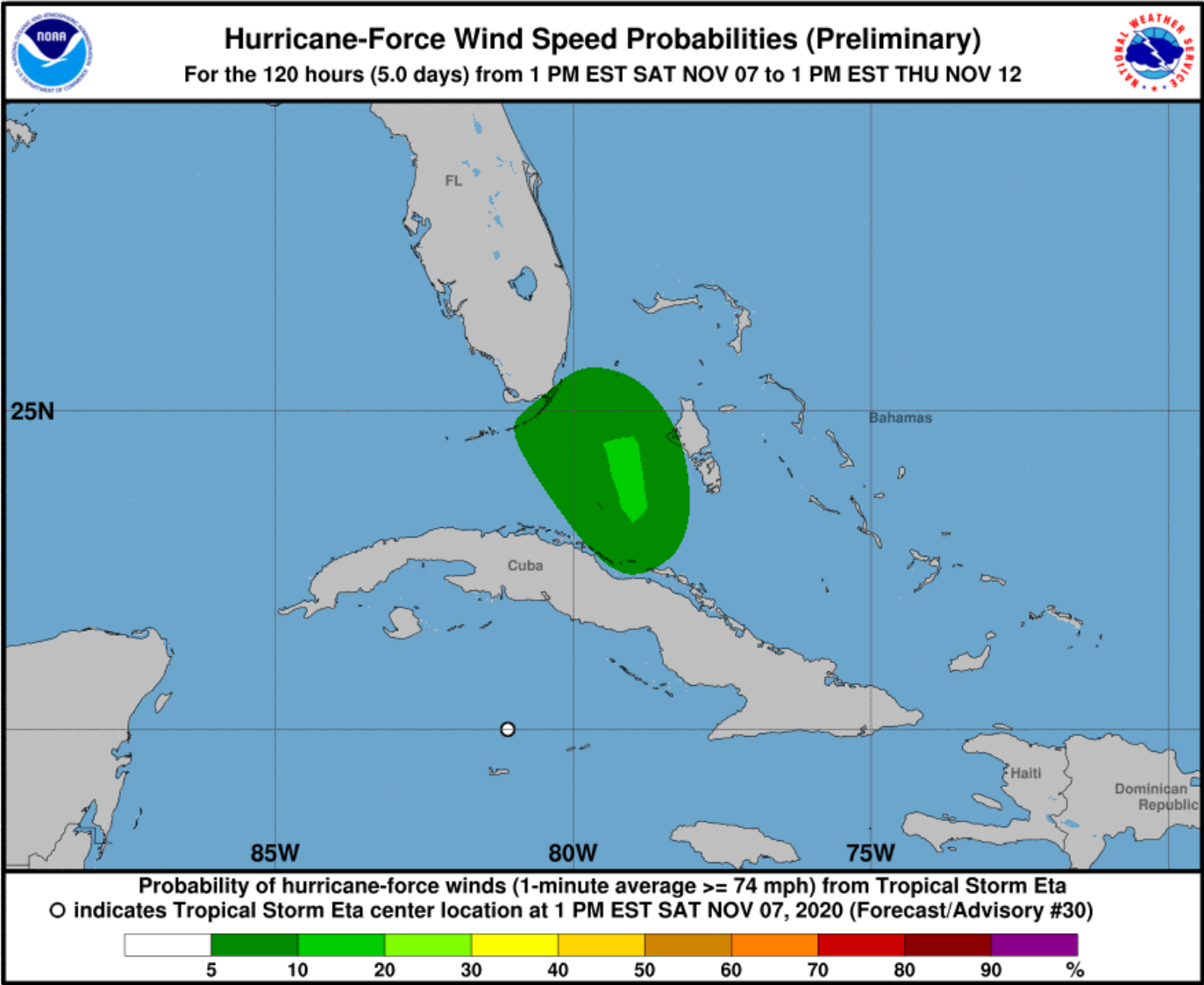
Tropical storm force winds are likely to begin in South Florida and the Keys Sunday night into Monday morning, then along the West Coast on Monday. If tropical-storm-force winds occur farther north toward the Nature Coast or the Big Bend, they would begin Tuesday or Wednesday.





Hurricane Wind (74+ mph) Speed Probabilities

Probability of Sustained Winds of 74+ mph



City

Chance for Hurricane-Force Winds

Key West	4%
Marathon	7%
Miami	3%
Naples	5%

Chances for hurricane-force sustained winds have increased in the Florida Keys and far southeast Florida.

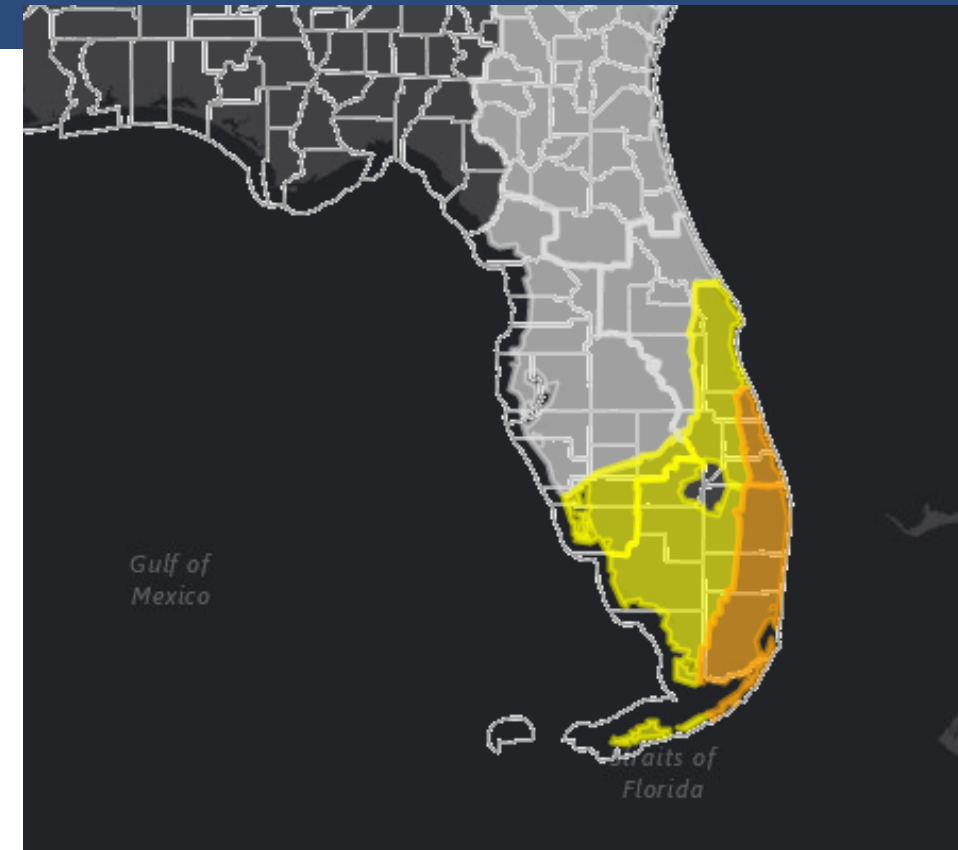


Flood Threat Overview

Tropical Storm Eta

The flood threat is greatest across the Treasure Coast, Southeast Florida, and the Middle and Upper Keys, but flooding cannot be ruled out in the rest of South and East Central Florida.

Flood Watches are in effect for much of South Florida and the Treasure Coast.



[\[Download KML\]](#)

[\[Download Image\]](#)

Flooding Rain Threat
Potential for extreme flooding rain
Potential for major flooding rain
Potential for moderate flooding rain
Potential for localized flooding rain
Little to no potential for flooding rain

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

Click on “Threats and Impacts” Tab



Flood Watches

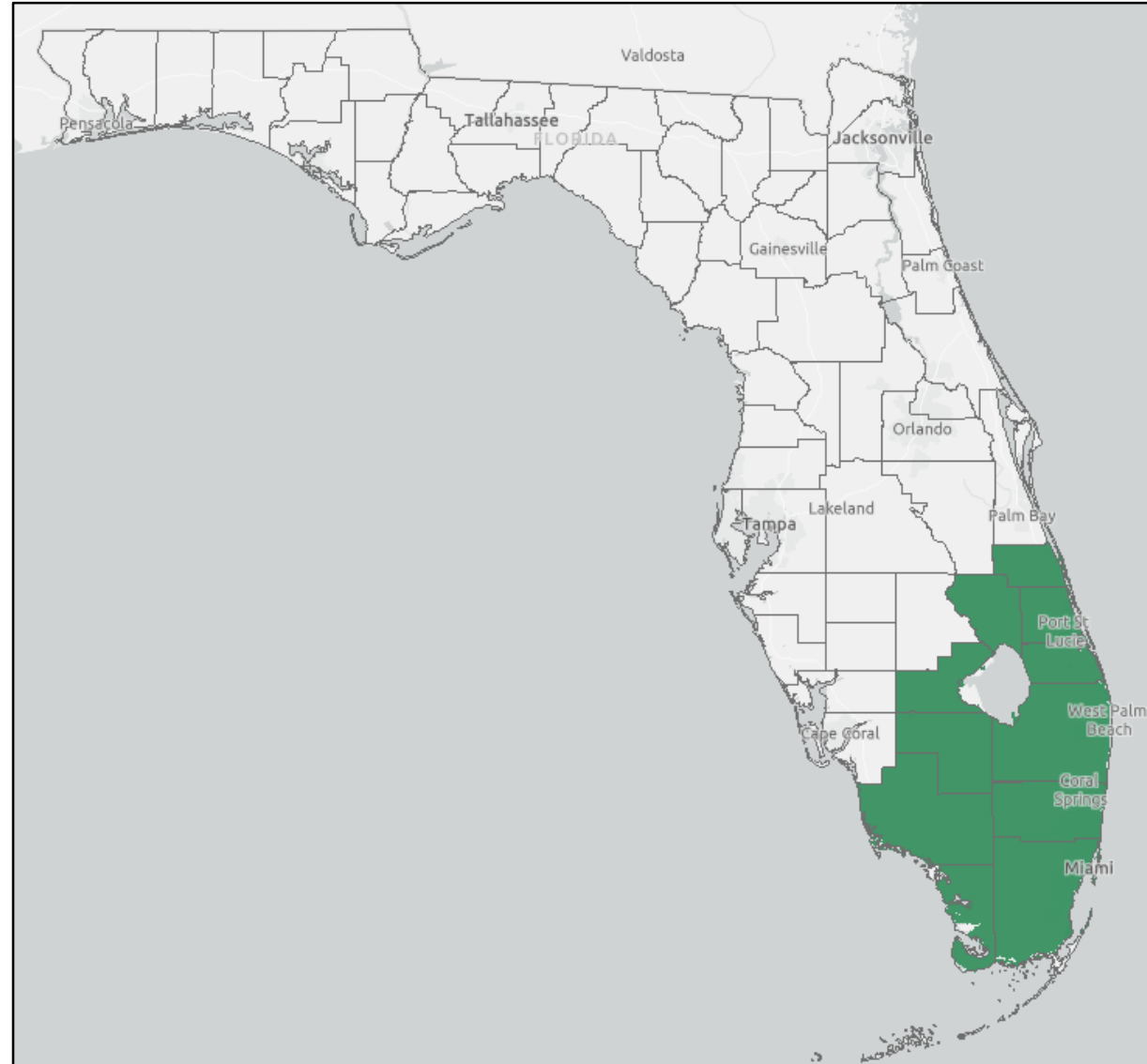
Links: [NWS Miami](#) | [NWS Melbourne](#)

From tonight through Monday Evening:

Indian River, St. Lucie, Martin, and
Okeechobee Counties

Now until Tuesday Evening:

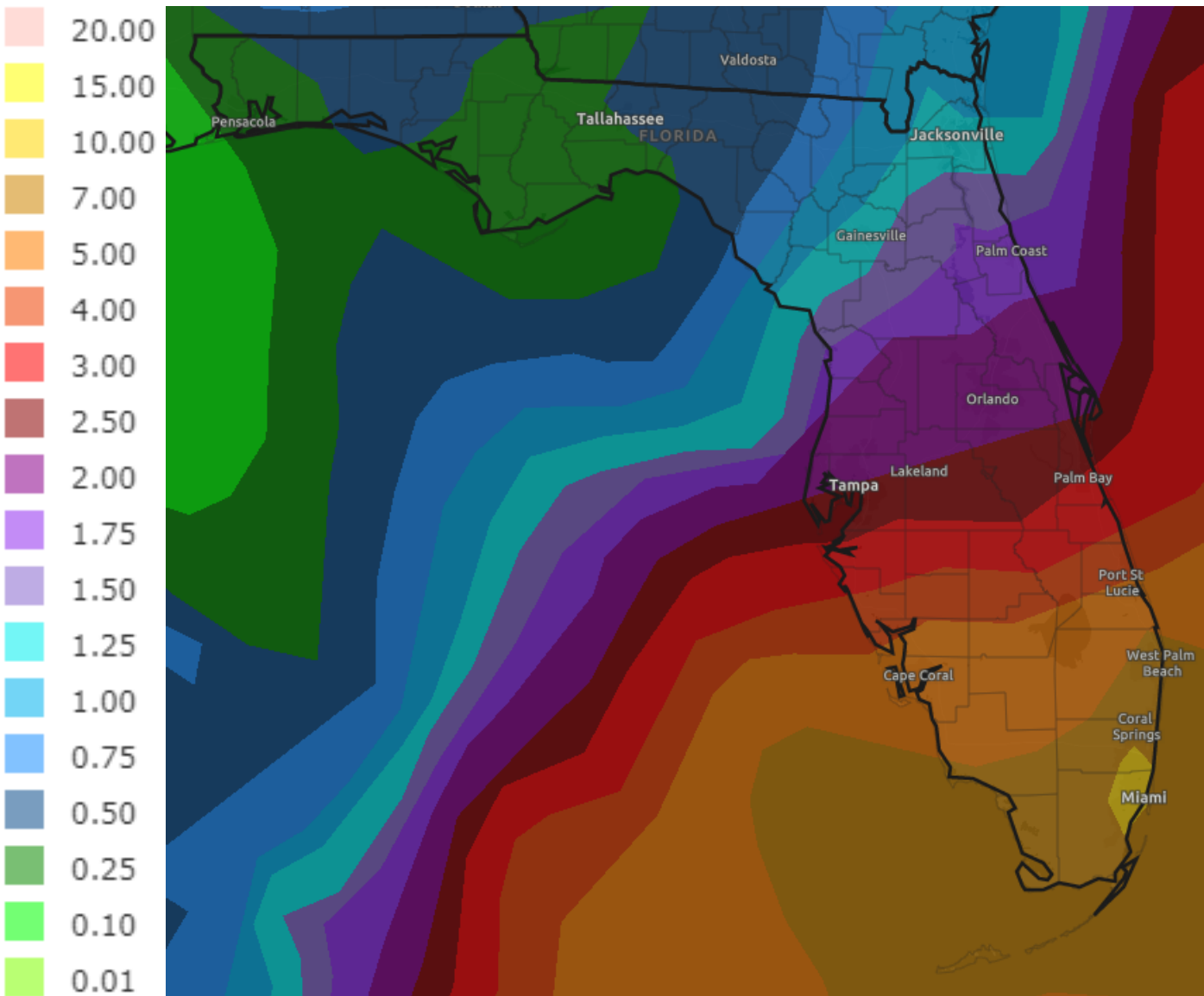
Glades, Hendry, Collier, mainland Monroe,
Palm Beach, Broward, and Miami-Dade
Counties





Rainfall Totals Next 7 Days

Ending 7 AM ET Saturday



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 north and east of its center.

A widespread 5-10" of rain is possible across South Florida through early next week. Localized areas in South Florida and the Keys could see 15"+ of rain.

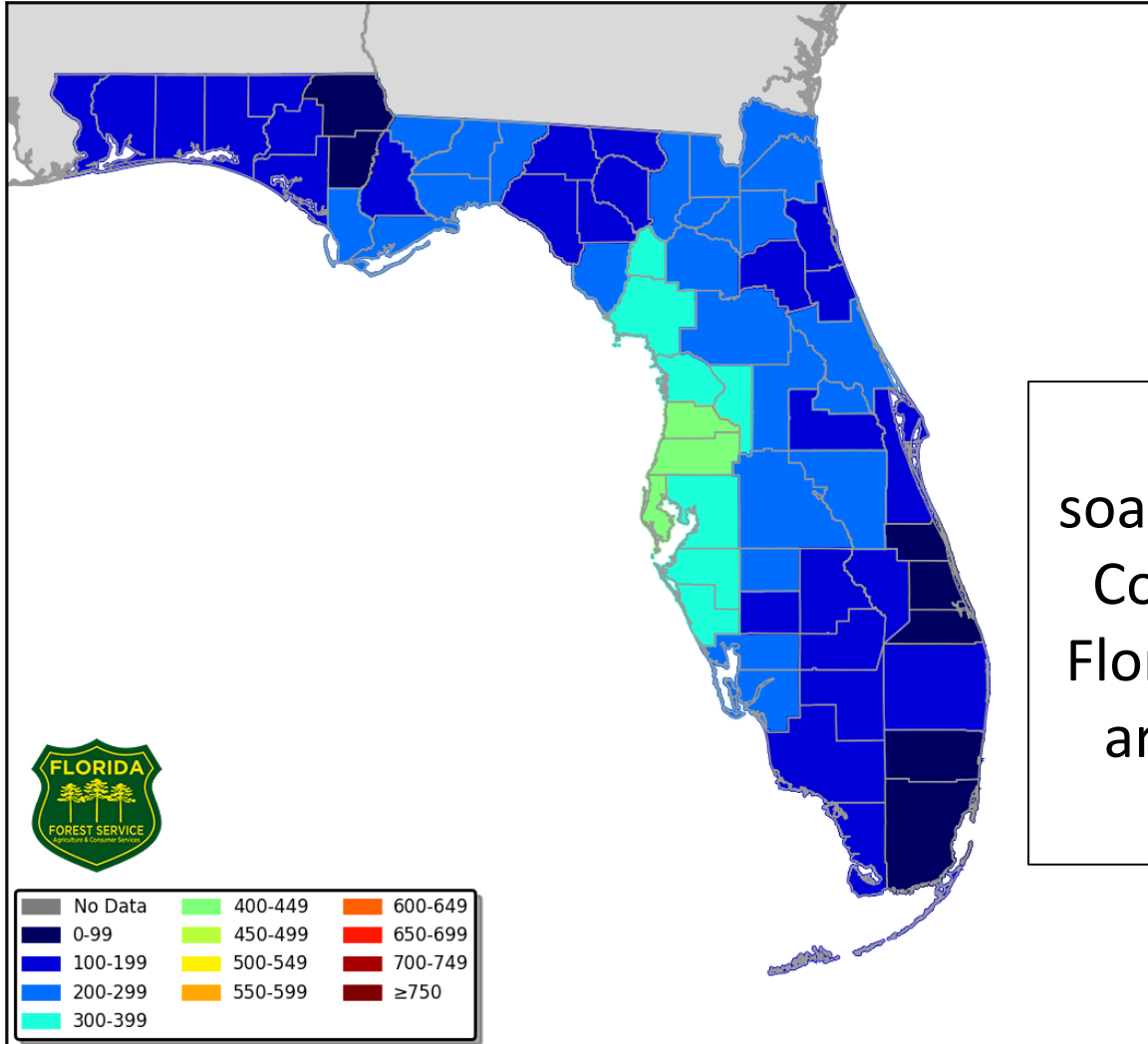
Areas between I-4 and Lake Okeechobee could see 2-4" of rain with localized totals of 6-8".



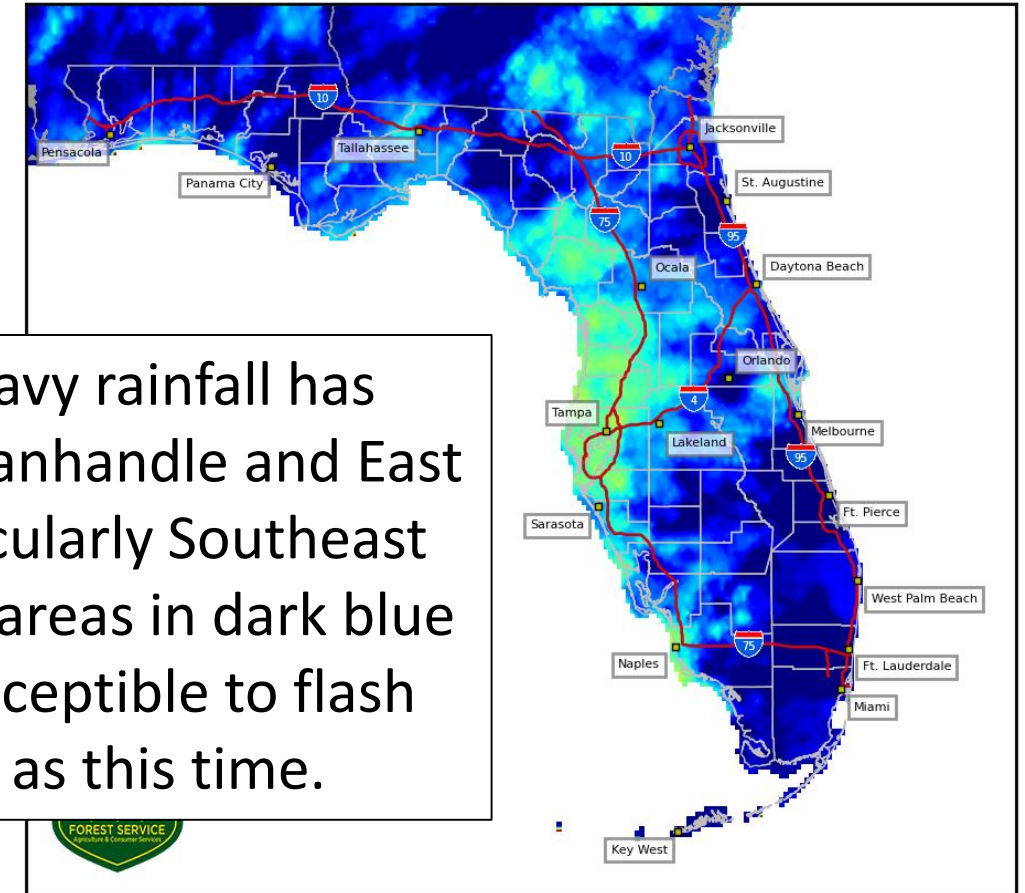
Drought Index – Soil Moisture

[KBDI – Full Report from the FFS](#)

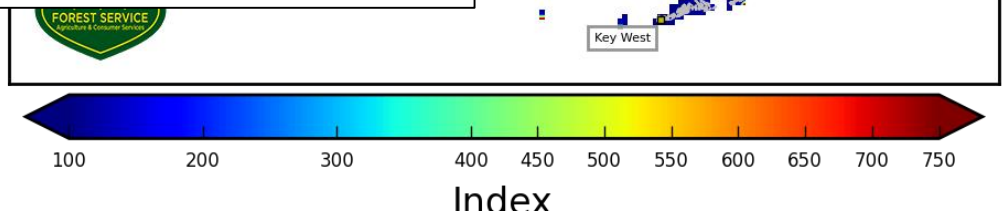
Keetch Byram Drought Index (KBDI)
County Averages for November 06, 2020



4 km Resolution KBDI
Statewide
November 06, 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.





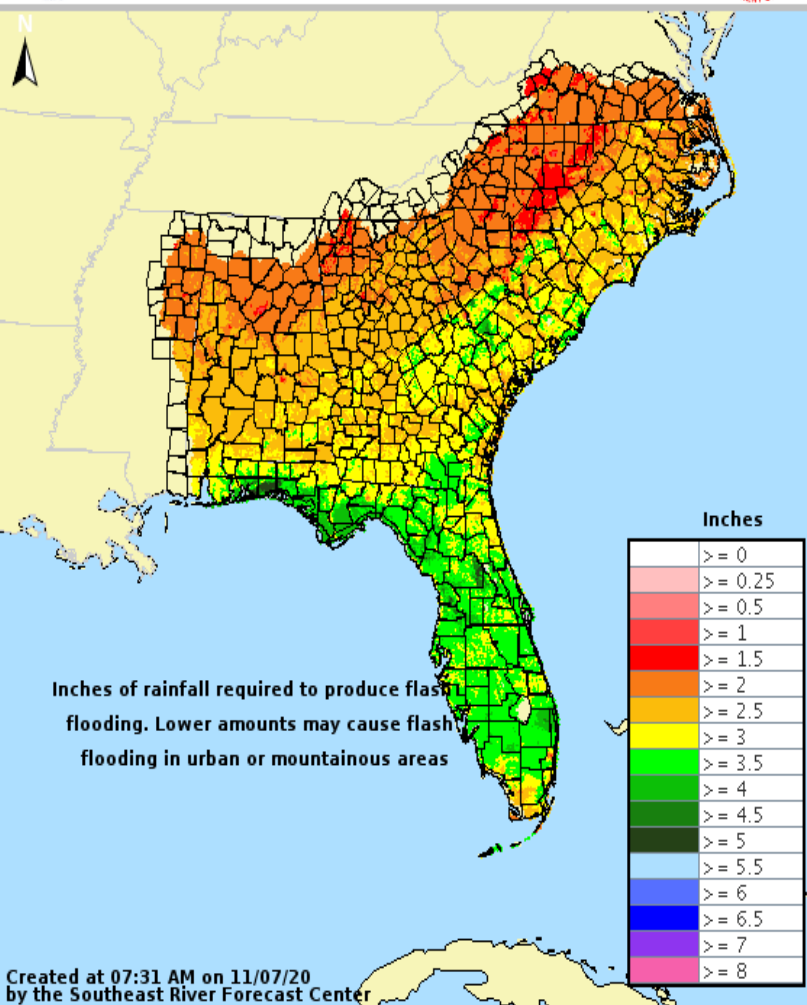
Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?



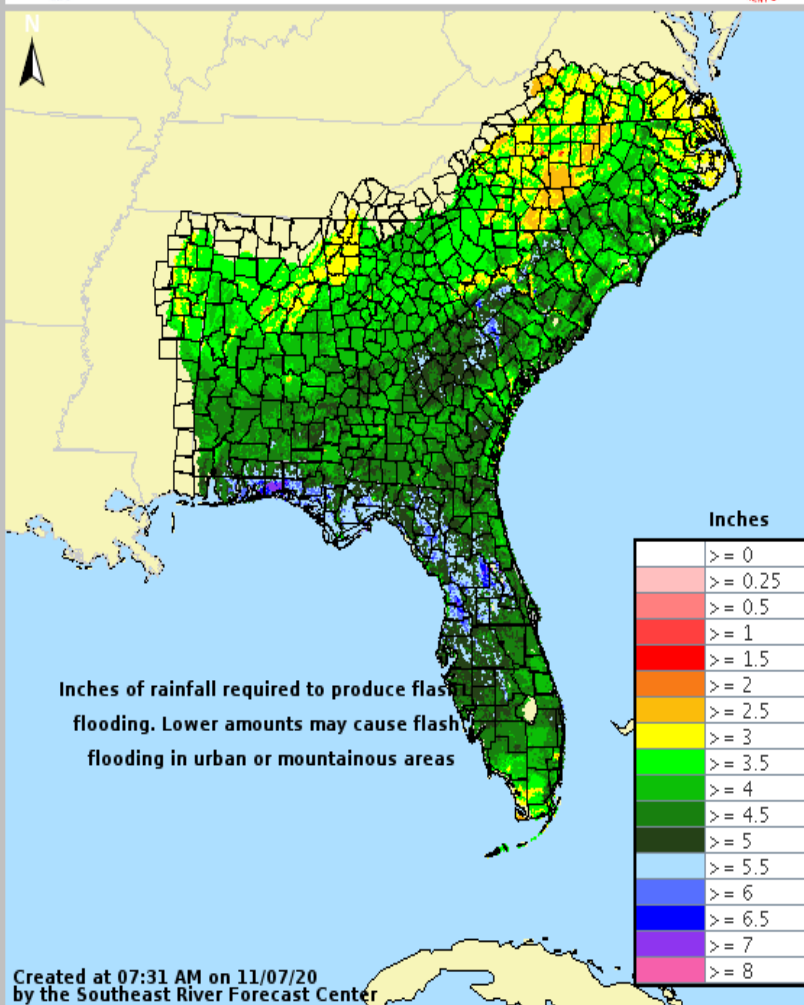
1-hr Flash Flood Guidance

Valid: 11/07/2020 @ 07:31 AM



6-hr Flash Flood Guidance

Valid: 11/07/2020 @ 07:31 AM



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

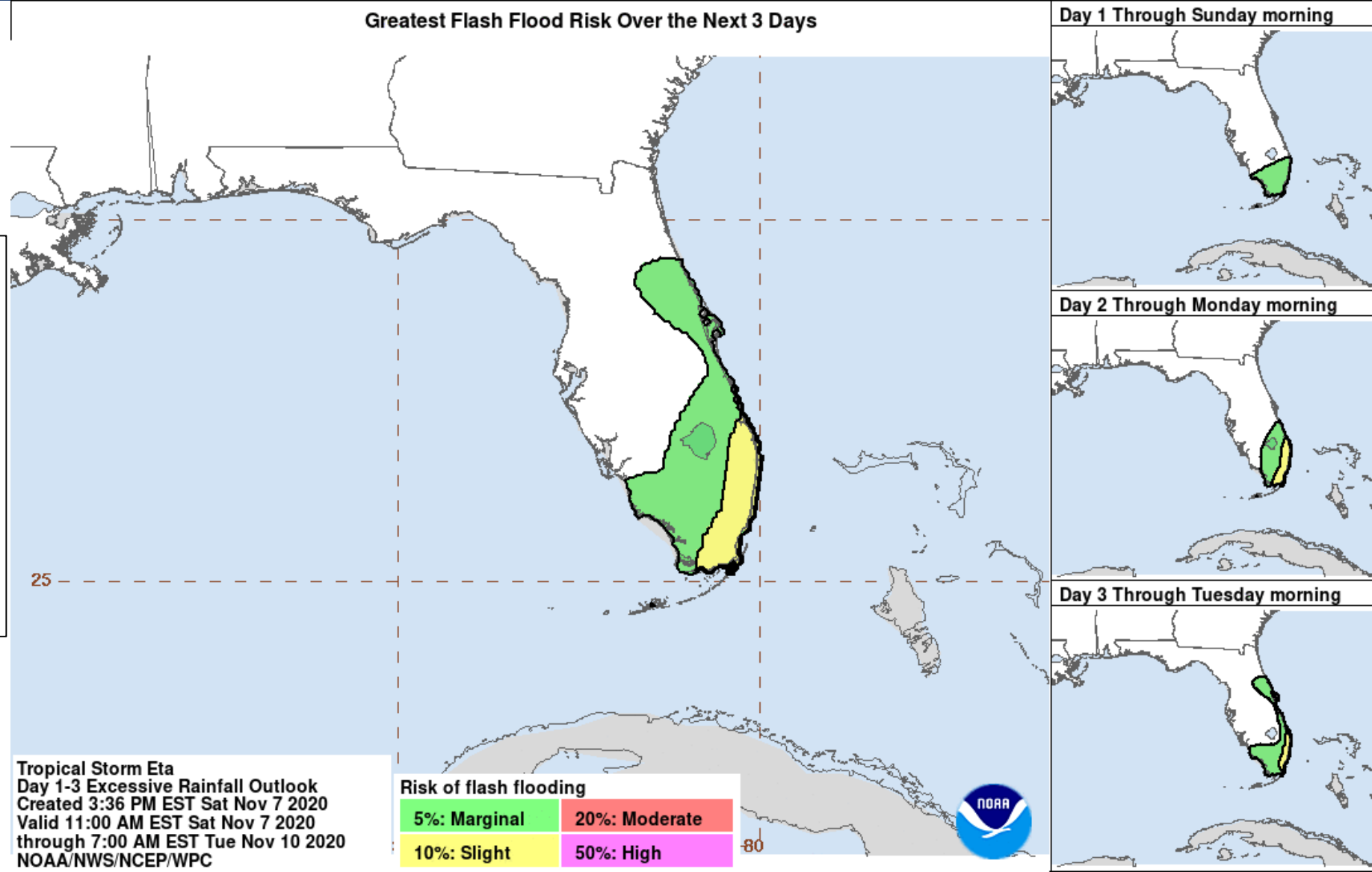
It will take about 2-4" of rain within 1 hour or 3-5" of rain within 6 hours to cause flash flooding in these areas.



Flash Flood Outlook

3-Day Event Summary

Recent heavy rainfall and additional heavy rainfall could lead to flash flooding across South and East Central Florida. The highest threat is along the Treasure Coast into the metro areas of Southeast Florida.



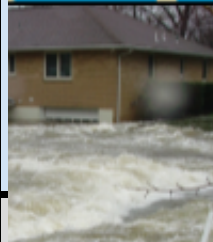




Flash Flood Risk Categories

Understanding the Weather Prediction Center Risk Scale

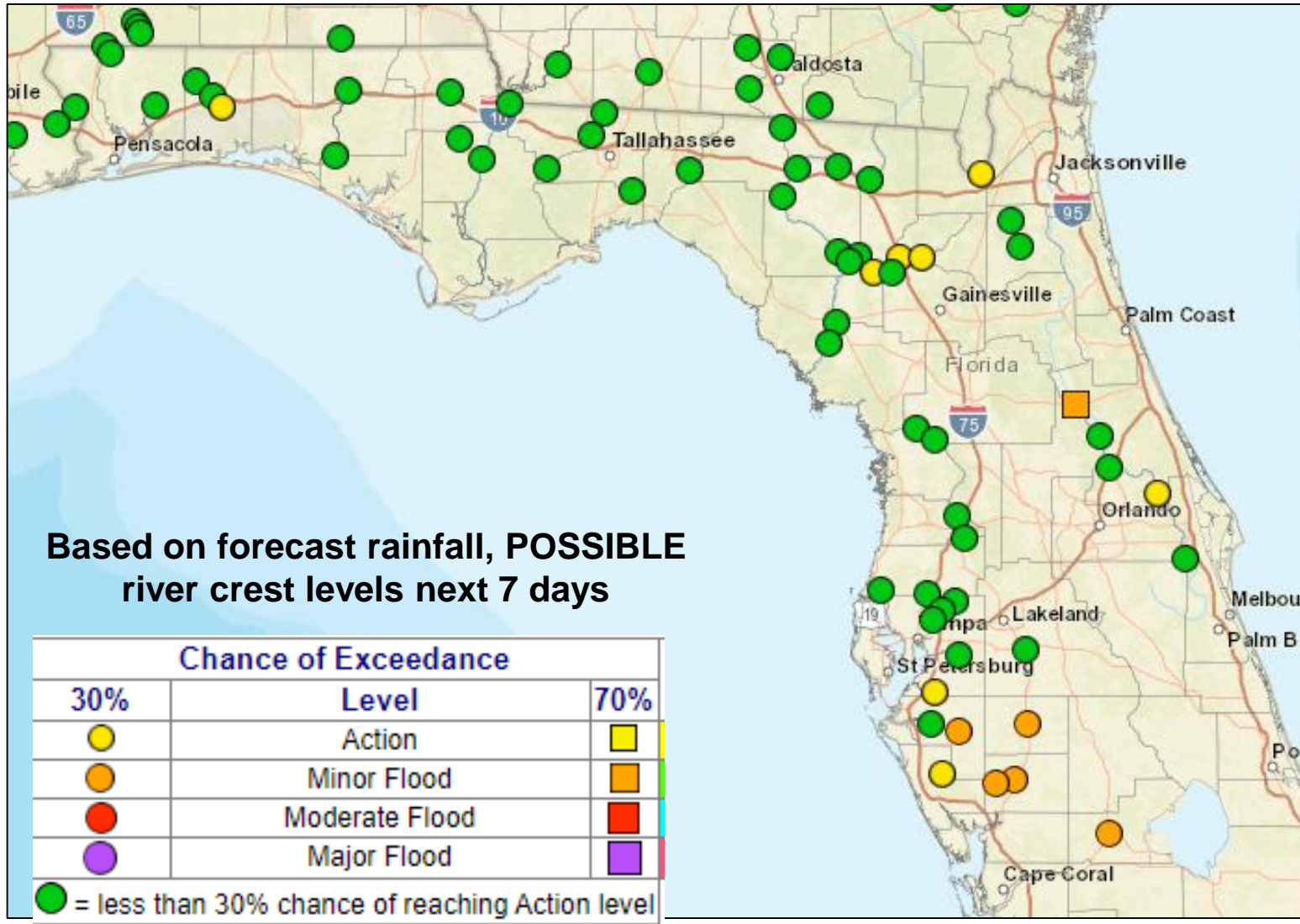
Understanding WPC Excessive Rainfall Risk Categories

<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>



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. Myakka and Peace Rivers as well the Horse and Fisheating Creeks have about a 1 in 3 chance of reaching minor flood. The St. Johns River at Astor remains in minor flood through the next 5 days.



Damaging Wind Threat Overview

Tropical Storm Eta

The greatest wind threat is across the Florida Keys and the coastal areas of far southern Florida. Sustained winds of 55-70 mph are possible in these areas with gusts of 75-80 mph possible.

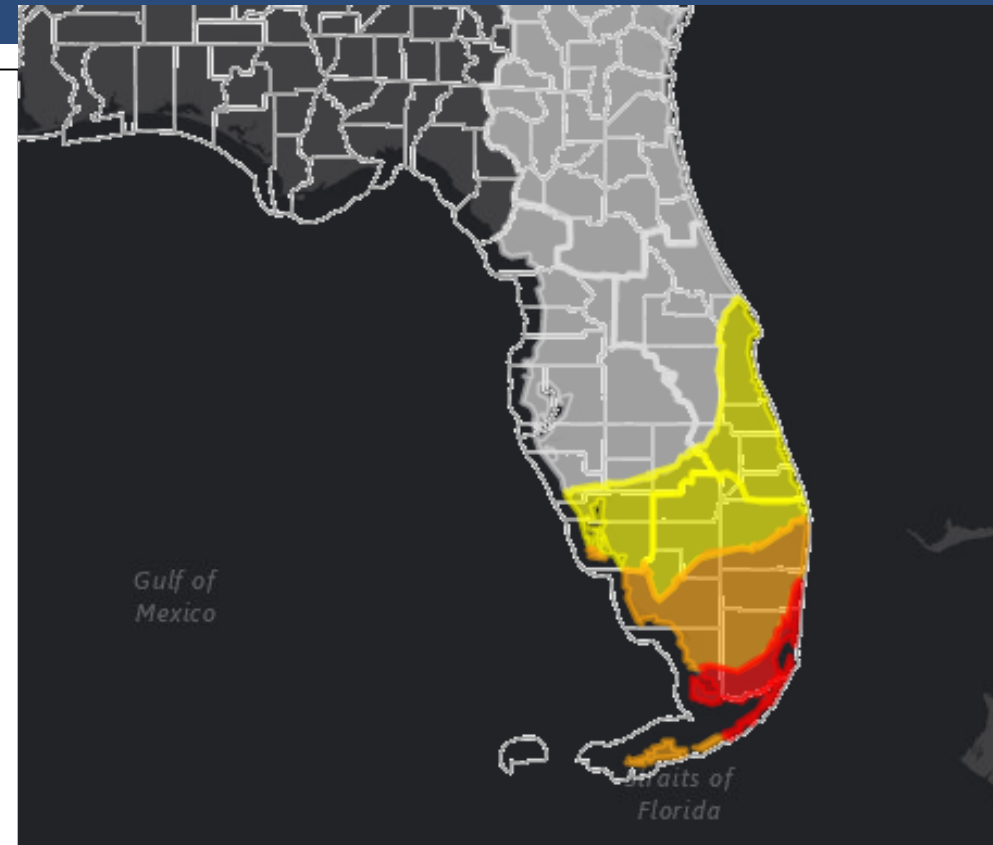
Across South Florida (south of Lake Okeechobee), sustained winds of 50-60 mph are expected with wind gusts of 60-70 mph possible, especially in the heavy squalls.

Sustained winds of 35-45 mph with gusts of 50-55 mph are possible from Port Charlotte to Titusville southward.

Saturated soils, especially along the Treasure Coast through the Keys make trees and power lines more susceptible to wind damage.

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

Click on “Threats and Impacts” Tab



[\[Download KML\]](#)

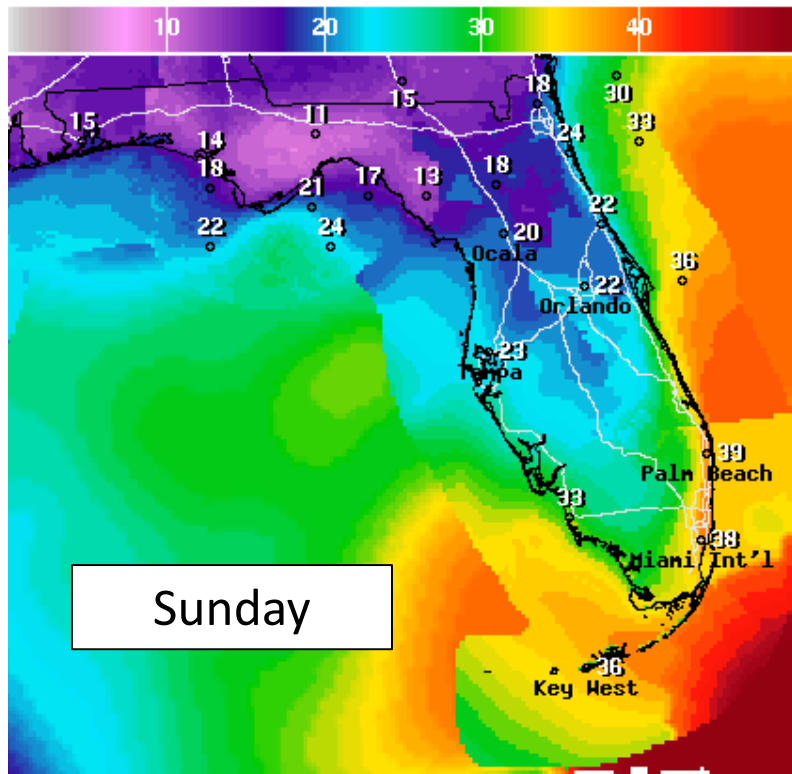
[\[Download Image\]](#)

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



Forecast Wind Gusts

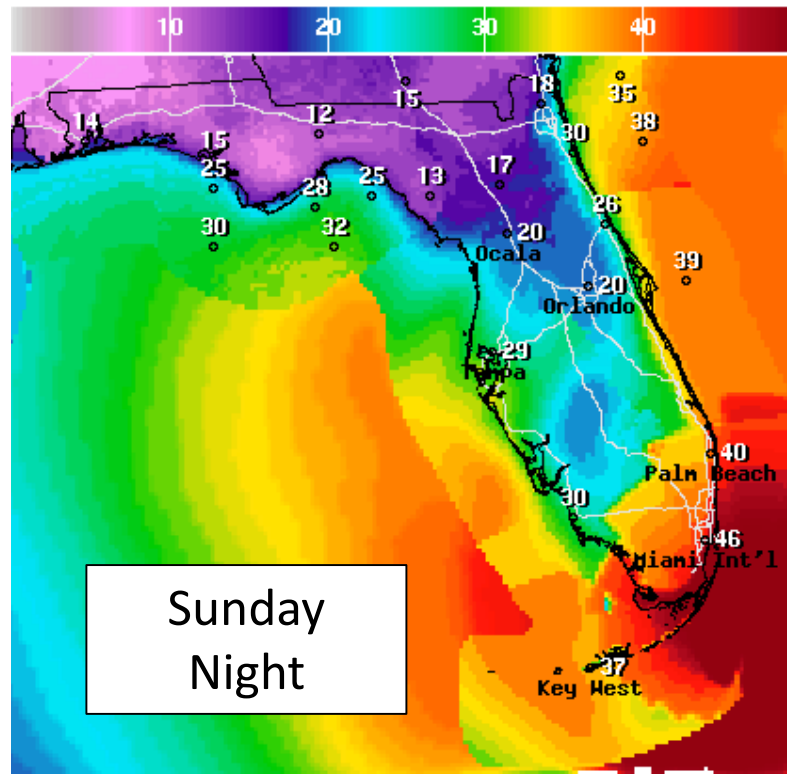
Through Early Next Week



Wind Gust(Kts) Sun Nov 08 2020 4PM EST
(Sun Nov 08 2020 21Z)



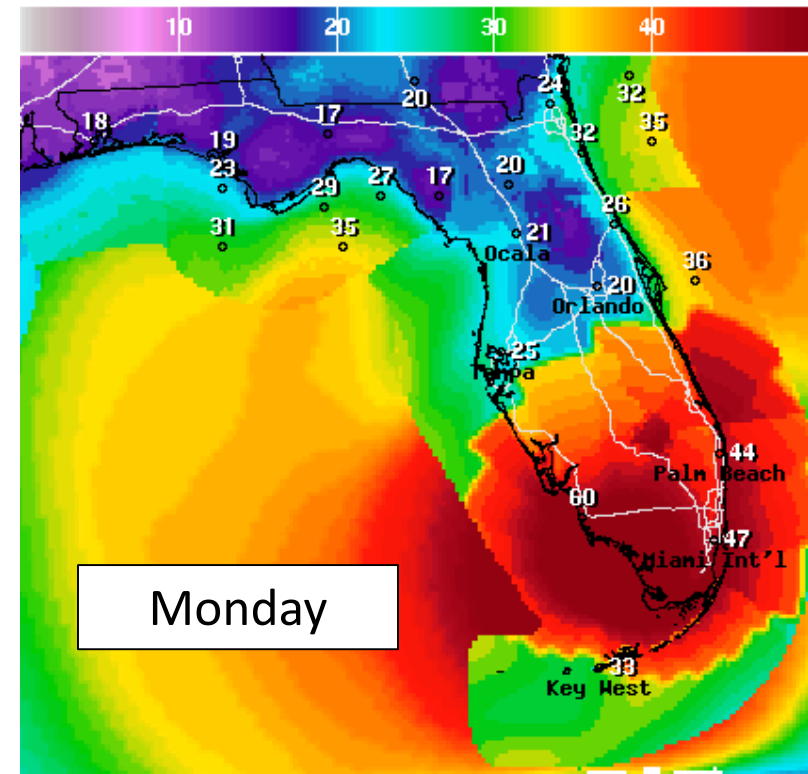
National Digital Forecast Database
19z issuance Graphic created-Nov 07 2:47PM EST



Wind Gust(Kts) Mon Nov 09 2020 4AM EST
(Mon Nov 09 2020 09Z)



National Digital Forecast Database
19z issuance Graphic created-Nov 07 2:48PM EST



Wind Gust(Kts) Mon Nov 09 2020 4PM EST
(Mon Nov 09 2020 21Z)



National Digital Forecast Database
19z issuance Graphic created-Nov 07 2:48PM EST



Windy conditions are possible along coastal Southeast Florida and the Keys. Tropical-storm-force wind gusts could start tomorrow in coastal Southeast Florida and the Keys, especially in rain bands, but sustained tropical-storm-force winds would likely begin Sunday night. Wind gusts will continue to increase Sunday into Monday as Eta passes near or over the Keys or South Florida.



Wind Watches and Warnings

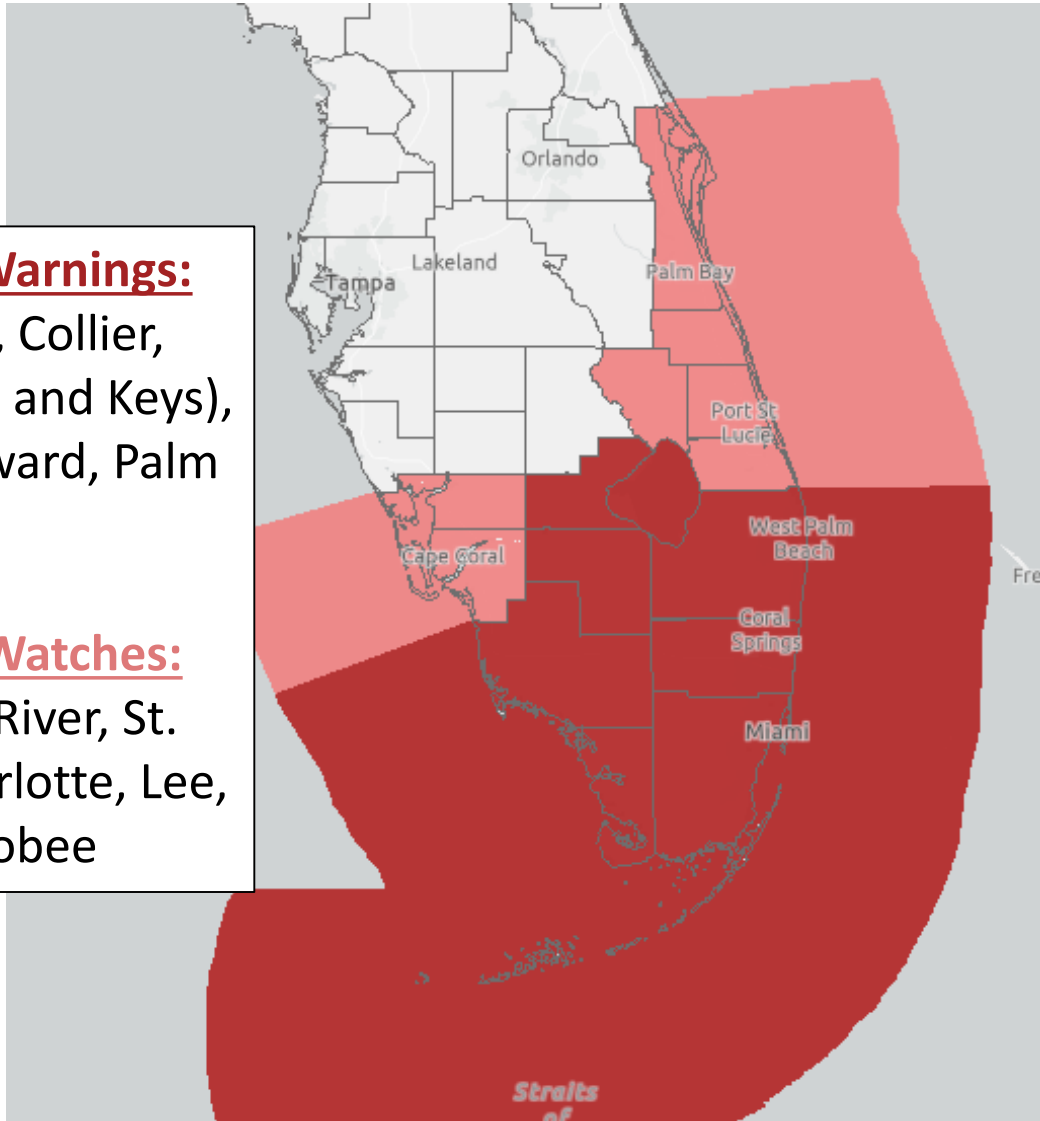
In Effect Until Further Notice

Tropical Storm Warnings:

Glades, Hendry, Collier, Monroe (mainland and Keys), Miami-Dade, Broward, Palm Beach

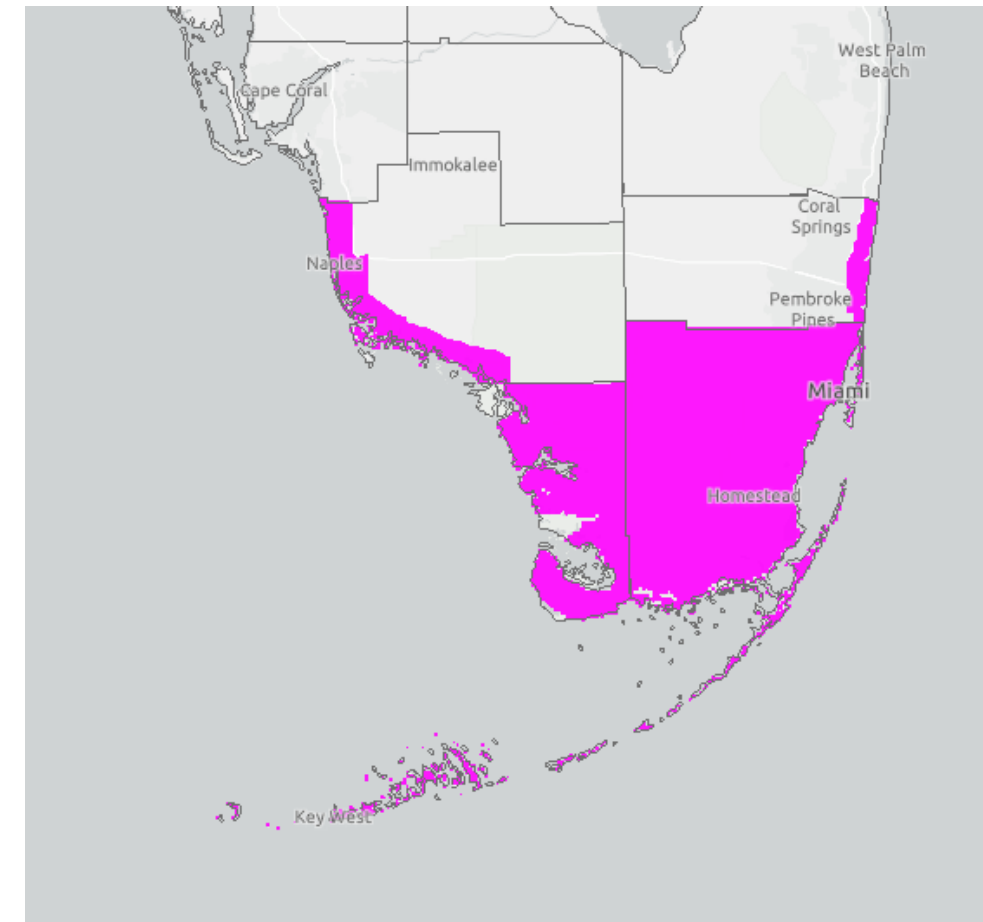
Tropical Storm Watches:

Brevard, Indian River, St. Lucie, Martin, Charlotte, Lee, and Okeechobee



Hurricane Watch:

Coastal Collier, coastal Broward, Miami-Dade, Monroe (Keys and Mainland)





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



Storm Surge Threat Overview

Tropical Storm Eta

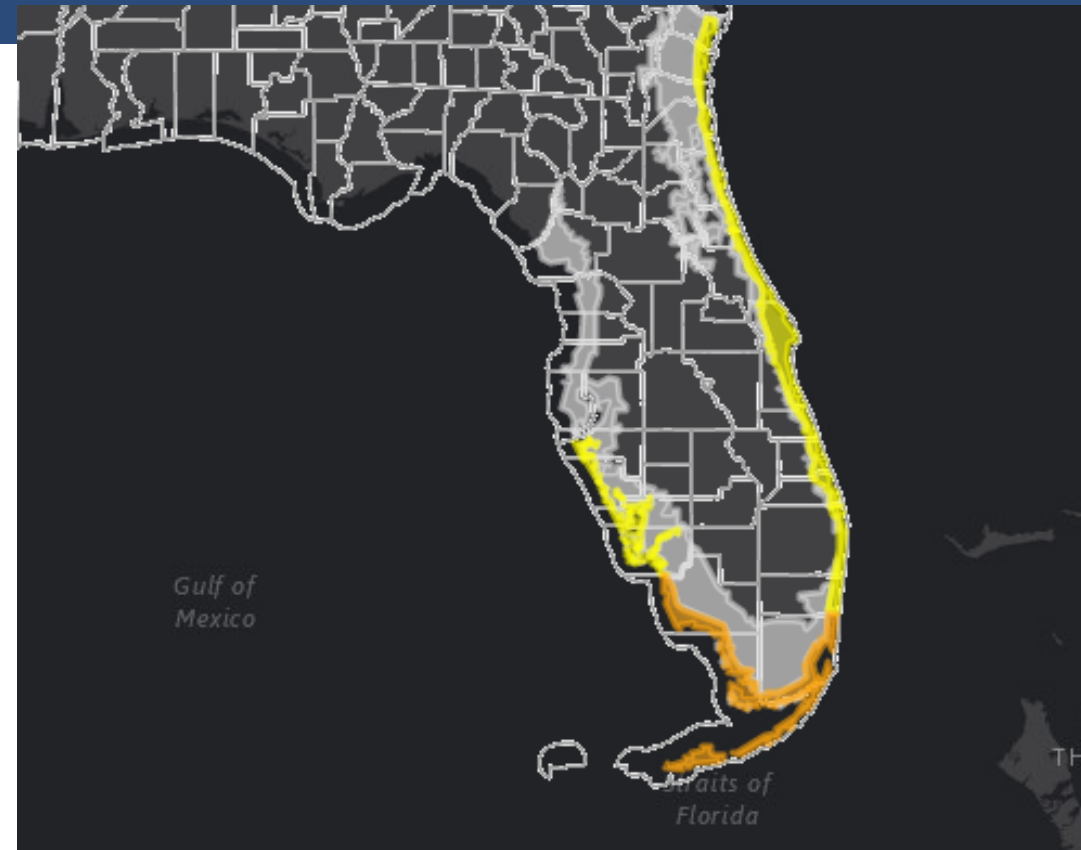
The greatest storm surge threat will be across South Florida and the Keys, where 2-4' of storm surge is forecast

Current forecasts call for 1-3 feet of storm surge possible along the East Coast from Broward County northward and along the West Coast from Manatee through Lee Counties.

Tides are already running about 1' above normal in the Keys, which has resulted in some nuisance to minor flooding.

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

Click on "Threats and Impacts" Tab



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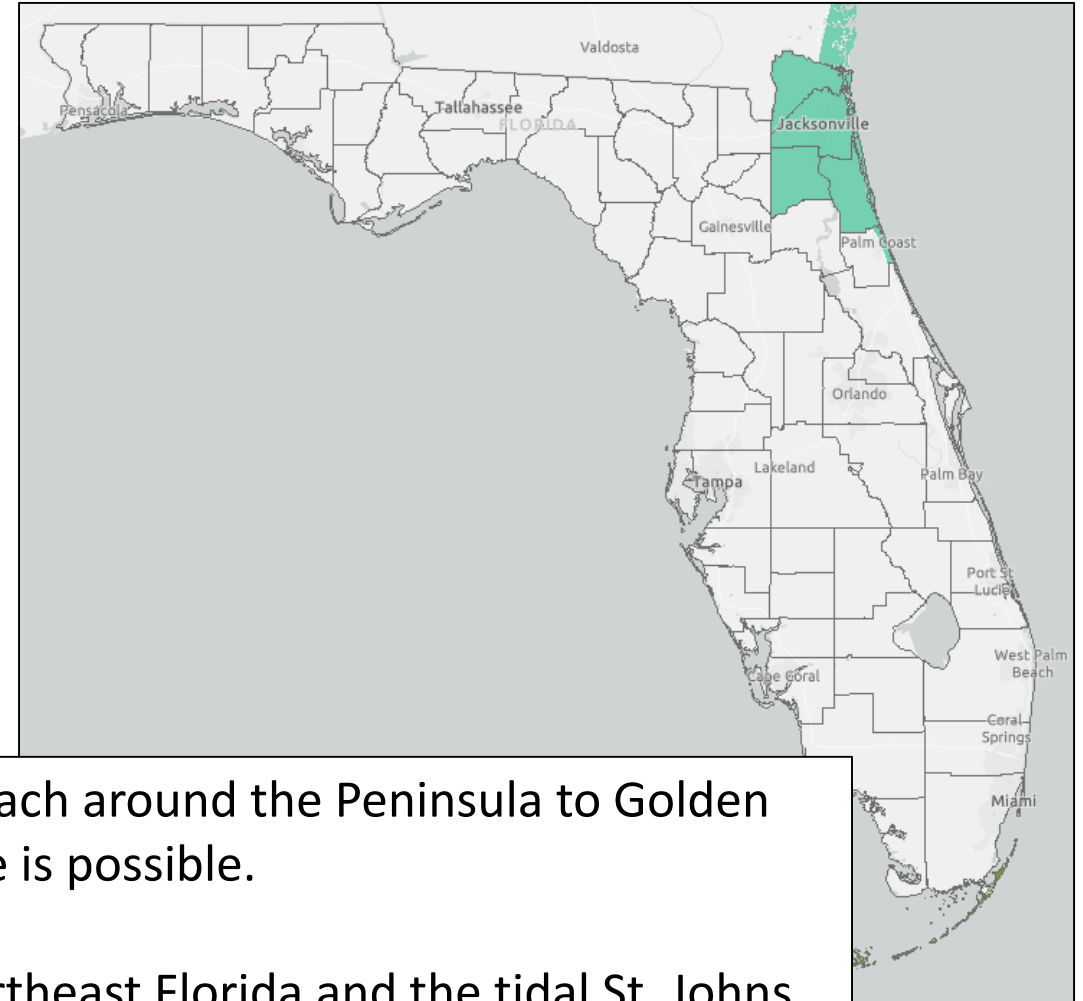
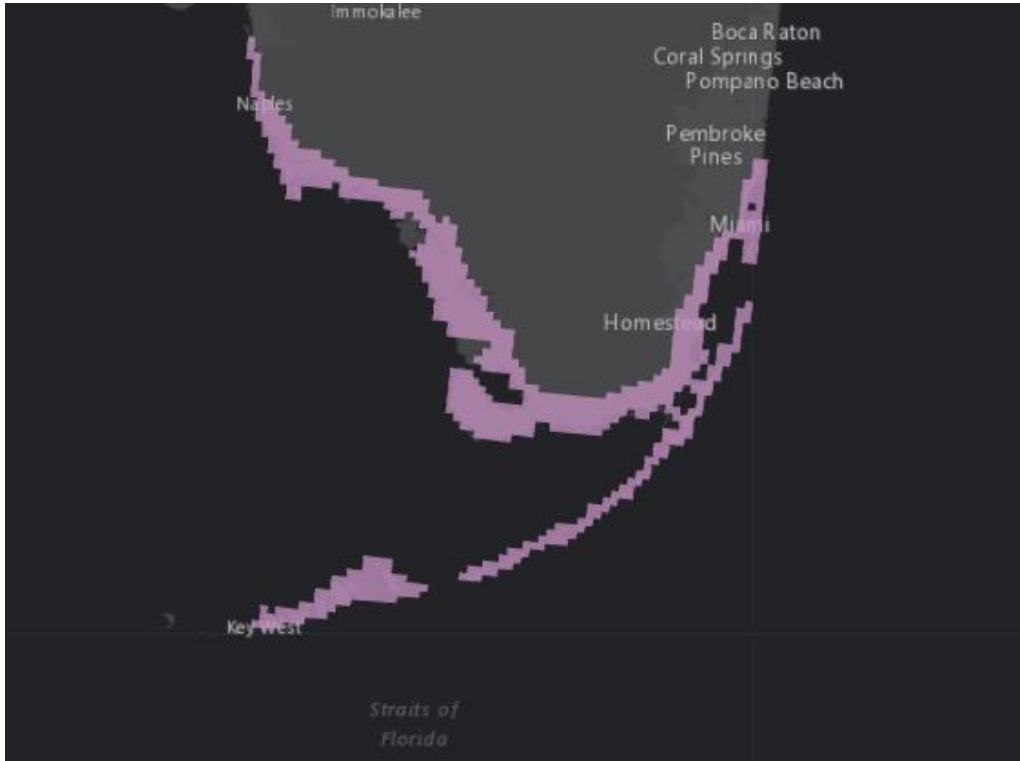
[\[Download Image\]](#)

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

Tropical Storm Eta



Storm Surge Watches are now in effect from Bonita Beach around the Peninsula to Golden Beach and through the Florida Keys. 2-4' of storm surge is possible.

Coastal Flood Watches are also in effect for coastal Northeast Florida and the tidal St. Johns River along the Clay/St. Johns Line. Significant coastal flooding is possible.

A graphic with a pink and purple background showing a storm surge. The text "Storm Surge Warning" is prominently displayed at the top. Below it, a white box contains text about the danger of life-threatening inundation within 36 hours and instructions to follow evacuation orders. The NOAA logo is in the bottom right corner.

Storm Surge Warning

There is a **danger of life-threatening inundation** from rising water moving inland from the shoreline generally **within 36 hours**.

Promptly follow evacuation and other instructions from local officials.

A graphic with a purple and blue background showing a storm surge. The text "Storm Surge Watch" is prominently displayed at the top. Below it, a white box contains text about the possibility of life-threatening inundation within 48 hours and instructions to follow evacuation orders. The NOAA logo is in the bottom right corner.

Storm Surge Watch

There is a **possibility of life-threatening inundation** from rising water moving inland from the shoreline generally **within 48 hours**.

Promptly follow evacuation and other instructions from local officials.





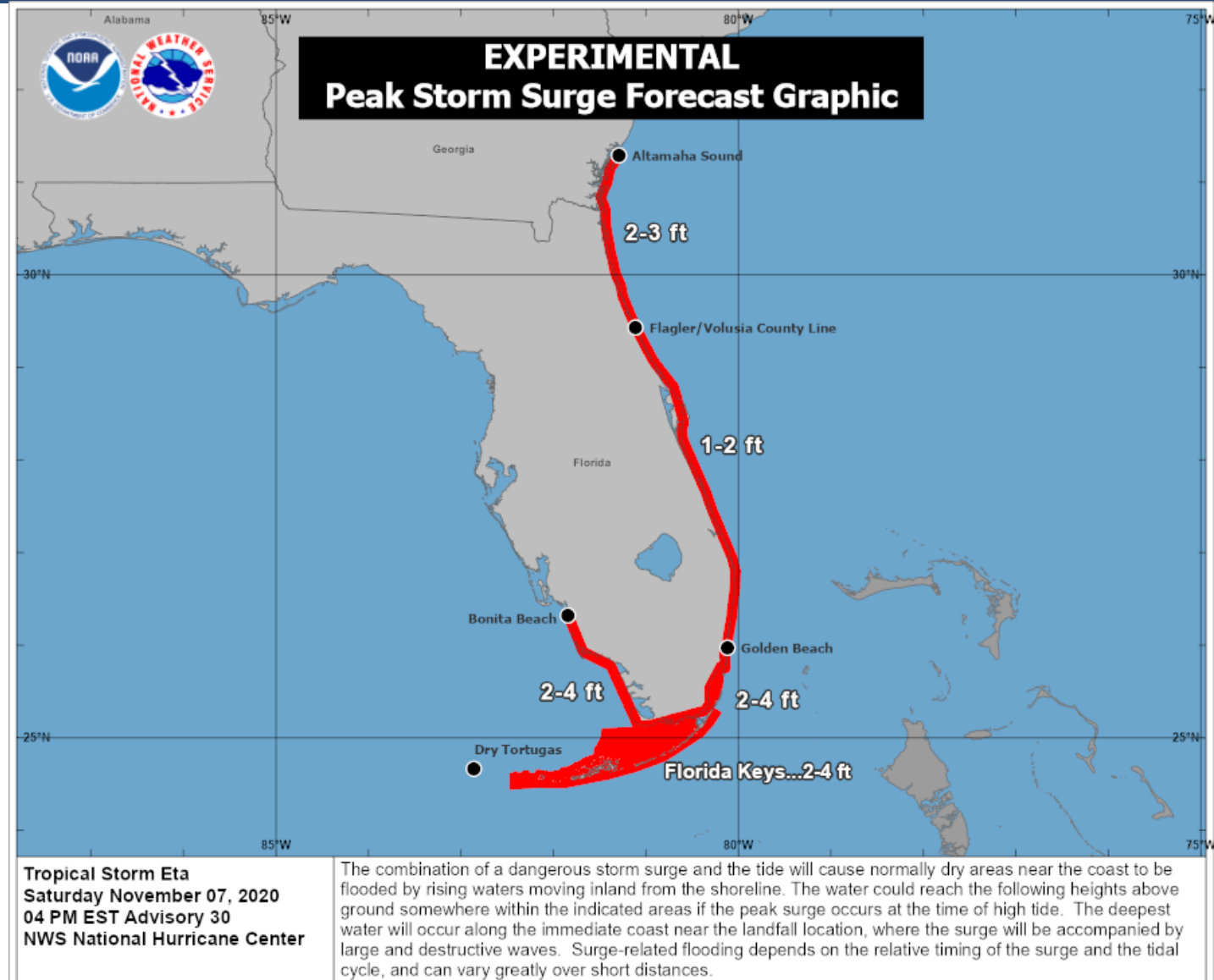
Storm Surge/Coastal Flooding

Tropical Storm Eta

The highest storm surge will be along coastal South Florida and the Florida Keys where 2-4' of storm surge is possible.

Along Northeast Florida, 2-3 feet of storm surge is possible. This also includes the tidal St. Johns River.

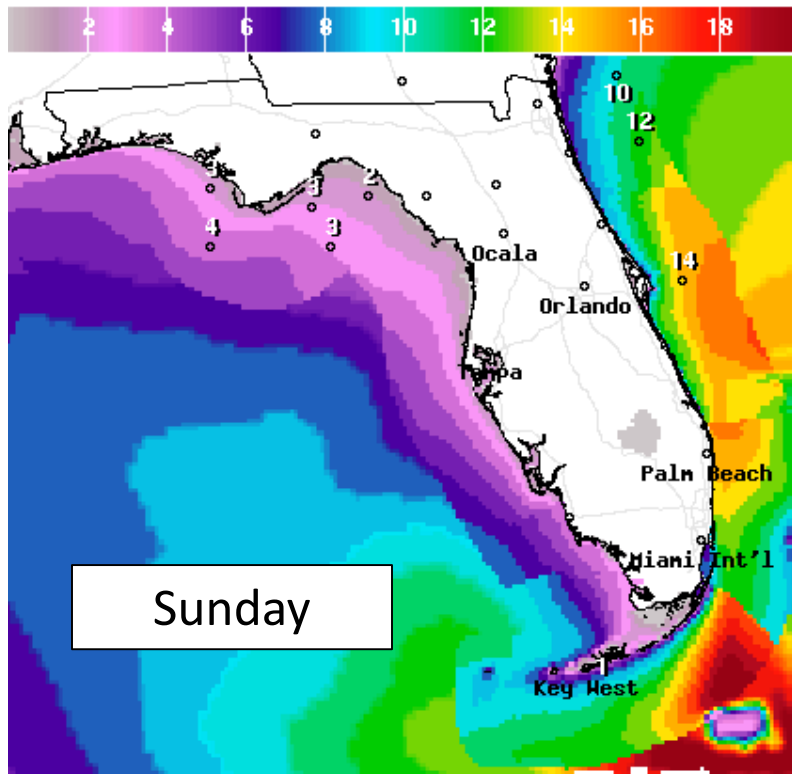
The East Coast from the Flagler/Volusia County Line to Golden Beach could see 1-2' of storm surge.





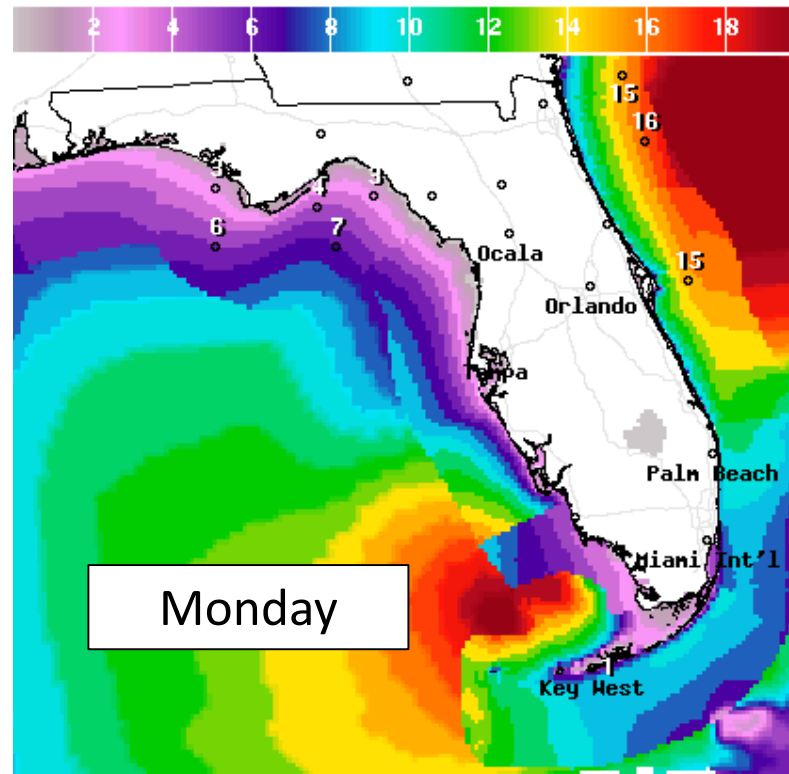
Forecast Wave Heights

Through Early Next Week



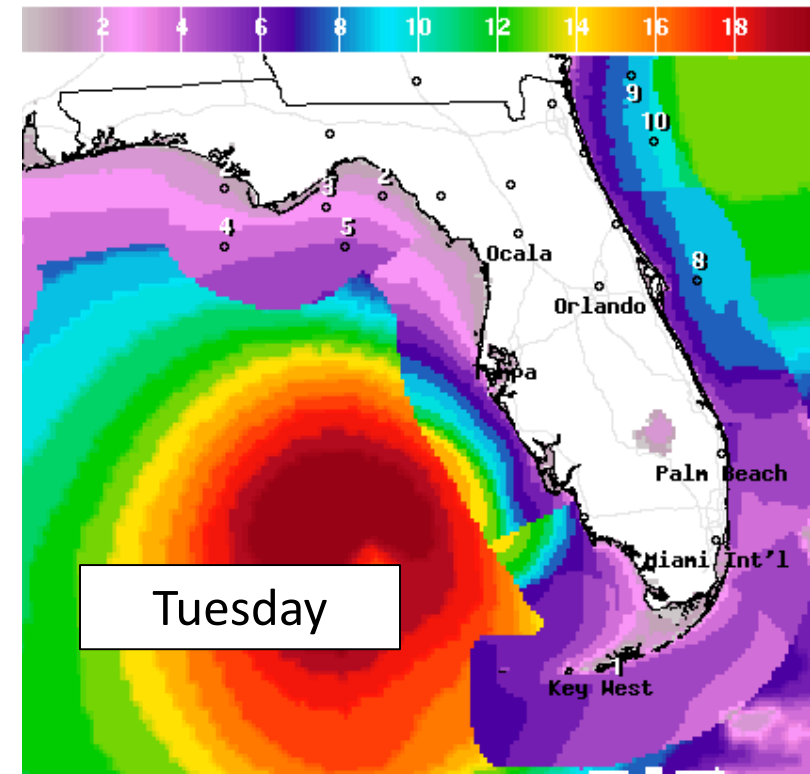
Sunday

Wave Height(ft) Ending Sun Nov 08 2020 7PM EST
(Mon Nov 09 2020 00Z)
National Digital Forecast Database
19z issuance Graphic created-Nov 07 2:27PM EST



Monday

Wave Height(ft) Ending Mon Nov 09 2020 7PM EST
(Tue Nov 10 2020 00Z)
National Digital Forecast Database
19z issuance Graphic created-Nov 07 2:28PM EST



Tuesday

Wave Height(ft) Ending Tue Nov 10 2020 7PM EST
(Wed Nov 11 2020 00Z)
National Digital Forecast Database
19z issuance Graphic created-Nov 07 2:28PM EST

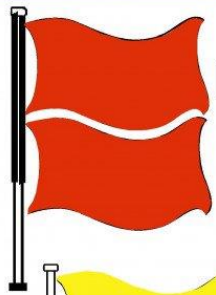
High surf of 7-13 feet will be possible along the East Coast, especially Sunday and Monday. Waves will begin to build in the Gulf later this weekend into next week. Significant beach erosion and dune overwash is possible at many beaches into next week.



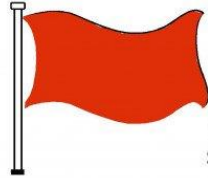
Rip Current Outlook

Today

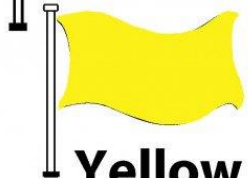
BEACH FLAG WARNING SYSTEM



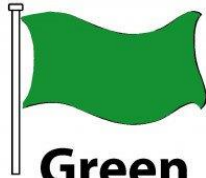
Double Red
Water Closed to
Public Use



Red
High Hazard
(rough conditions,
such as strong surf
and or currents)



Yellow
Medium Hazard
(light surf and or
currents)

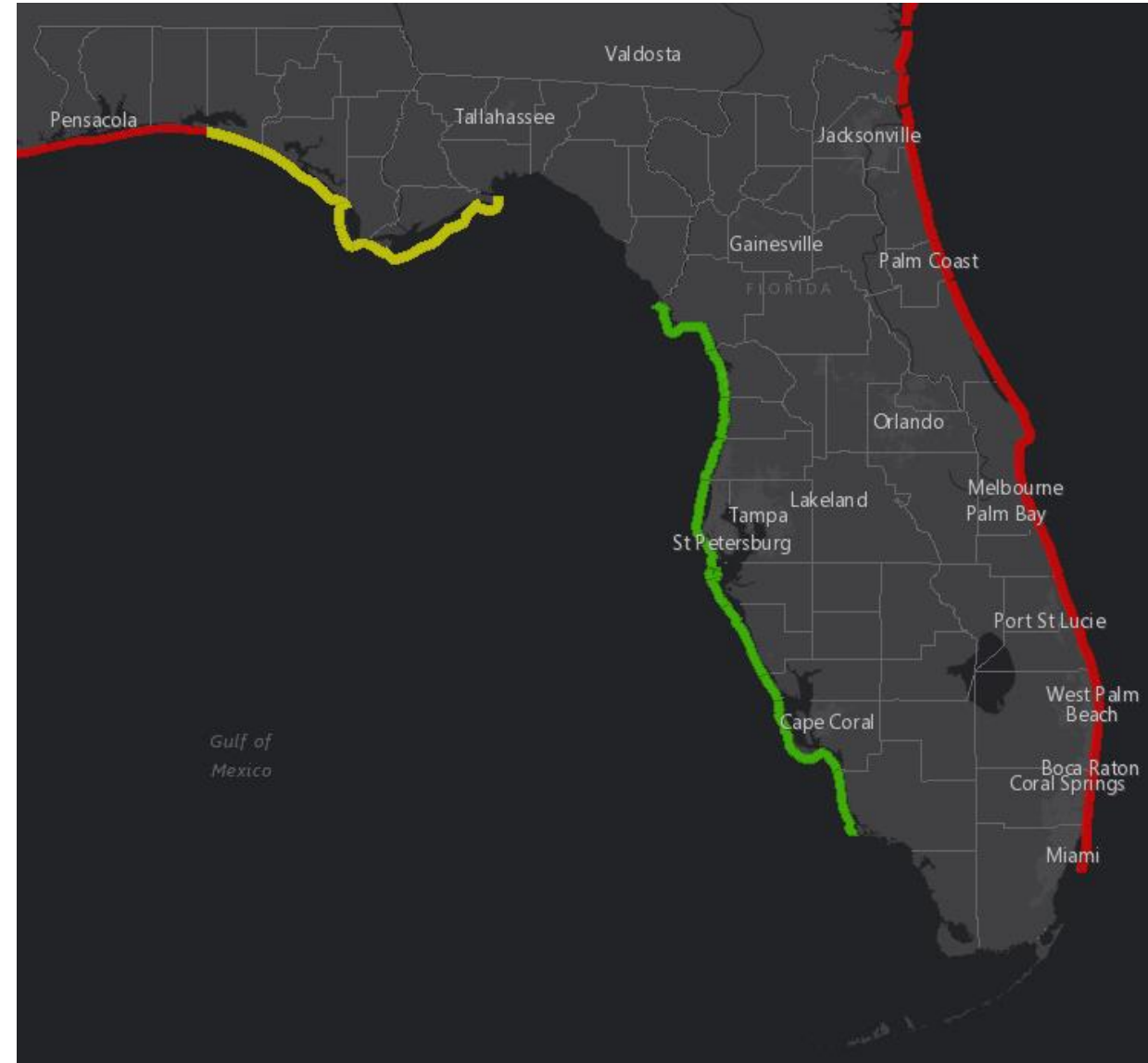


Green
Low Hazard
(calm conditions)



Purple
Marine Pest
(jellyfish, stingrays
& dangerous fish)

Dangerous rip currents continue due to strong easterly winds and rough surf.



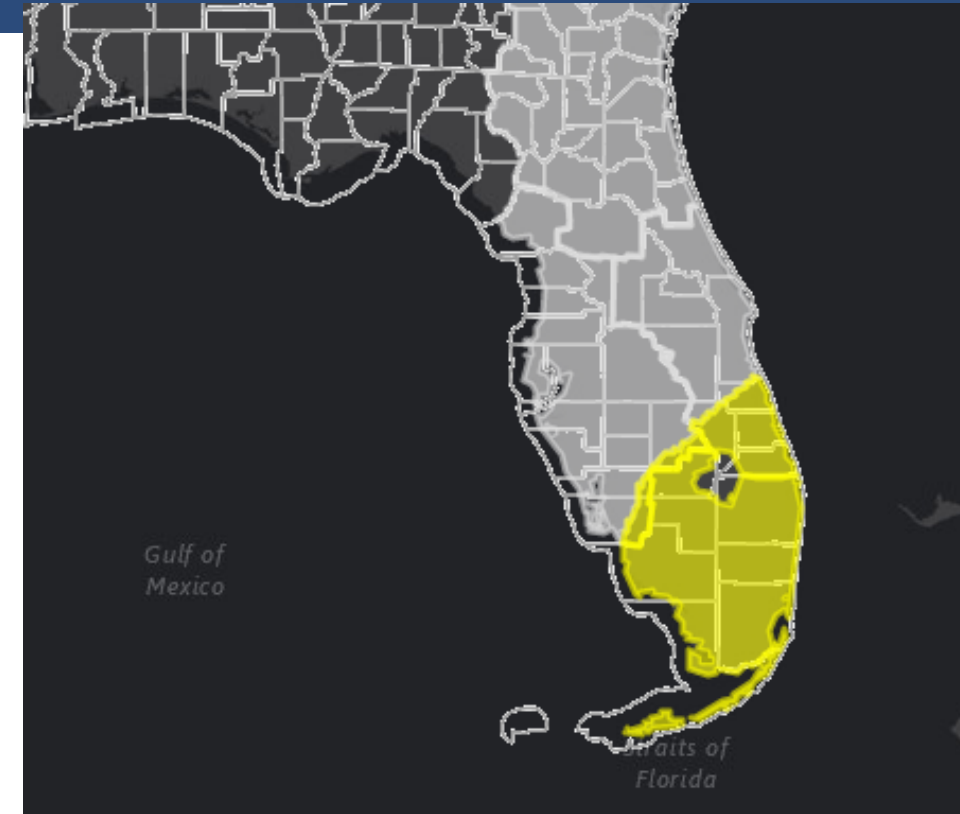


Tornado Threat Overview

Tropical Storm Eta

The greatest tornado threat is across South Florida and the Florida Keys, mainly Sunday, Monday, and possibly Tuesday.

Isolated tornadoes are possible in the outer rain bands of Tropical Storm Eta.



[\[Download KML\]](#)

[\[Download Image\]](#)

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

Click on “Threats and Impacts” Tab

Tornado Threat
Potential for outbreak of tornadoes
Potential for many tornadoes
Potential for several tornadoes
Potential for a few tornadoes
Tornadoes not expected



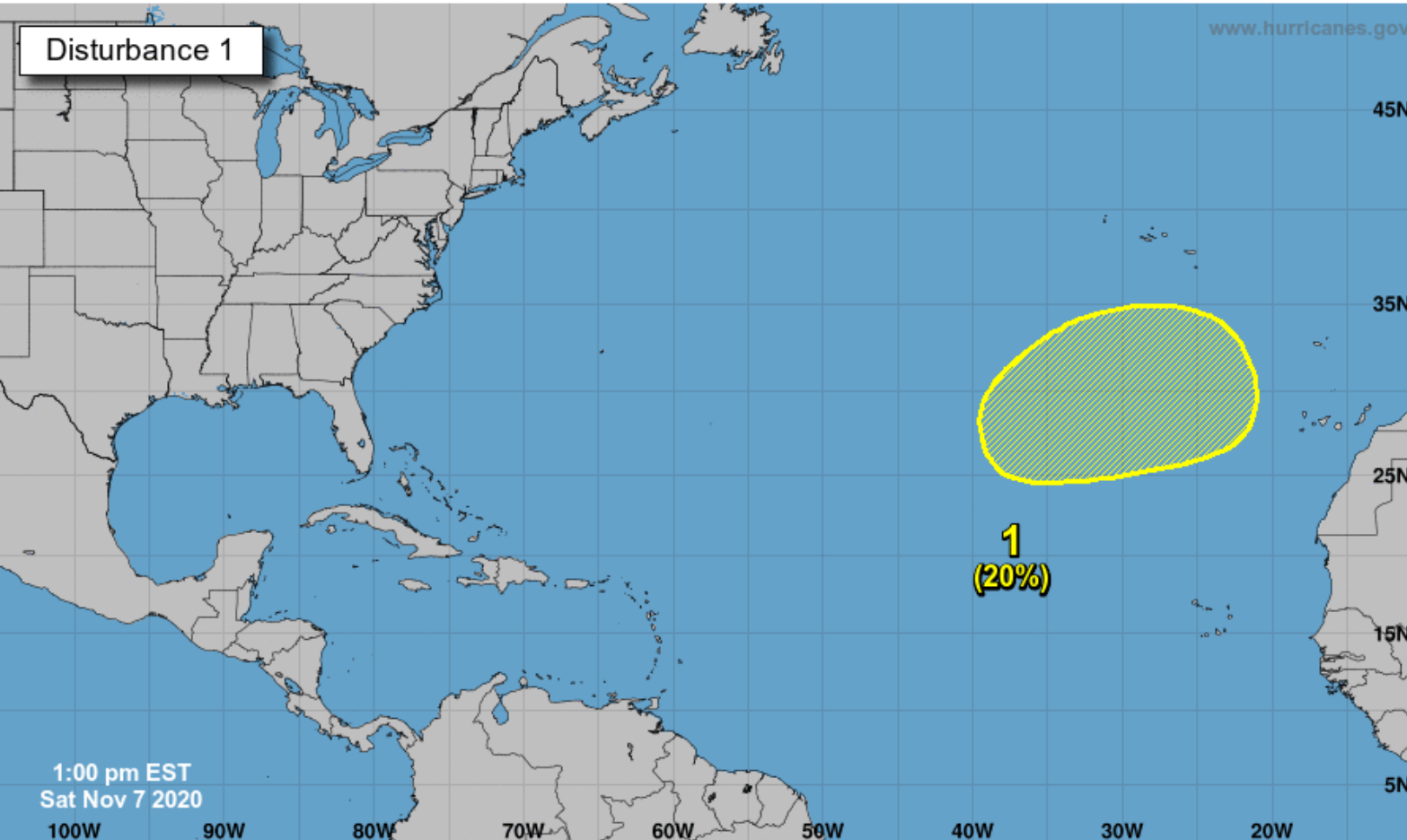
Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



A broad non-tropical low pressure system could form several hundred miles southwest of the Azores early next week.

Any subtropical development of this system is expected to be slow to occur while it moves generally eastward over the northeastern Atlantic Ocean through the middle of next week.

***Formation chance through 48 hours...low...near 0%.**

***Formation chance through 5 days...low...20%.**

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

Tropical Storm Eta

- The center of Eta is located about 85 miles north-northeast of Grand Cayman, moving northeast at 16 mph.
- Maximum sustained winds are near 60 mph, and additional strengthening is expected through Sunday night. Eta could be near hurricane strength as it approaches Florida.
- Eta will move over Cuba tonight and be near the Florida Keys and South Florida by late Sunday night or early Monday morning.
- Eta will turn westward into the Gulf of Mexico early next week, then turn northward over the eastern Gulf of Mexico or near the West Coast during the middle of next week.
- The forecast in the Gulf of Mexico remains highly uncertain, but areas farther north in the state should continue to monitor.



Florida Outlook

Florida Outlook:

- **It is important to NOT focus on the exact track of Eta. Impacts will extend well beyond the cone away from the center.**
- 7-day rainfall totals could approach a widespread 5-10" with localized totals of 15"+ in South Florida and the Keys. Northward to the I-4 corridor, rainfall totals of 2-4" with localized totals of 6-8" are possible.
- Flood Watches are in effect for all of South Florida, the Treasure Coast, and Okeechobee County.
- **Hurricane Watches:** coastal Broward, all of Miami-Dade, coastal Collier, and all of Monroe (Keys and Mainland)
- **Tropical Storm Warnings:** Glades, Hendry, Collier, Monroe (Keys and Mainland), Miami-Dade, Broward, Palm Beach
- **Tropical Storm Watches:** Okeechobee, Martin, St. Lucie, Indian River, Lee, Charlotte, and Brevard
- Tropical-storm-force winds will likely begin Sunday night across the Keys and South Florida, then along the West Coast on Monday. If tropical-storm-force winds occur in the Big Bend and Nature Coast, it would be Tuesday into Wednesday
- Sustained winds of 55-70 mph with gusts of 75-80 mph will be possible in the Keys and coastal parts of South Florida. Sustained winds of 50-60 mph with gusts of 60-70 mph near and south of Lake Okeechobee. Sustained winds of 35-45 mph with gusts of 50-55 mph are possible from Port Charlotte to Titusville southward to Lake Okeechobee.
- Saturated soils make trees and power lines more susceptible to wind damage.
- **Storm Surge Watches:** Miami-Dade, Collier, Monroe (Keys and Mainland)
- 2-4' of storm surge is expected along coastal South Florida and the Florida Keys.
- Isolated tornadoes will also be possible in any of the outer bands, possibly beginning Sunday across South Florida and the Keys, spreading northward into early next week.
- Beach erosion and dangerous rip currents from very high surf are expected along the East Coast.
- This system could impact other parts of the state farther north. However, details there become highly uncertain.

The next tropics packet will be issued Sunday morning with the 10AM 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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