



# TROPICAL UPDATE



8:00 AM EDT

Tuesday, October 27, 2020

Tropical Storm Zeta

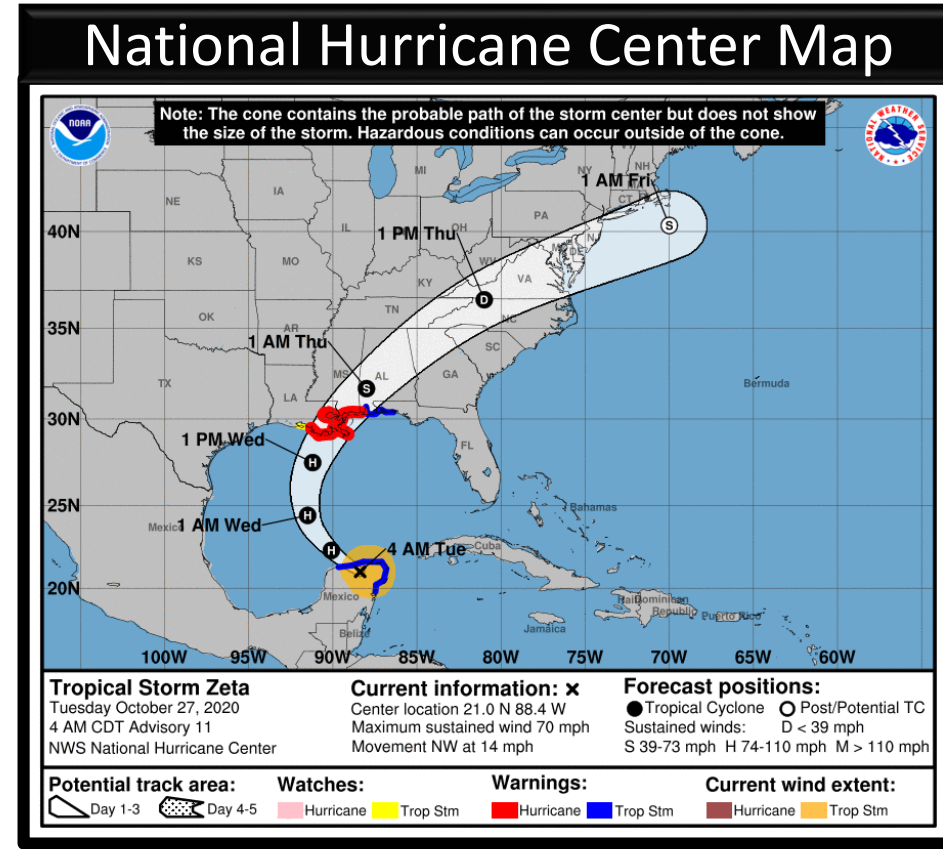
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an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



# Tropical Storm Zeta

8 AM ET Tuesday: 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:

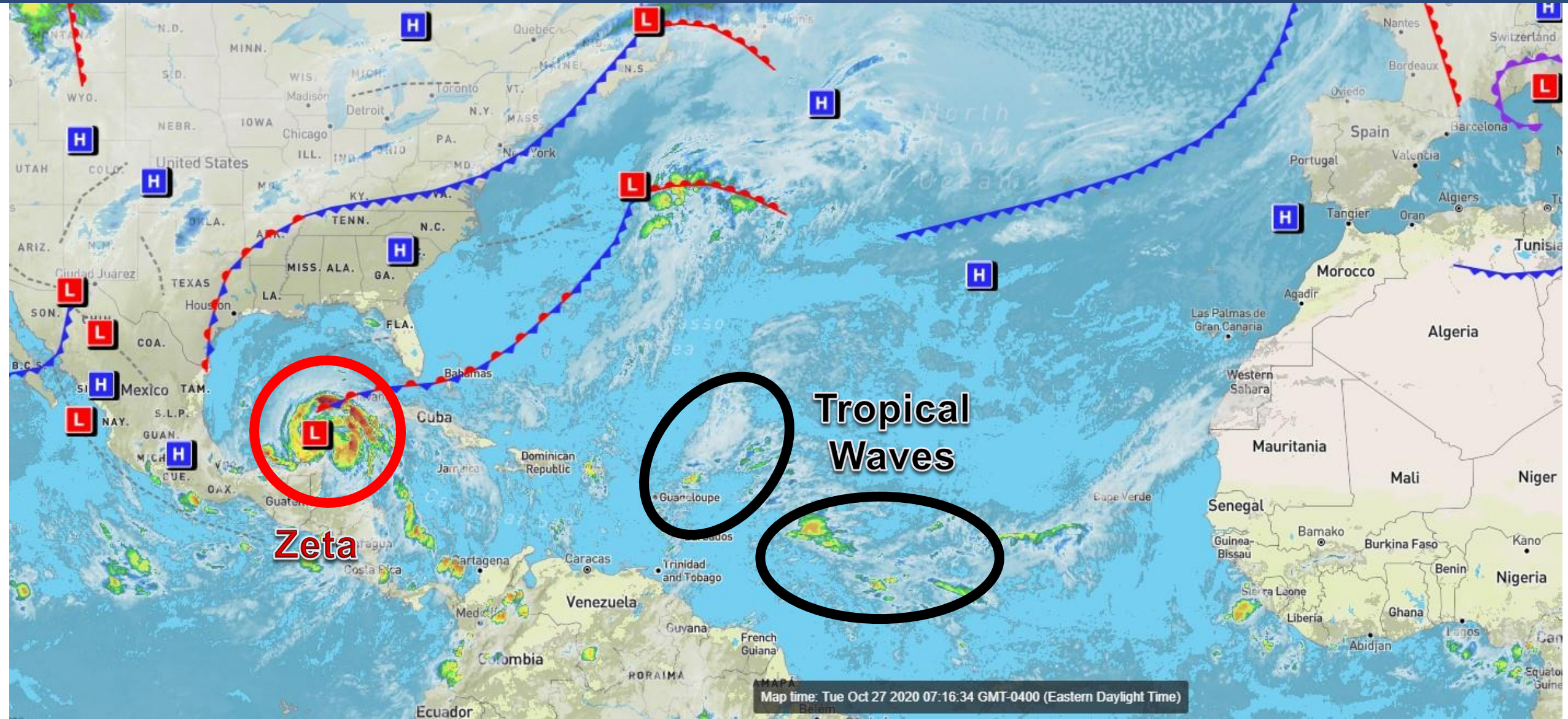
Zeta made landfall on the Yucatan Peninsula and is moving into the Gulf of Mexico where strengthening back into a hurricane is expected. There has been no change in the forecast track. Impacts will still extend well east of the center into the Panhandle Wednesday night. Tropical storm warnings and storm surge warnings have been issued for the western Panhandle.





# Atlantic Basin Satellite Image

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

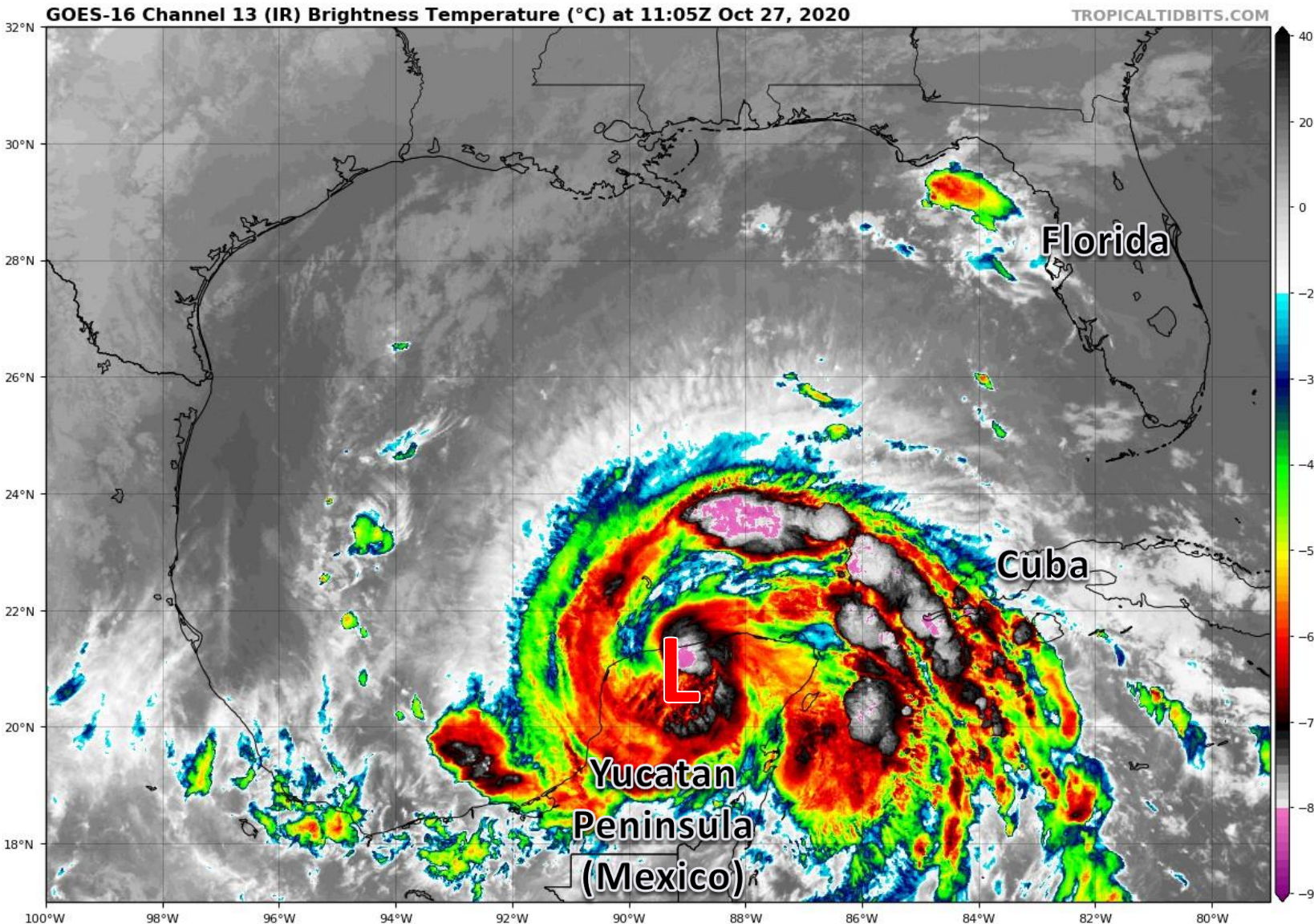




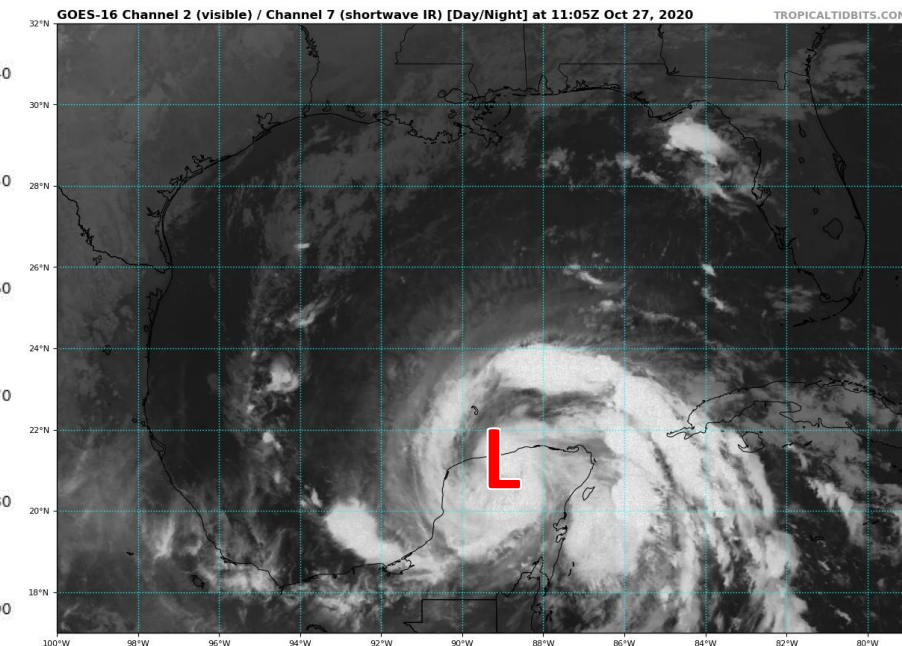


# Satellite Imagery

## Tropical Storm Zeta – Gulf of Mexico



Zeta made landfall overnight on the Yucatan Peninsula as a category 1 hurricane. It is in the process of moving into the Gulf of Mexico. The system has grown in size, with more thunderstorms well east of the center than west.

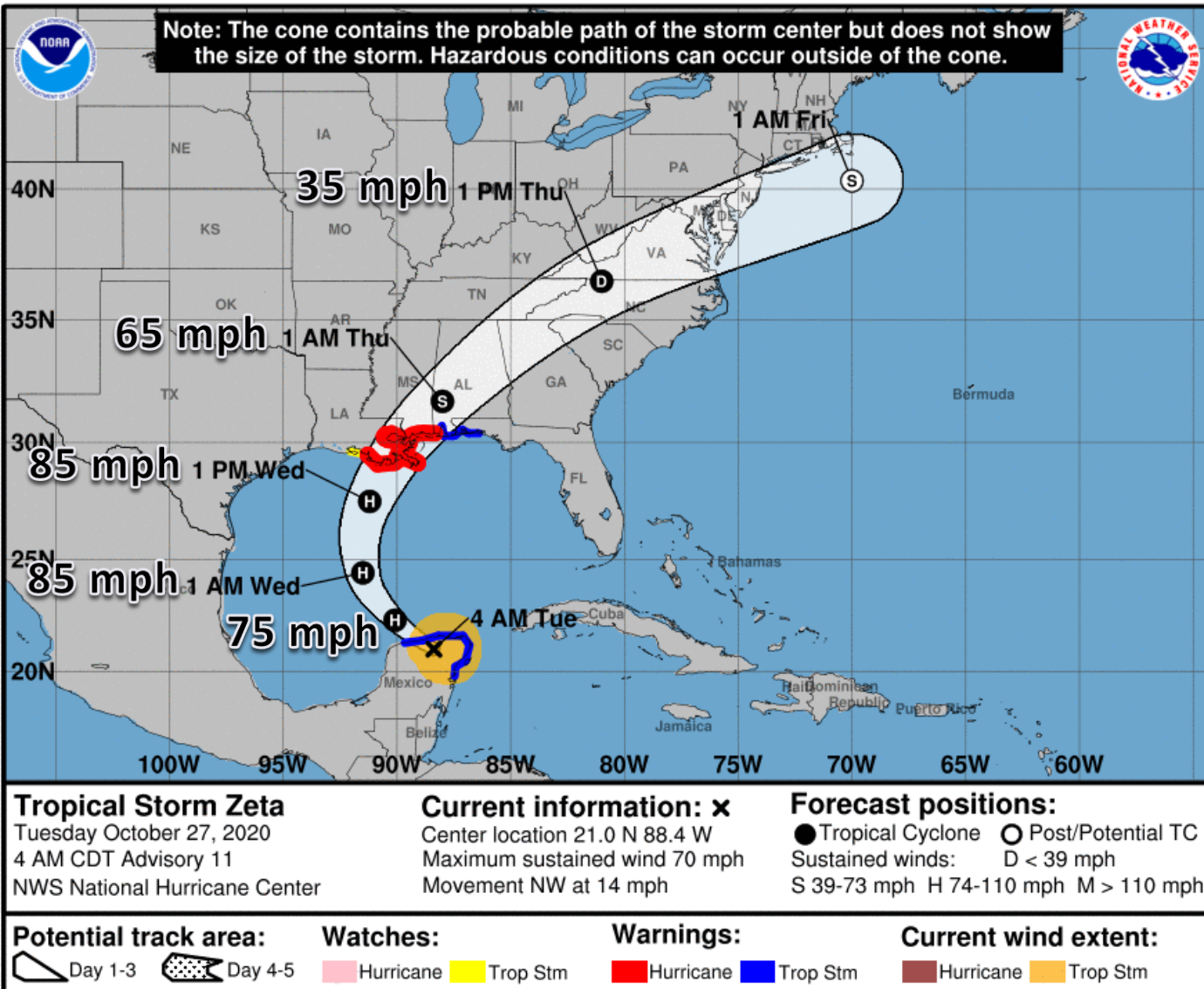






# Official Forecast Track

## From the National Hurricane Center – Tropical Storm Zeta



- The center is located over the Yucatan Peninsula, or about 600 miles south of Pensacola, Florida. Zeta is moving to the northwest at 14 mph.
- A turn towards the north and northeast is forecast on tonight and Wednesday as a cold front moves into the south and accelerates Zeta towards the Gulf Coast.
- Zeta has maximum sustained winds of 70 mph (tropical storm). However, additional rounds of strengthening are expected once the system moves back into the Gulf of Mexico.
- Zeta is forecast to be a category 1 hurricane at landfall in southeast Louisiana and Mississippi.

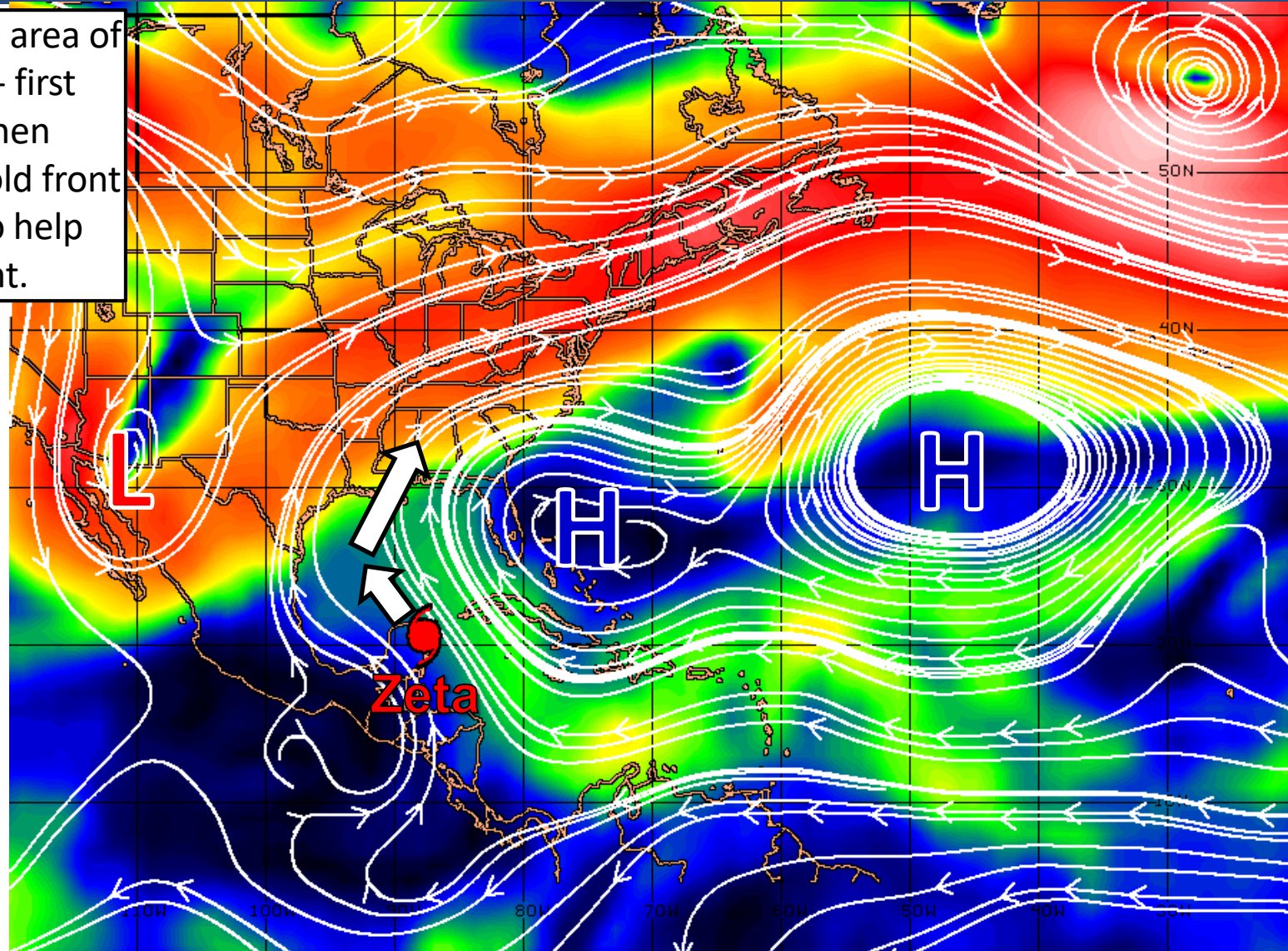


# Steering Currents

## What is Moving the Systems?

Color denotes the movement speed through the atmosphere and thin white lines denote direction. Tightly clustered white lines represent faster movement as well.

Zeta will move around a large area of high pressure near Florida- first northwest, then north, then northeast. An approaching cold front from the mid-west will also help reinforce this movement.



KTS

100

70

50

30

20

15

10

5

0

Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

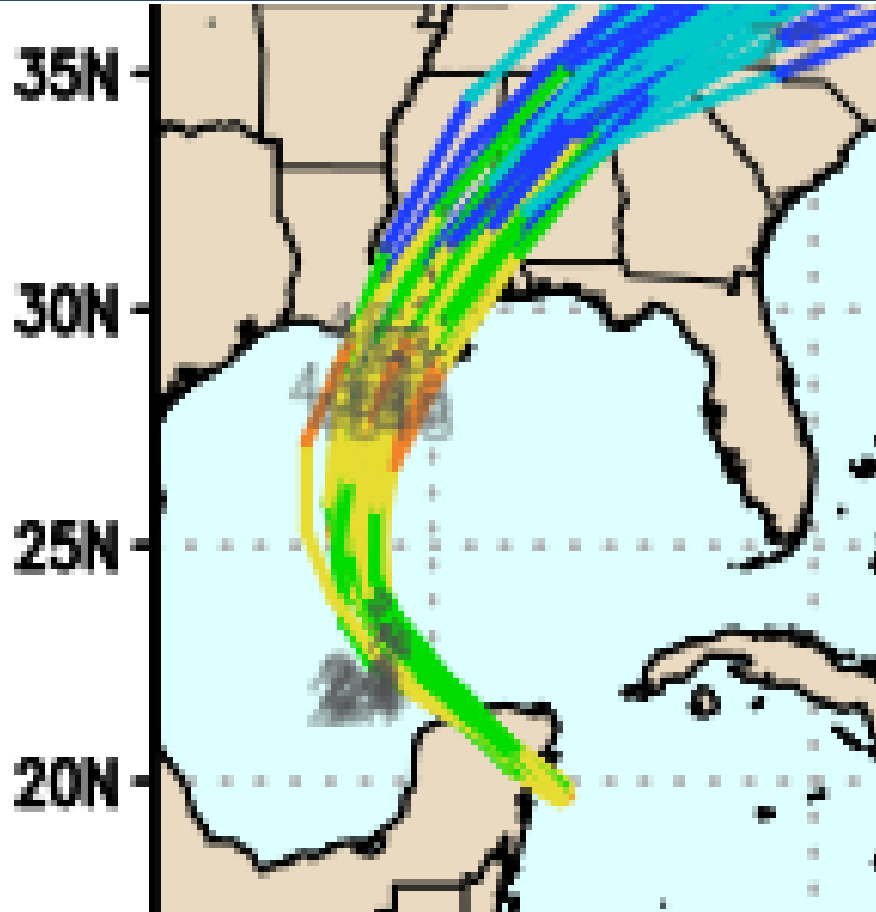
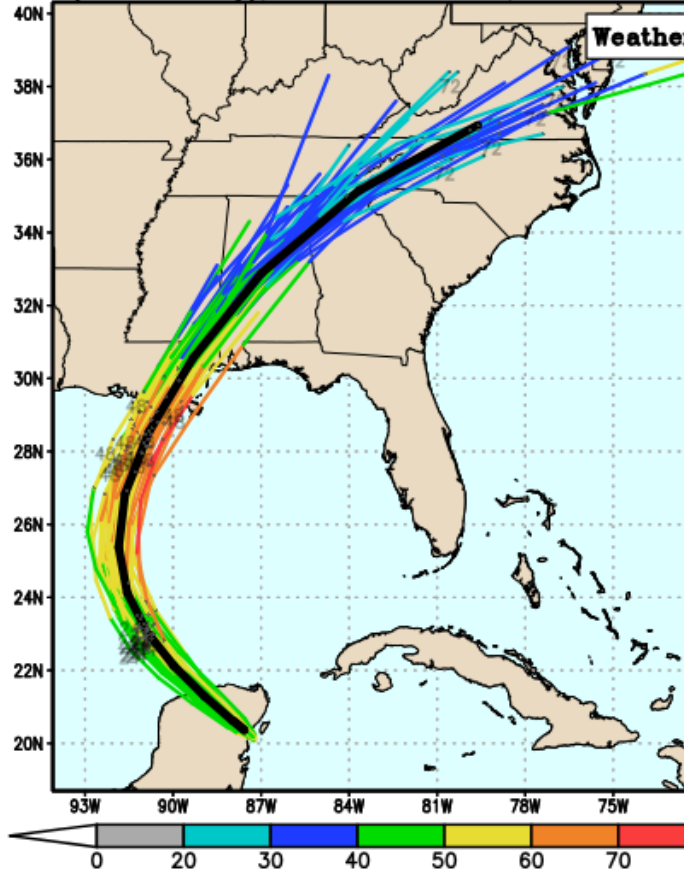
Slow Moving Storm



# Model Forecast Tracks

## Ensemble & Dynamical Models

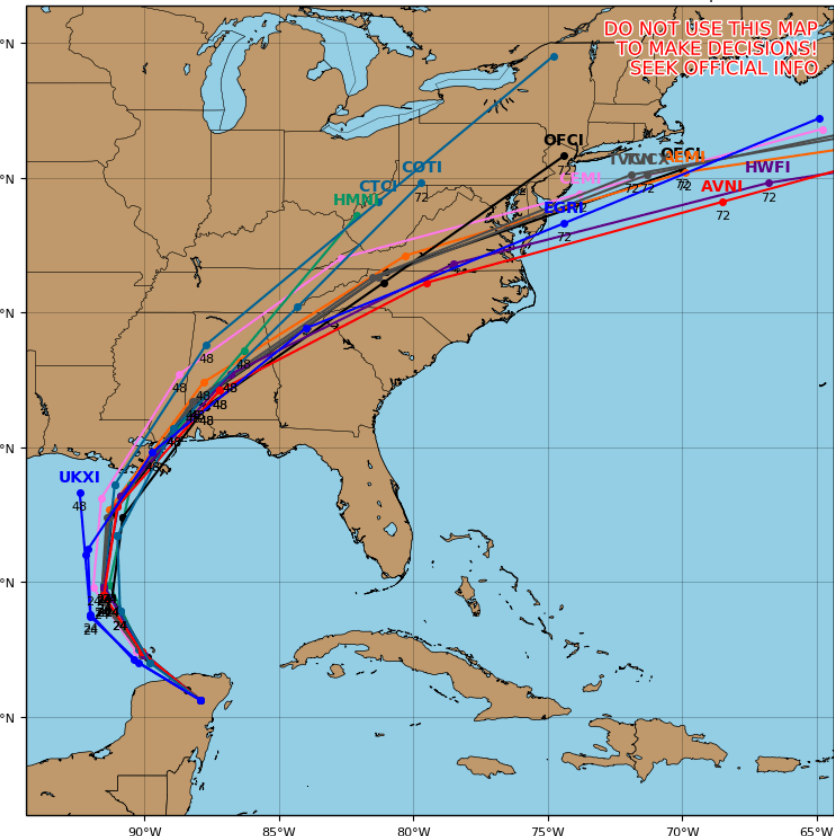
ECMWF Ens. (0-120h only), init: 2020102700, AL28 Zeta



Hurricane ZETA Model Track Guidance

Initialized at 06z Oct 27 2020

Levi Cowan - tropicaltidbits.com



Confidence is very high in a Louisiana and Mississippi landfall, before a track across Alabama.  
Additional track changes are not likely.

*\*However, impacts will extend well east of the track of the center!\**



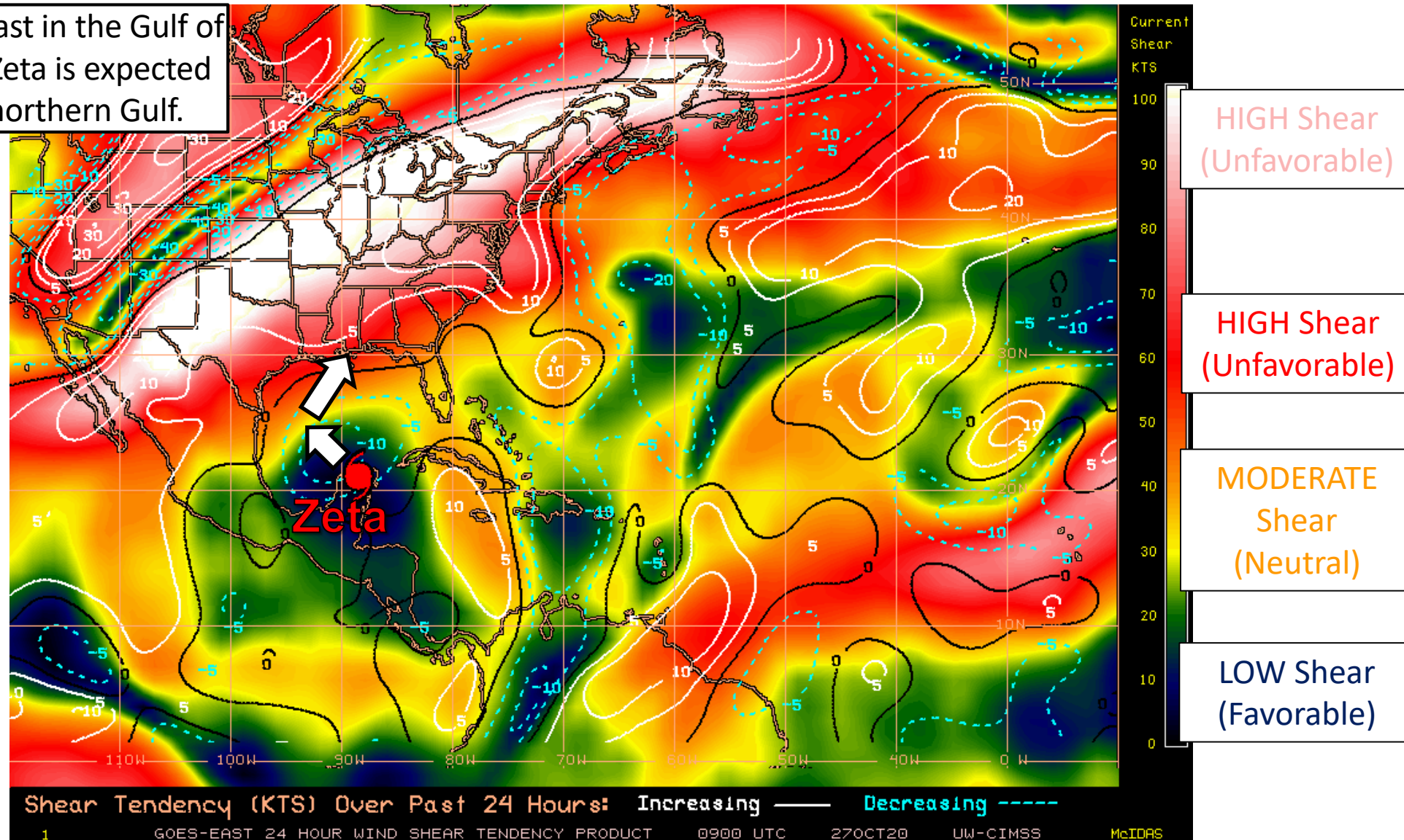


# Wind Shear

Is the environment favorable for the system?

Color denotes the amount of wind shear and the lines denote how it have changed over the last 24 hours (dotted lines show decreasing shear and solid lines show increasing).

Wind shear is lower than forecast in the Gulf of Mexico and strengthening of Zeta is expected until it nears landfall in the northern Gulf.



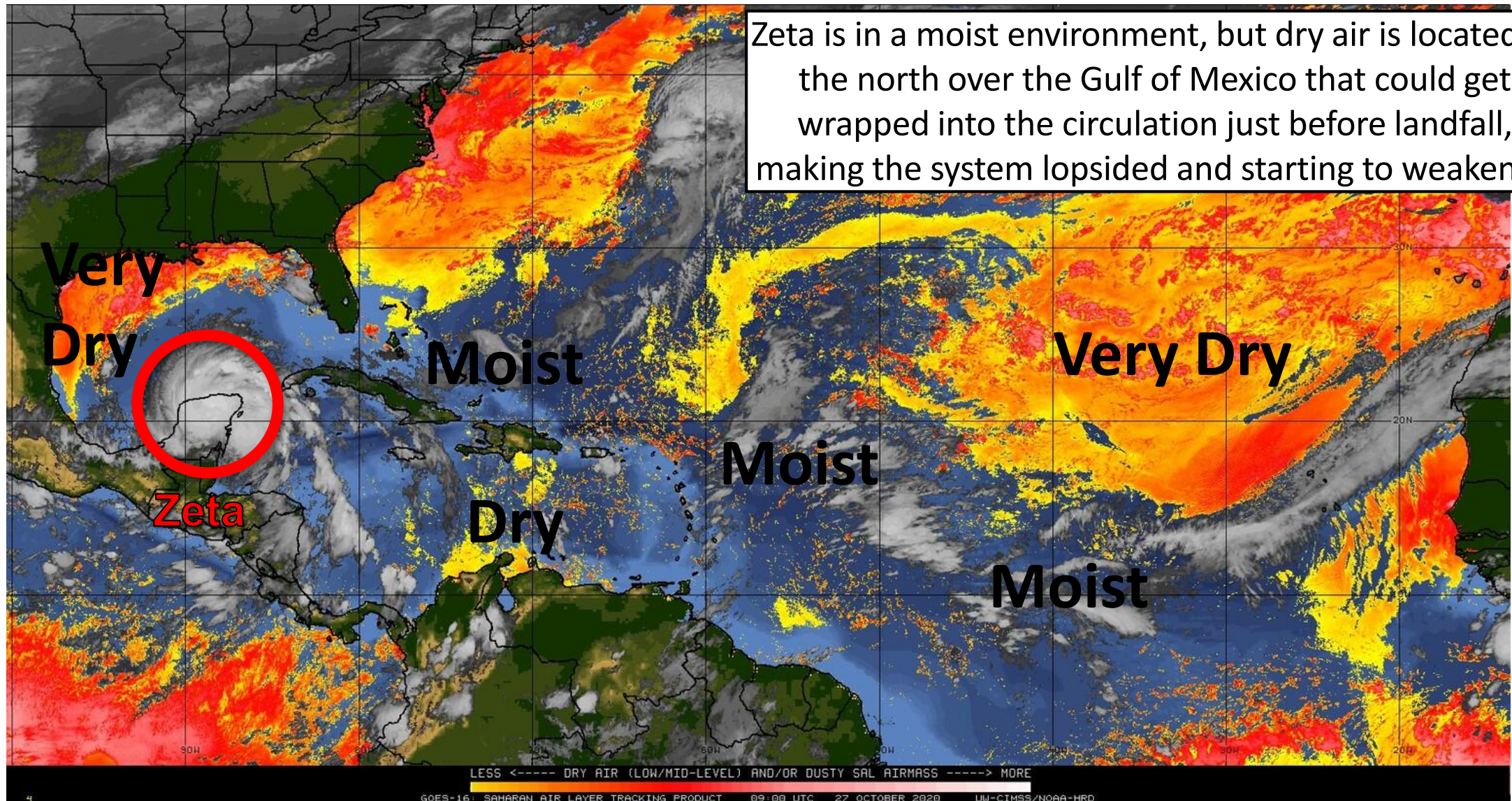




# Dry Air & Saharan Dust

Is the environment favorable for the system?

Color denotes concentration of Saharan Dust or dry, stable air.







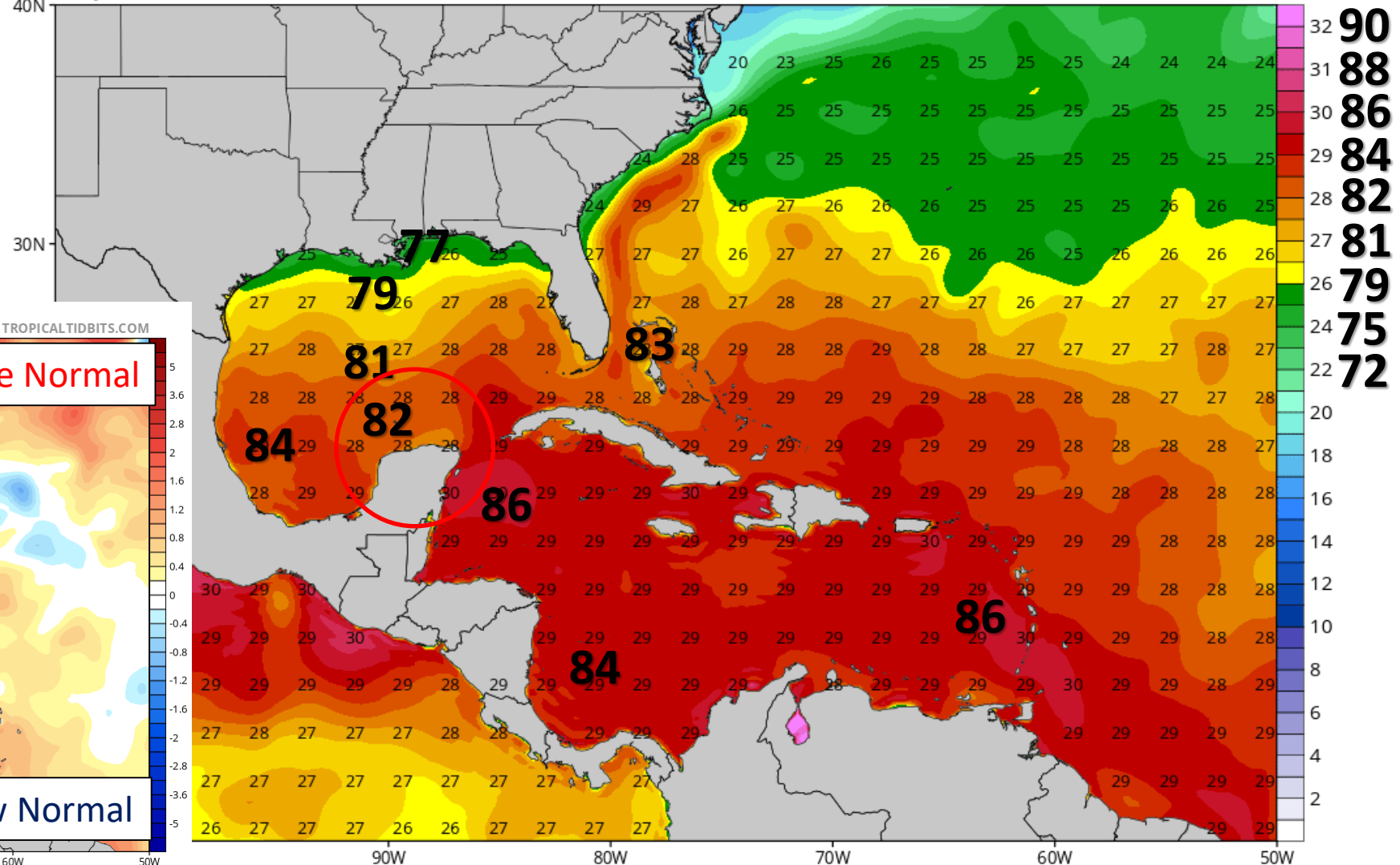
# Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

In the Gulf, temperatures cool as a system moves north, but they remain warm enough to support a hurricane.

CDAS Sea Surface Temperature (°C)

Analysis Time: 00z Oct 27 2020







# Damaging Wind Threat Overview

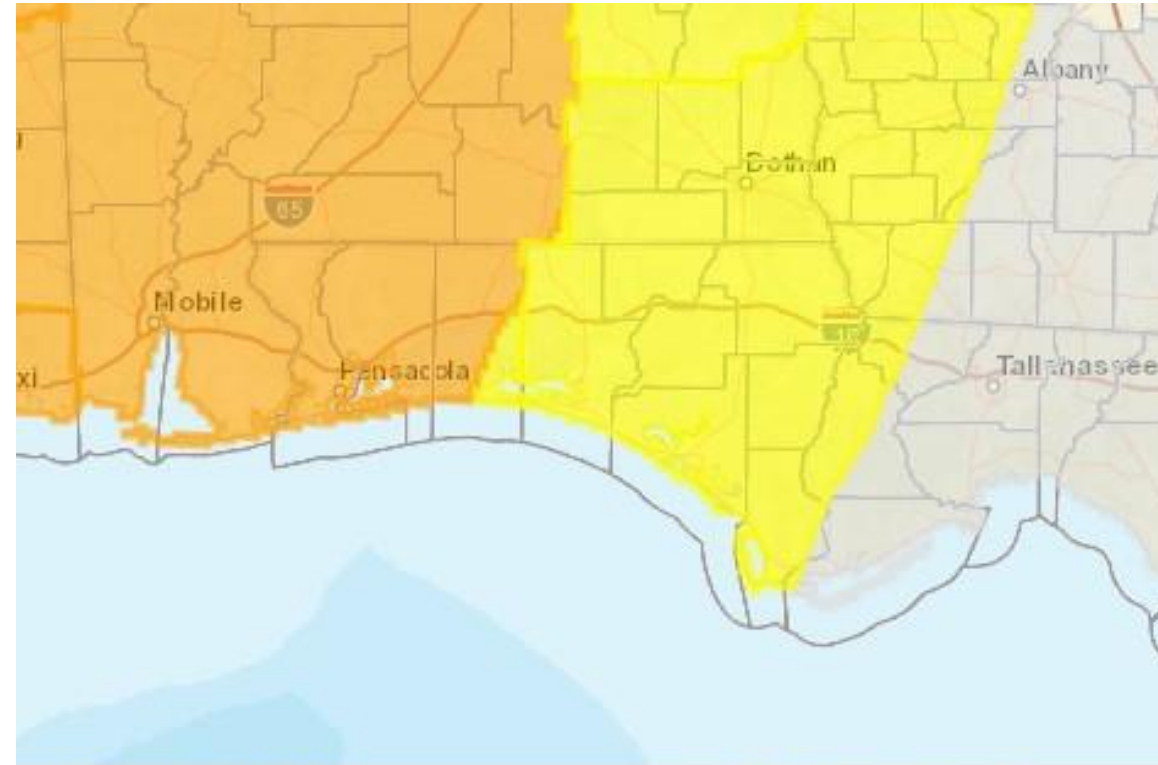
## Tropical Storm Zeta

The greatest wind threat will be in the western Panhandle, where wind gusts of 60-70 mph will be possible Wednesday night.

Gusts to tropical storm force (40-50 mph) remain possible in the eastern Panhandle to the Apalachicola River, and a slight shift in the track east would result in tropical storm warnings being issued.

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

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

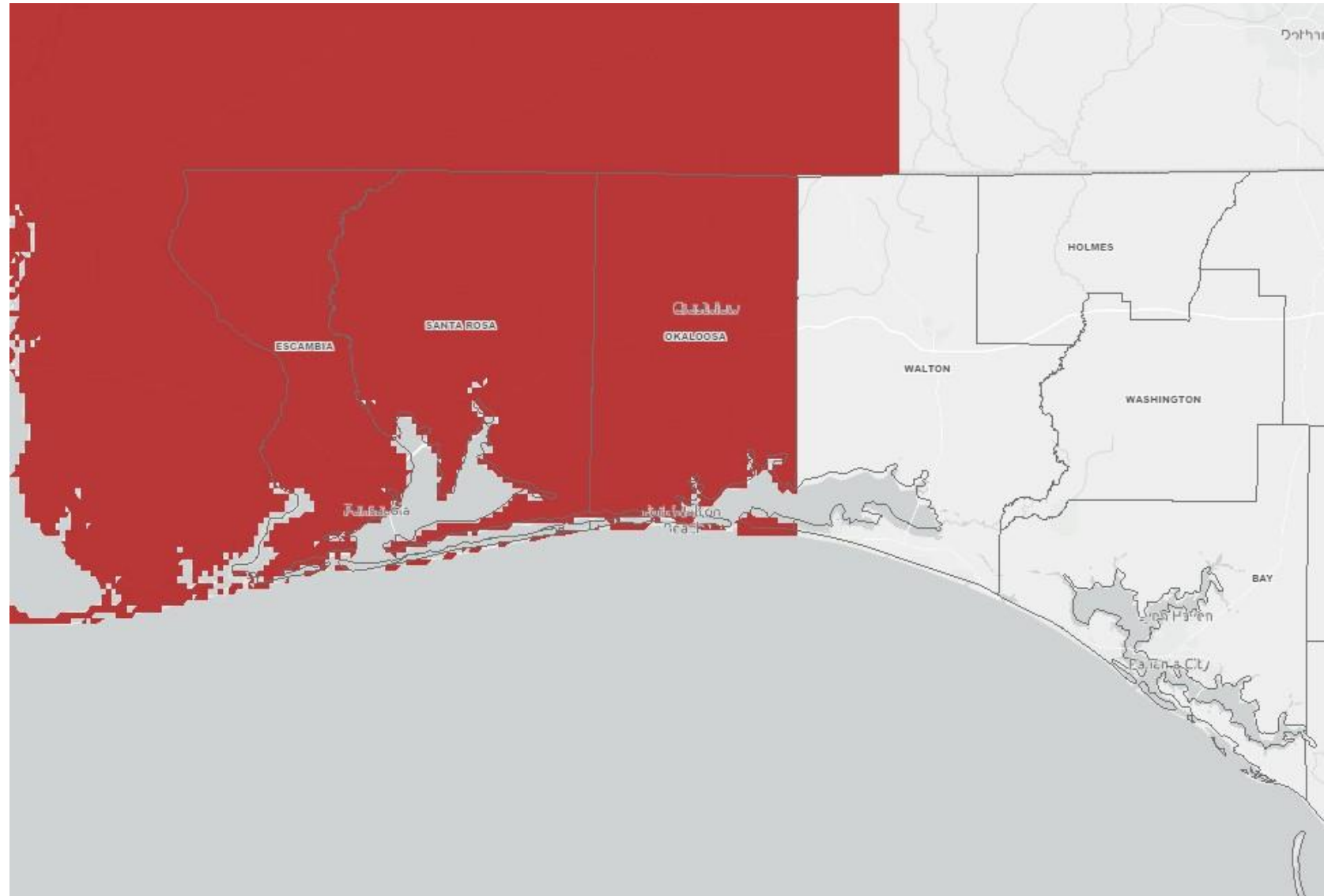


# Wind Watches and Warnings

In Effect Until Further Notice

**Tropical Storm Warnings are in effect for coastal and inland portions of Escambia, Santa Rosa, and Okaloosa County.**

These have been upgraded from watches issued yesterday.





# 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



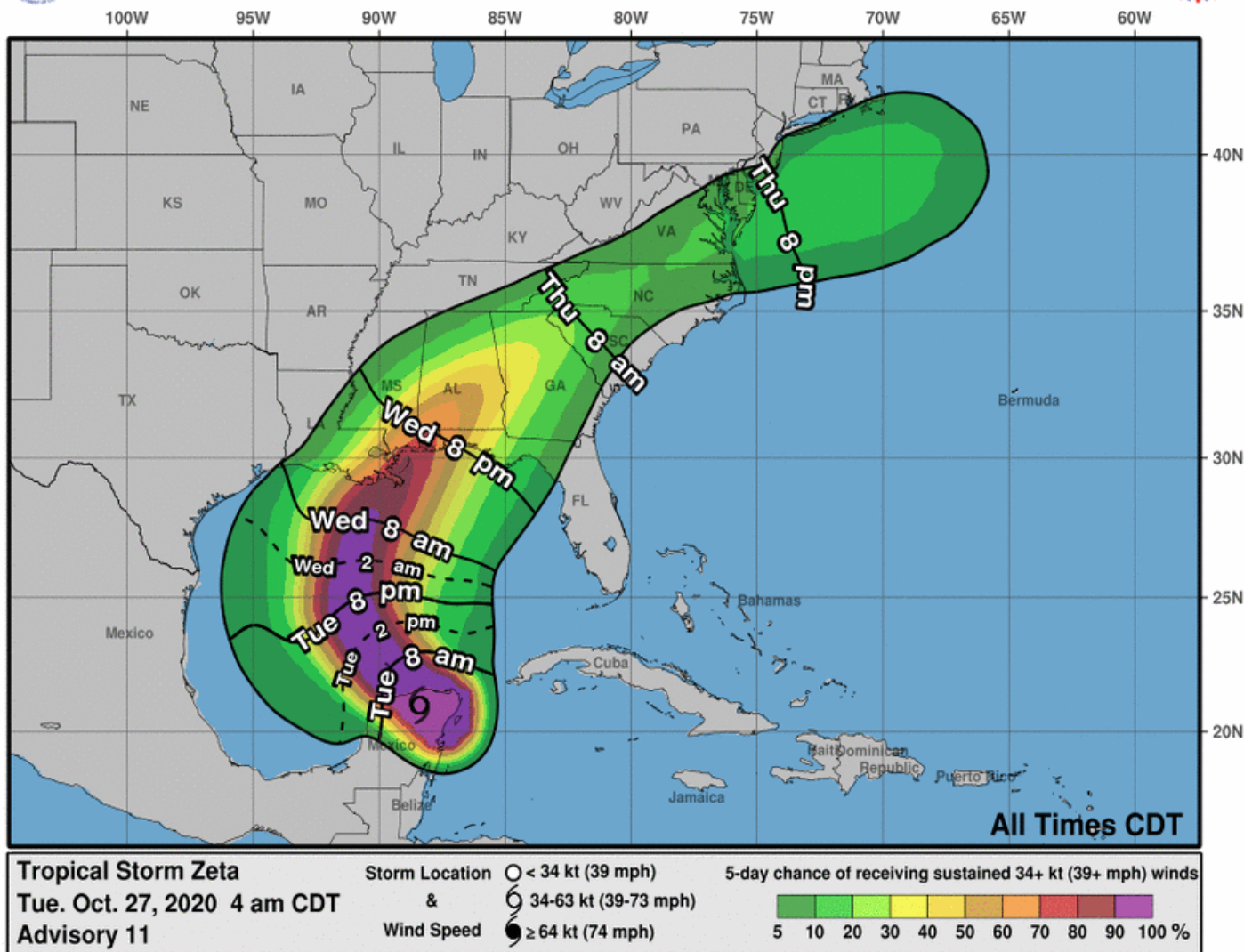
[weather.gov/mob](https://weather.gov/mob)



# 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



**Pensacola NAS: 63% (+12)**

**Pensacola: 60% (+12)**

**Milton: 59% (+12)**

**Destin: 47% (+10)**

**Panama City: 27% (+4)**

**Apalachicola: 18% (+3)**

**Tallahassee: 17% (+4)**

\*Numbers in Parentheses are changes in probabilities since the last packet\*

Tropical storm force winds could begin late Wednesday afternoon along the coast, but would most likely begin in the evening and overnight.

**The odds of tropical storm force winds have increased again in the Panhandle overnight, approaching 2 in 3 changes in Pensacola.**





# Surge Watches and Warnings

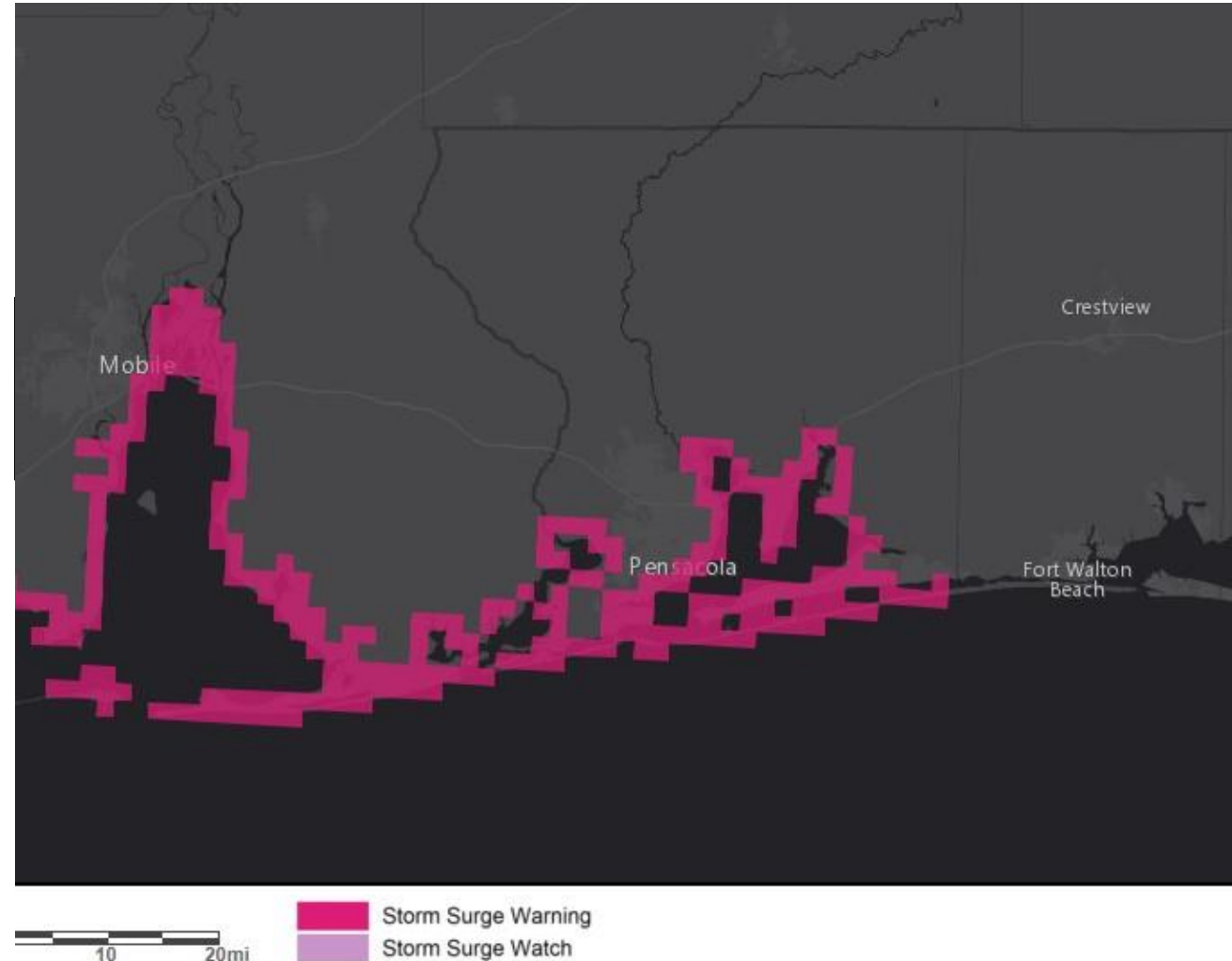
In Effect Until Further Notice

**Storm Surge Warnings** are in effect from the **Alabama/Florida line eastward to Navarre Beach**, including Perdido Bay, Pensacola Bay, and Santa Rosa Sound.

This includes Escambia County and part of Santa Rosa County.

[https://www.nhc.noaa.gov/refresh/graphics\\_at3.shtml/204401.shtml?wsurge#contents](https://www.nhc.noaa.gov/refresh/graphics_at3.shtml/204401.shtml?wsurge#contents)

Interactive Watch/Warning Map



# 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.

# 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.







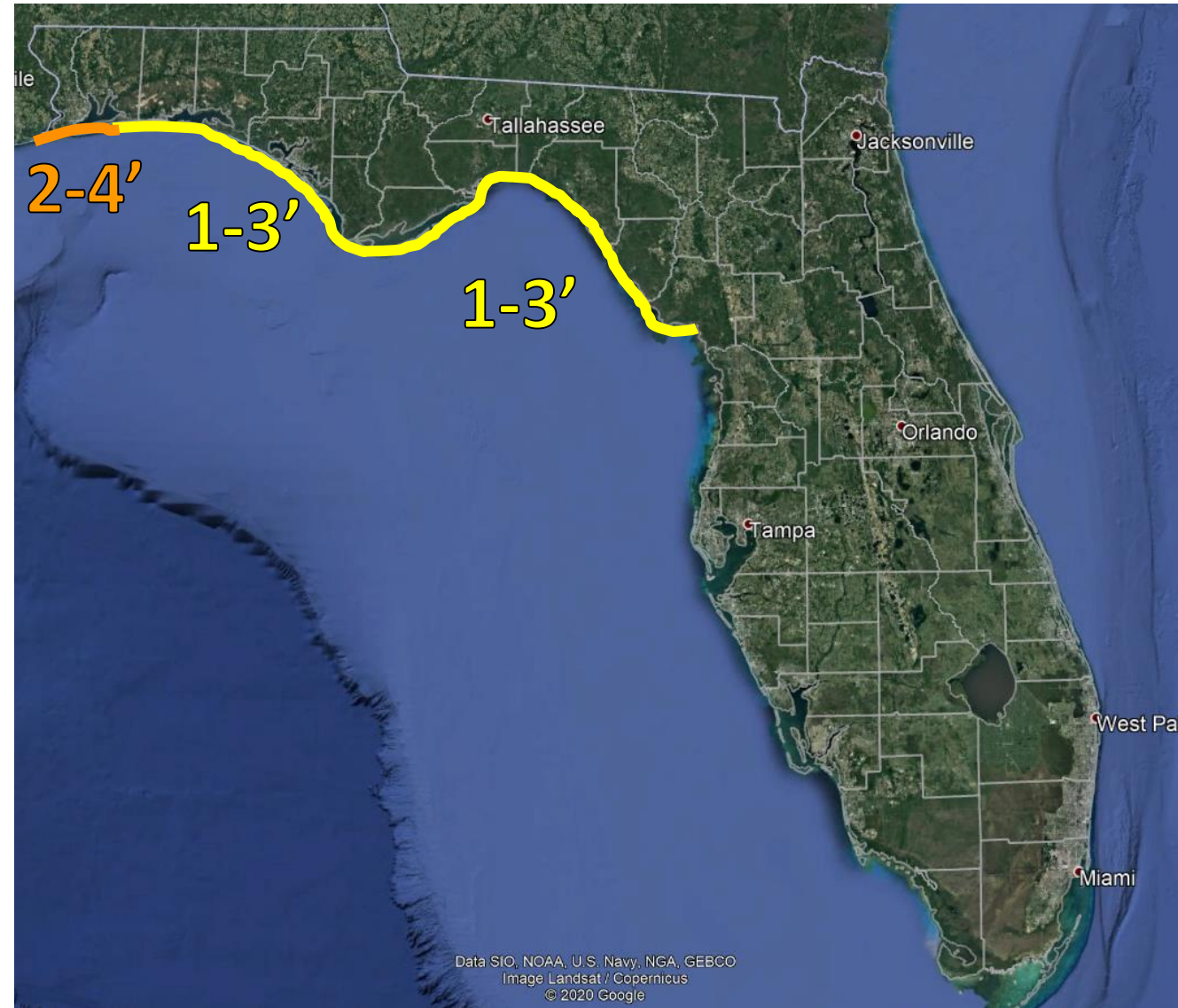
# Storm Surge/Coastal Flooding

## Wednesday – Tropical Storm Zeta

Onshore winds associated with Zeta will result in some minor coastal flooding along the Panhandle, particularly at high tide Wednesday and Wednesday night.

Moderate flood stage at Pensacola can't be ruled out.

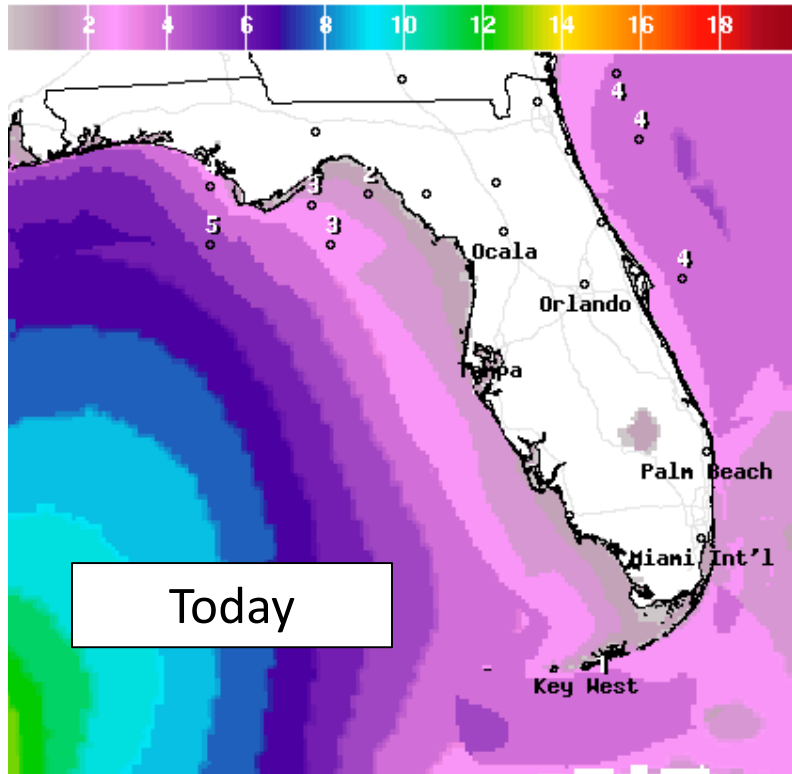
**2-4' of storm surge is possible in the western Panhandle, including Pensacola Bay with 1-3' further east into Apalachee Bay.**





# Forecast Wave Heights

## Early This Week

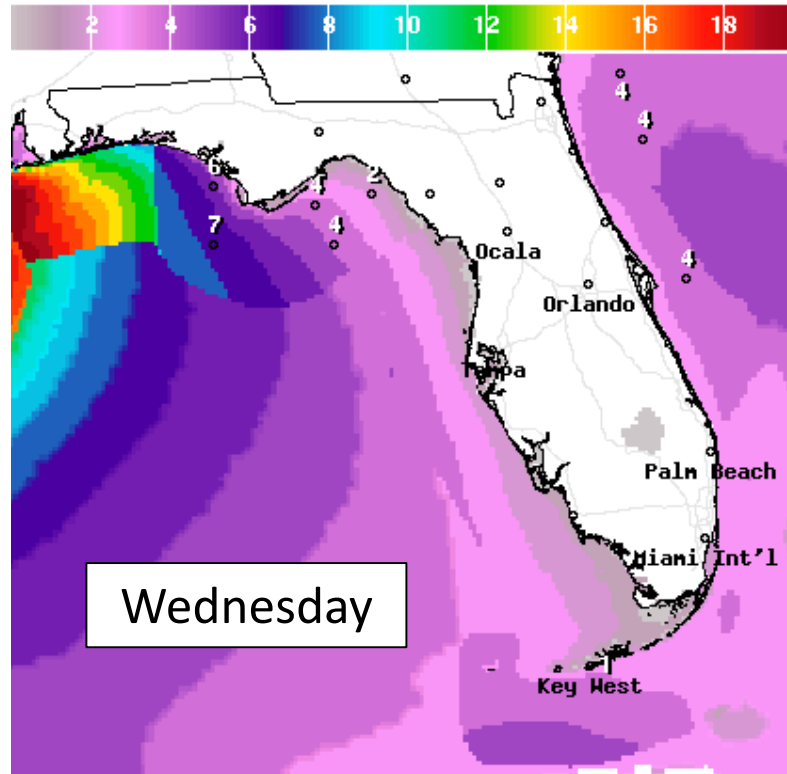


Wave Height(ft) Ending Tue Oct 27 2020 8PM EDT  
(Wed Oct 28 2020 00Z)



National Digital Forecast Database

10z issuance Graphic created-Oct 27 6:53AM EDT

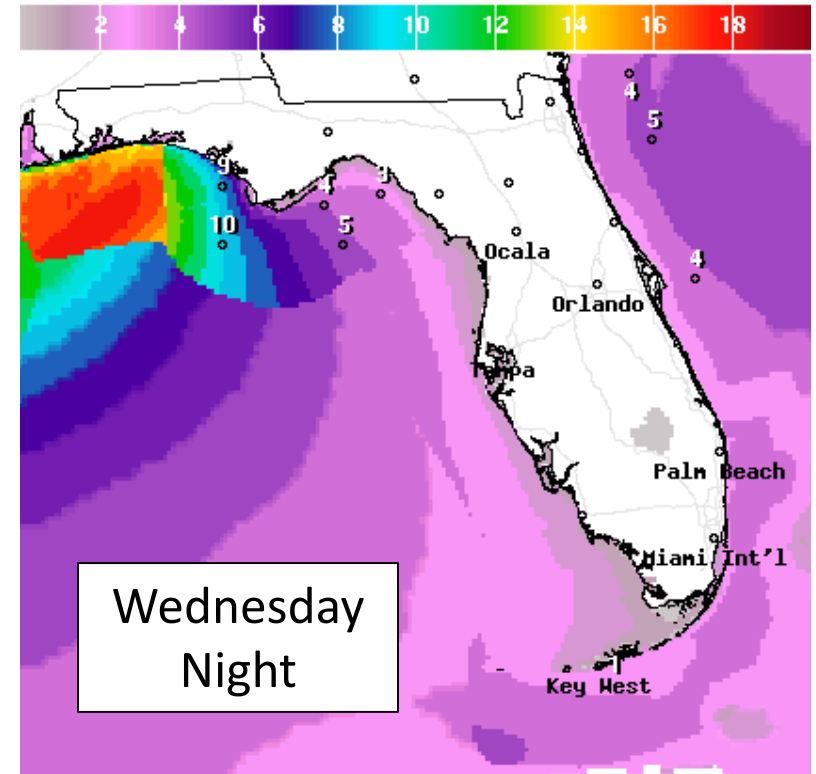


Wave Height(ft) Ending Wed Oct 28 2020 8PM EDT  
(Thu Oct 29 2020 00Z)



National Digital Forecast Database

10z issuance Graphic created-Oct 27 6:53AM EDT



Wave Height(ft) Ending Thu Oct 29 2020 2AM EDT  
(Thu Oct 29 2020 06Z)



National Digital Forecast Database

10z issuance Graphic created-Oct 27 6:53AM EDT



Wave heights will gradually build along the Panhandle with breaking waves of 3-6' by today and 4-8' on Wednesday. Wave heights will be 8-12' Wednesday night, possibly higher. Minor beach erosion with a few spots of more significant erosion possible in the western Panhandle, especially in areas with damaged dune lines from Sally.

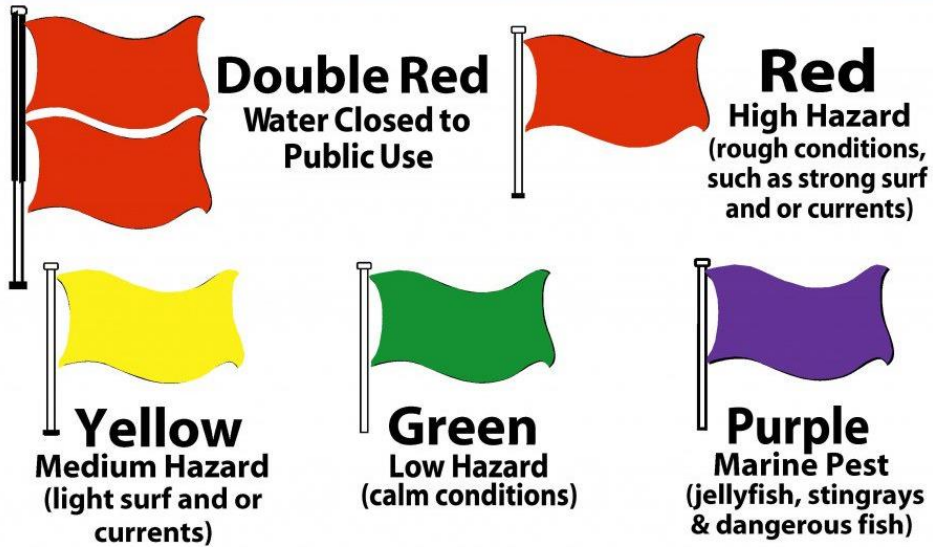




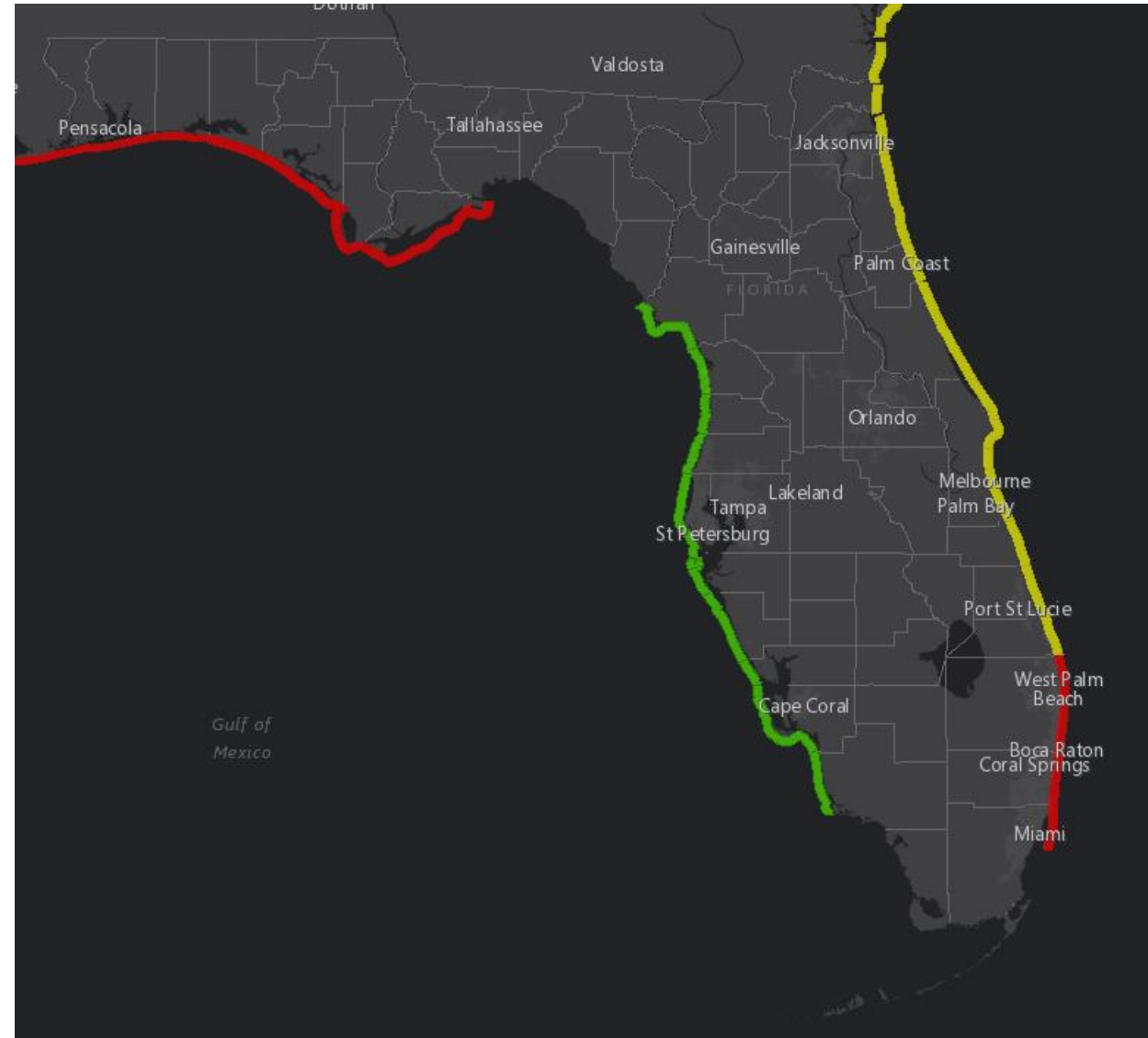
# Rip Current Outlook

Today

## BEACH FLAG WARNING SYSTEM



Long period swells from Epsilon will keep the rip current risk elevated at Atlantic beaches. The rip current risk along the Gulf Coast will increase with a high rip current risk expected at all Panhandle beaches at least through Thursday.





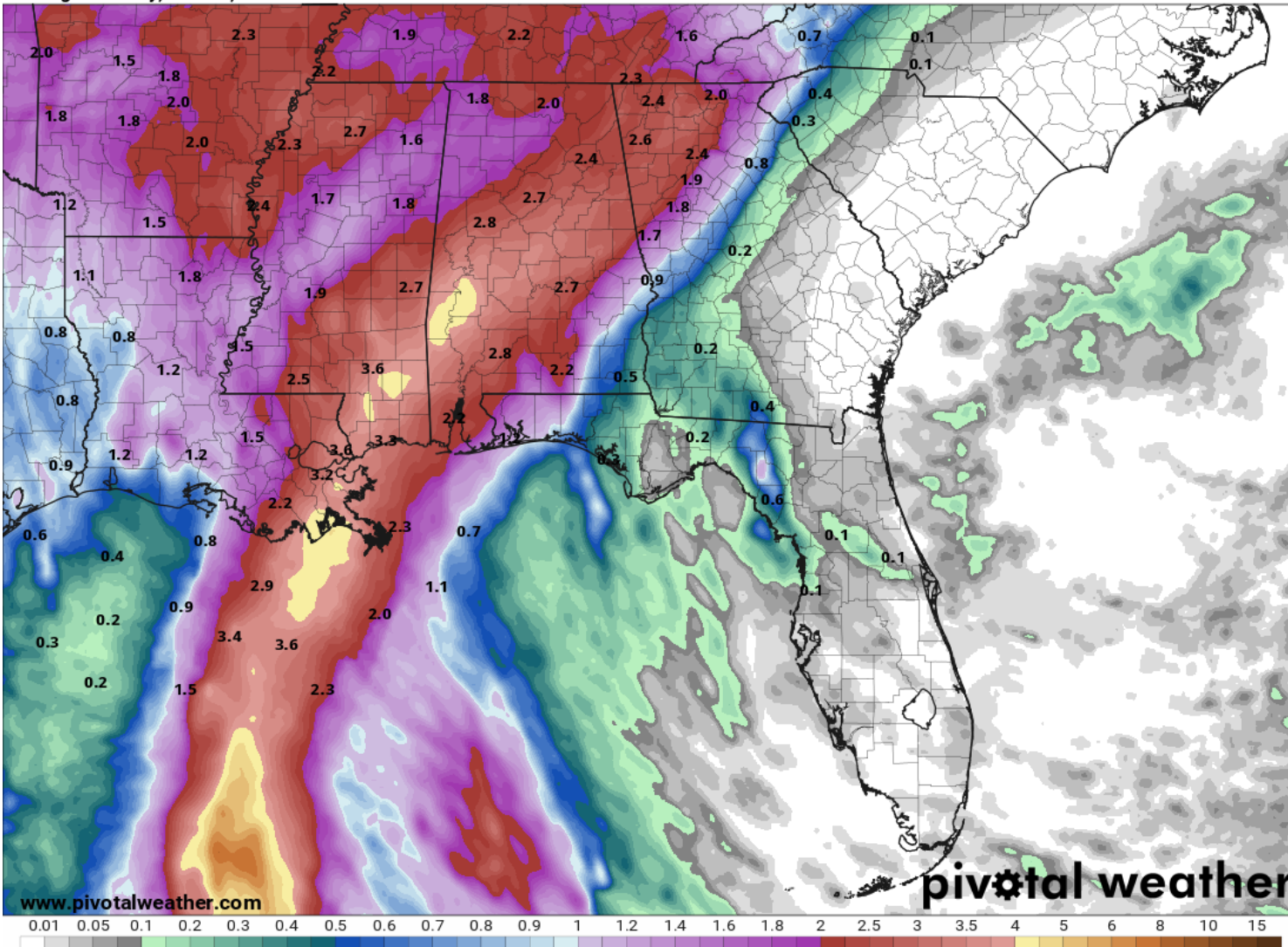
# Rainfall Totals Next 48 Hours

Ending 8 AM ET Thursday

48-Hour Precipitation (in)

Ending Thursday, Oct. 29, 2020 at 8 a.m. EDT

Init: Tue 2020-10-27 12z WPC



Zeta will be moving quick limiting the flash flood risk. 1-3" of rain is currently expected across the Panhandle through Wednesday night, with locally higher amounts of 4-6".

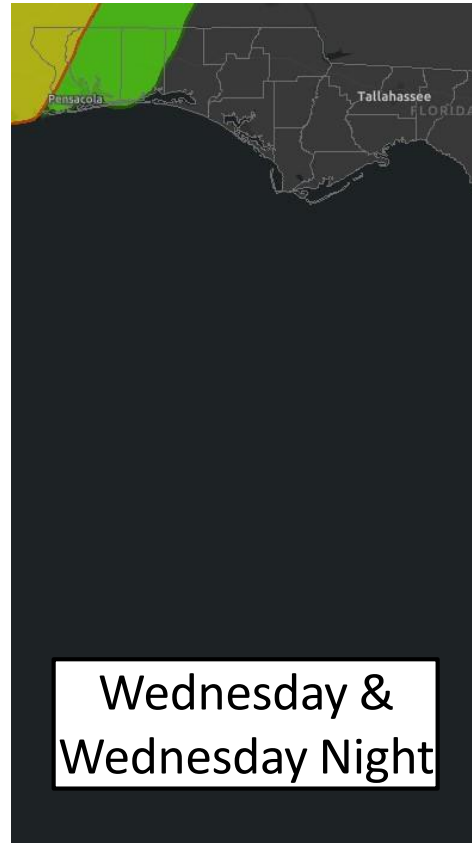
There are no flash flood watches at this time.










# Flash Flood Outlook

From the Weather Prediction Center



## Understanding WPC Excessive Rainfall Risk Categories

No Area/Label	MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)
Flash floods are generally not expected. <a href="http://www.wpc.ncep.noaa.gov">@NWSWPC</a>	Isolated flash floods possible  Localized and primarily affecting places that can experience rapid runoff with heavy rainfall.	Scattered flash floods possible  Mainly localized. Most vulnerable are urban areas, roads, small streams and washes. Isolated significant flash floods possible.	Numerous flash floods likely  Numerous flash flooding events with significant events possible. Many streams may flood, potentially affecting larger rivers.	Widespread flash floods expected  Severe, widespread flash flooding. Areas that don't normally experience flash flooding, could. Lives and property in greater danger.
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%**

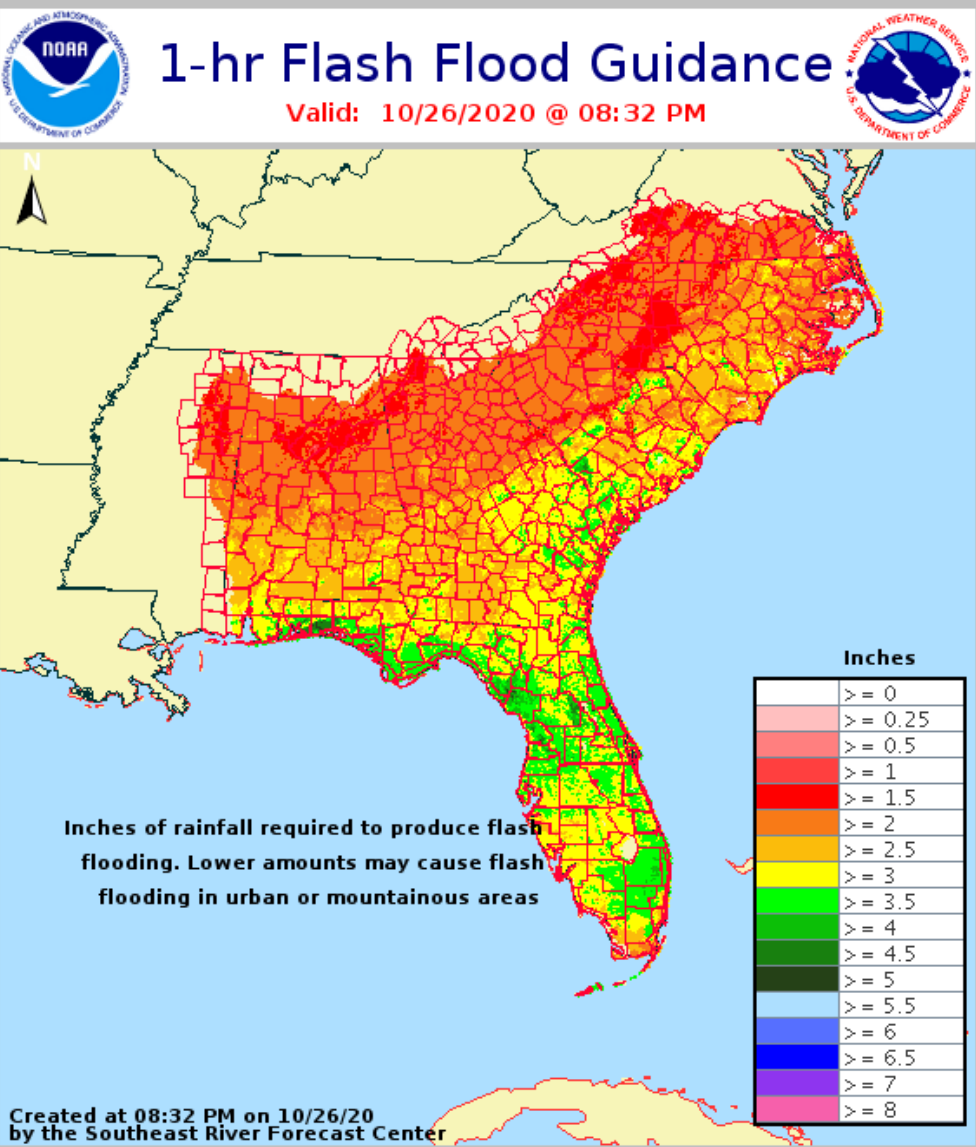
**MRGL: 5%-10%**

Slow moving thunderstorms will develop today ahead of Zeta, and rain bands will bring a flash flood threat Wednesday night.



# Flash Flood Guidance

## How Much Rain is Needed to Create Flash Flooding?



With heavy rainfall across the Panhandle and South Florida recently, only 2-3" of rain within 1 hour or about 3-5" within 6 hours is needed to cause flash flooding.

Soils remain super-saturated in these areas, and rainfall will more easily run off, causing flooding concerns in urban areas.

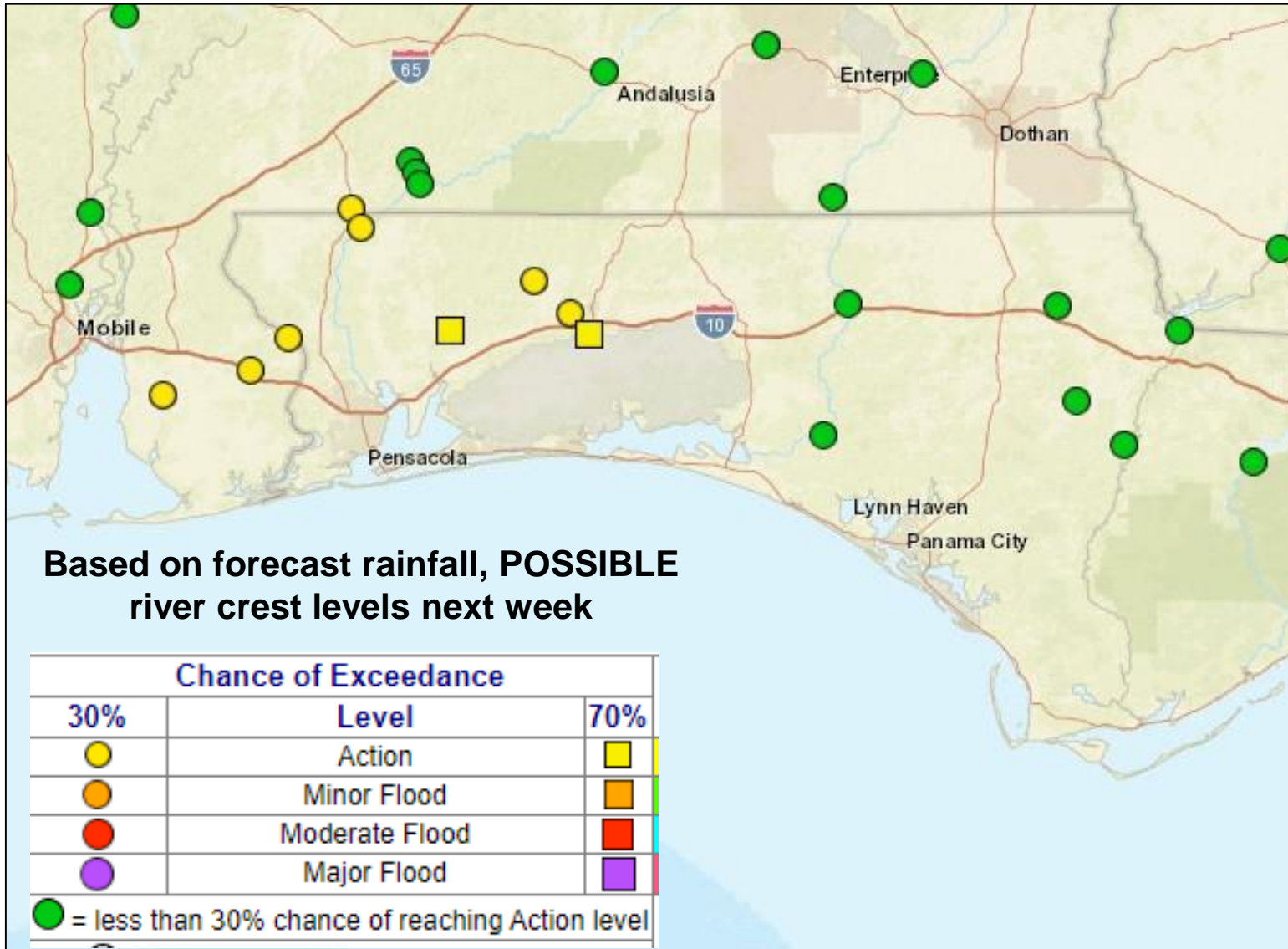
There are no flash flood watches in effect at this time.





# Possible River Flooding

## Chance of River Flooding Based on Range of Forecasted Rainfall



Rivers, streams, and creeks continue to run high from recent heavy rainfall.

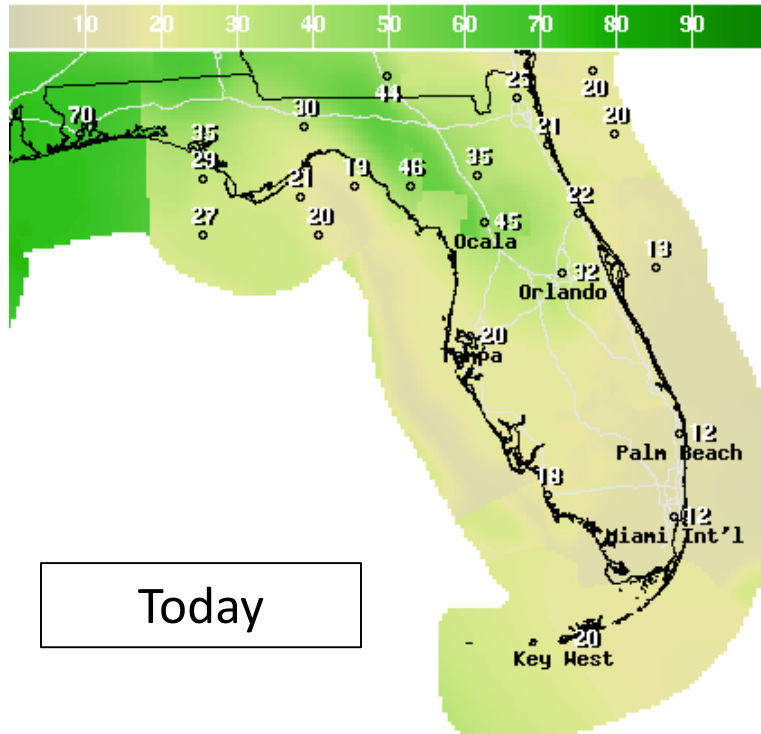
However, Zeta will be quick, limiting the river flood threat.

Rainfall totals over 4" will generally be needed to bring rivers to minor flood stage, but some rises to bank-full are anticipated in most areas based off of current rainfall forecasts of 1-3".

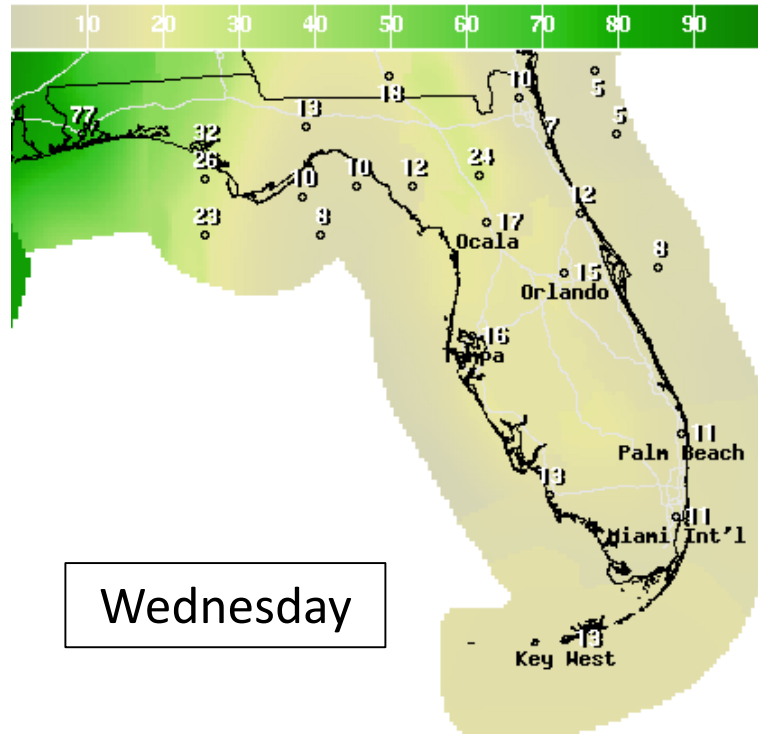


# Forecast Rain Chances

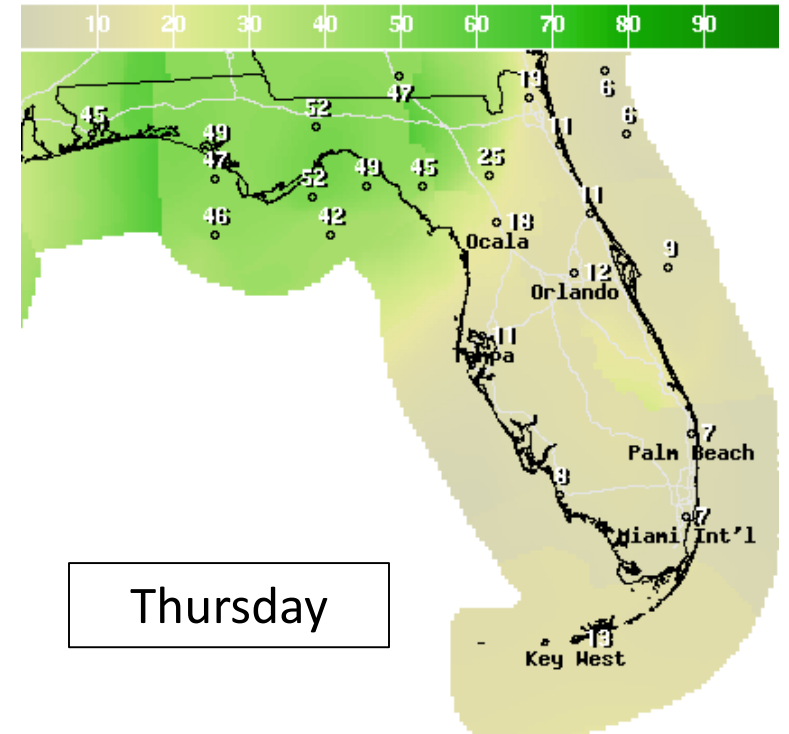
## Next 3 Days



12Hr Prob.Precip(%) Ending Tue Oct 27 2020 8PM EDT  
(Wed Oct 28 2020 00Z)  
National Digital Forecast Database  
10z issuance Graphic created-Oct 27 6:55AM EDT



12Hr Prob.Precip(%) Ending Wed Oct 28 2020 8PM EDT  
(Thu Oct 29 2020 00Z)  
National Digital Forecast Database  
11z issuance Graphic created-Oct 27 7:50AM EDT



12Hr Prob.Precip(%) Ending Thu Oct 29 2020 8PM EDT  
(Fri Oct 30 2020 00Z)  
National Digital Forecast Database  
11z issuance Graphic created-Oct 27 7:50AM EDT

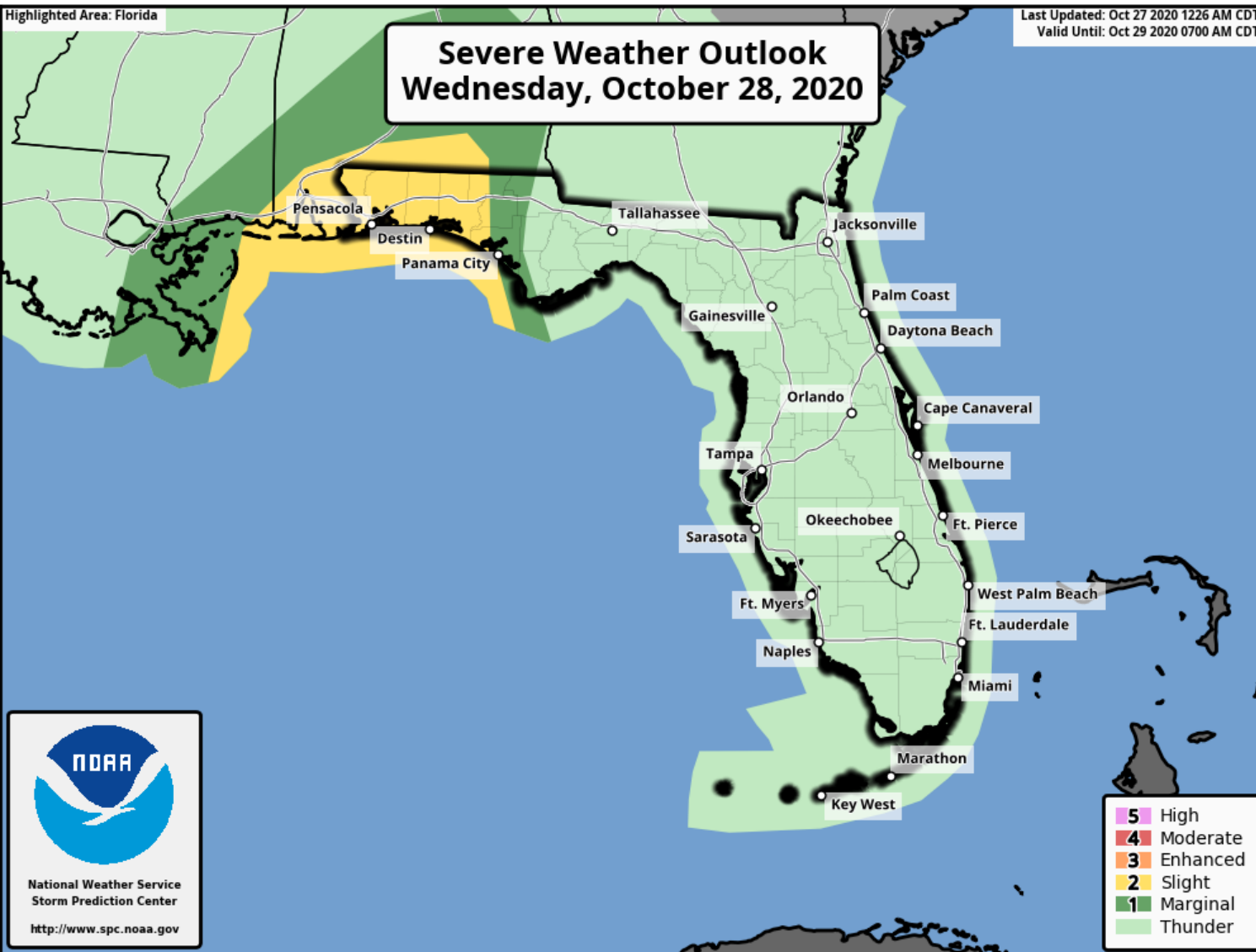
Central & South Florida gradually dry out after a long stretch of wet weather.  
Scattered showers and thunderstorms are expected in the Panhandle on Tuesday.  
Widespread rain chances are forecast for Wednesday and Wednesday night as Zeta moves inland, with rain chances continuing on Thursday across North Florida.





# Severe Weather Outlook

From the Storm Prediction Center – Wednesday Night



As the outer bands from Zeta move through the Panhandle Wednesday evening and Wednesday night, a few tornadoes are possible. There is a **Slight Risk** (level 2 of 5) of Severe Weather, and Tornado Watches could be issued.

## 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

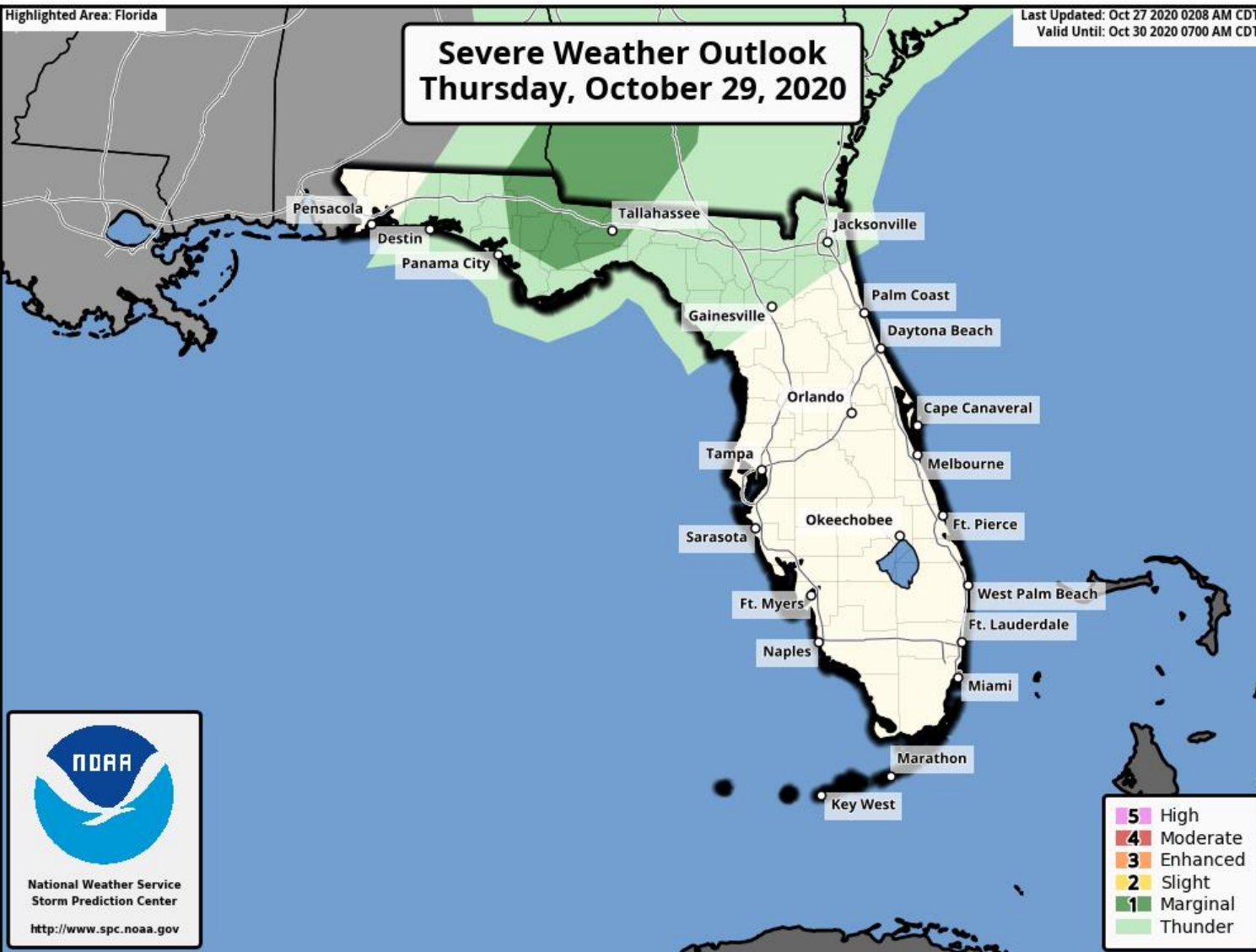
[www.spc.noaa.gov](http://www.spc.noaa.gov)





# Severe Weather Outlook

From the Storm Prediction Center - Thursday



As the remnant outer bands of Zeta and a weak cold front move through North Florida on Thursday, an isolated tornado or damaging wind gust is possible. There is a **Marginal Risk** (level 1 of 5) of Severe Weather.

## 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
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National Weather Service

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







# Florida Outlook

## Florida Outlook:

- Zeta made landfall on the Yucatan Peninsula overnight and is moving into the Gulf of Mexico.
- Zeta is forecast to strengthen back into a hurricane today and remain a hurricane as it approaches Louisiana.
- Zeta will be moving quickly to the northeast on Wednesday night at the time of landfall, with the center likely tracking across southern Alabama, close but not over the western Panhandle.
- The far western Panhandle remains in the forecast cone. ***Impacts will occur well outside the cone, particularly to the east of landfall as Zeta is likely to be lopsided.***
- Tropical Storm Warnings are in effect for Escambia, Santa Rosa, and Okaloosa Counties.
- If tropical storm force winds were to occur, it would most likely be late Wednesday night.
- Storm Surge Warnings are in effect from the Alabama/Florida border to Navarre Beach, including Pensacola Bay.
- Storm surge of 2-4' is forecast for the western Panhandle and 1-3' eastward towards Cedar Key on Wednesday.
- Dangerous rip currents and beach erosion are expected with wave heights 8-12' along the western Panhandle.
- Heavy rainfall is possible across the Panhandle Tuesday Afternoon-Thursday. 1-3" of rain is likely, but locally higher amounts of 4-6" are possible. Flash flooding and minor river flooding are possible with the higher totals.
- A few tornadoes are possible in outer bands across the Panhandle, particularly Wednesday night. There is currently a Slight Risk (Level 2 of 5) of severe weather. Tornado watches may be issued.

The next briefing packet will be issued this evening with the 5 PM advisory. For the latest information on the tropics, please visit the National Hurricane Center website at [www.hurricanes.gov](http://www.hurricanes.gov).



# TROPICAL UPDATE



Created by:

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State Meteorological Support Unit

Florida Division of Emergency Management

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