



# TROPICAL UPDATE



5:00 PM EDT

Thursday, June 4, 2020

Tropical Depression Cristobal

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).



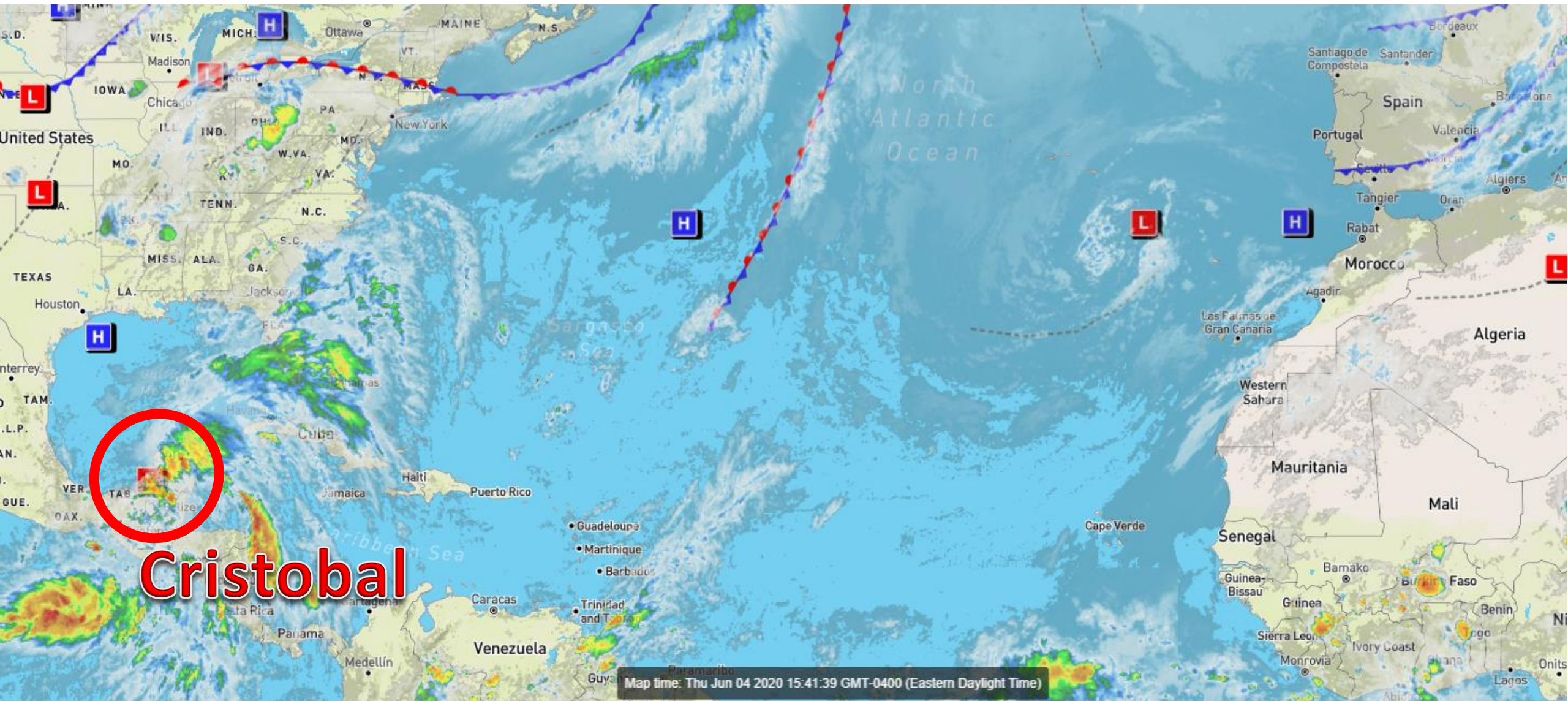
# Take Home Messages

- Heavy showers and thunderstorms will be possible **at any time** statewide through early next week with disruptions to field operations.
- Thunderstorms may track over the same areas resulting in isolated flash flooding in urban areas anywhere across the state through Saturday
- More focused flood threat develops from the Panhandle to the Nature Coast Saturday Night-Monday as a result of Tropical Storm Cristobal. A primary rain band may set up \*somewhere\* across North Florida, resulting in training storms and flash flooding.
- The risks for storm surge and gusty winds along the coast are also increasing. Gusty winds, perhaps to tropical-storm-force, may be possible along the coast of the western Panhandle with storm surge along the Gulf Coast. Tropical Storm and Storm Surge Watches could be issued later tonight or Friday.
- Isolated tornadoes, minor beach erosion, and dangerous rip currents are also possible.

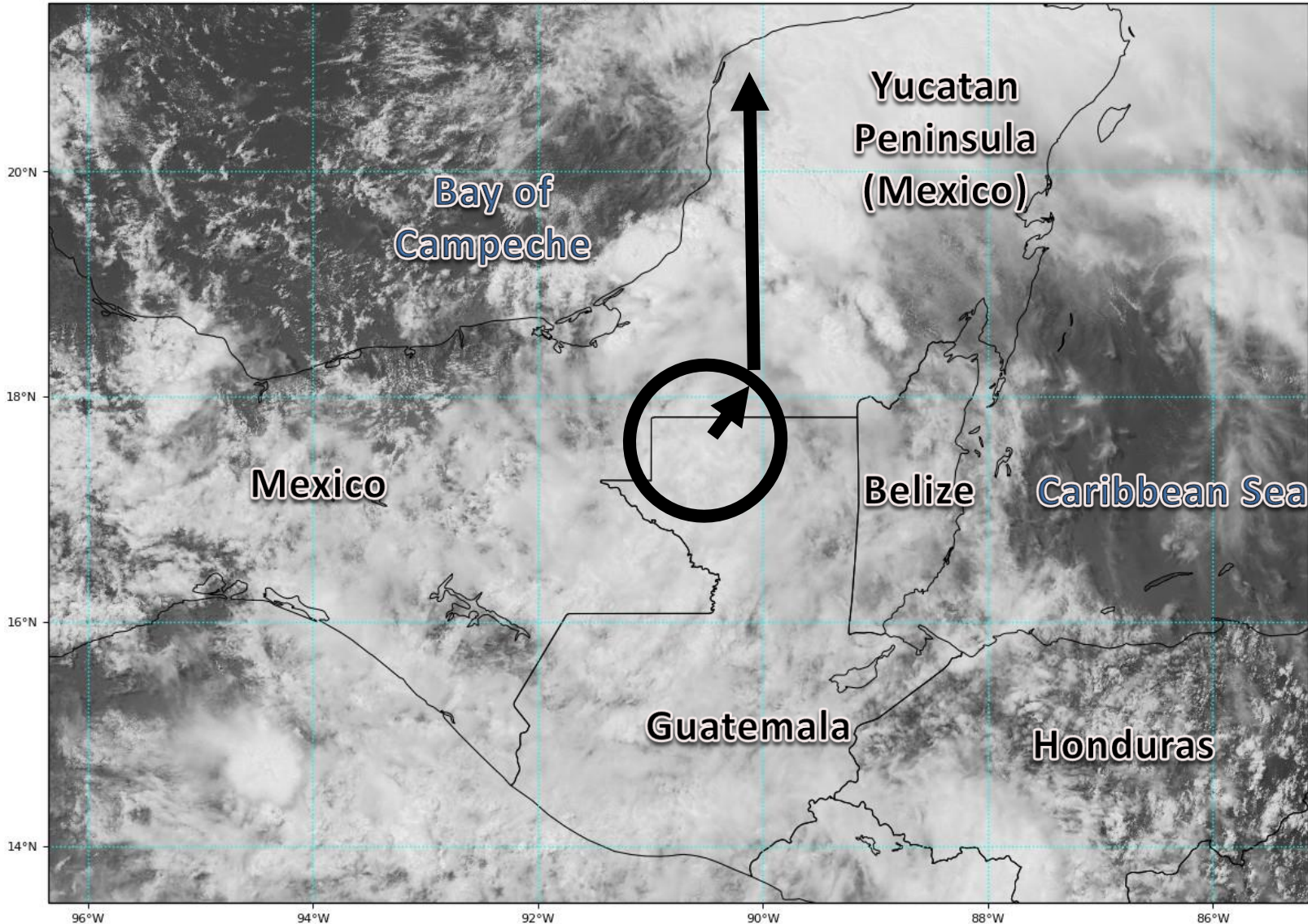


# Atlantic Basin Satellite Image

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



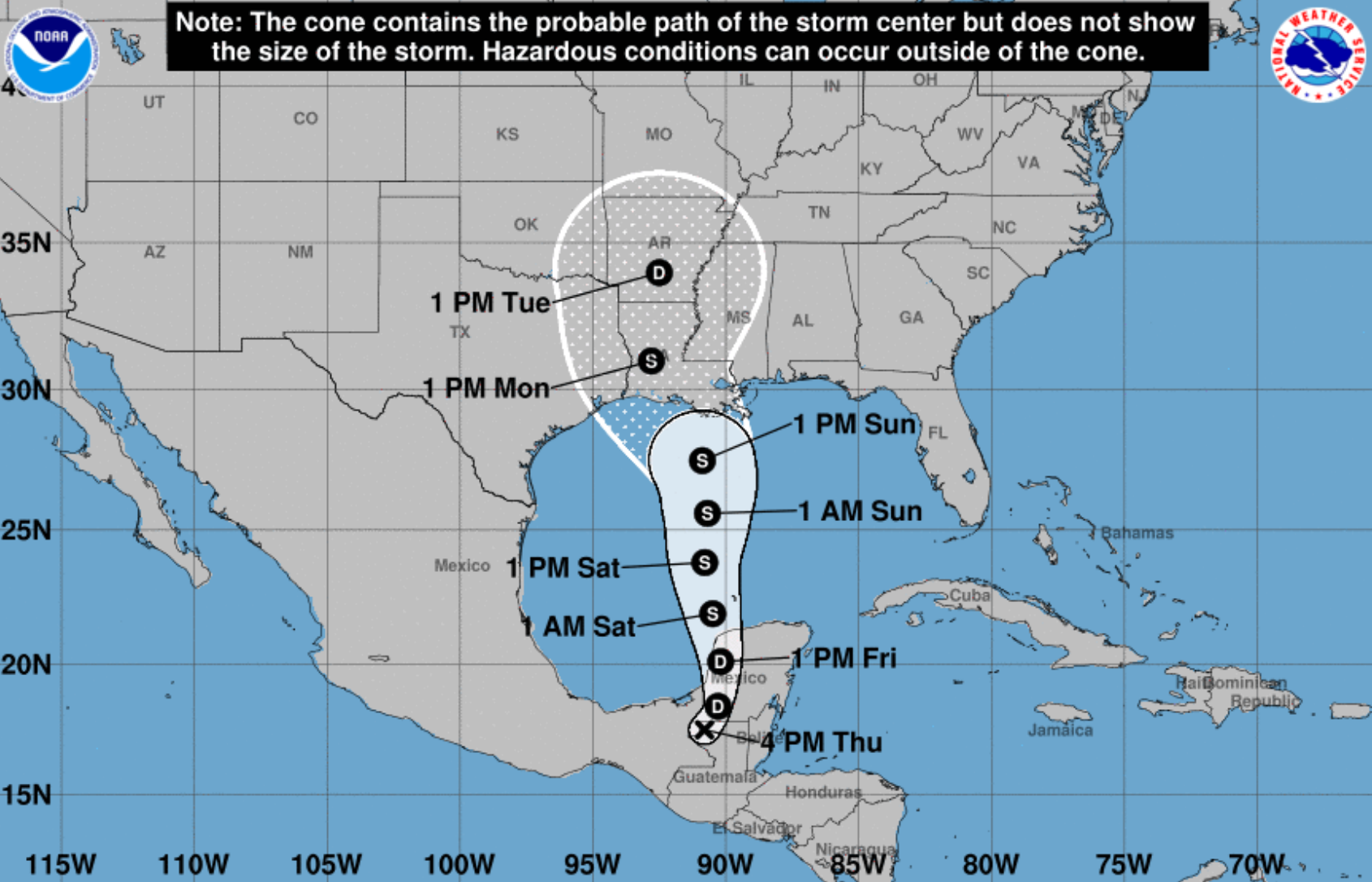




## Visible Satellite Imagery: Tropical Depression Cristobal

The center of Cristobal (black circle) is now in northern Guatemala. Cristobal will remain a tropical depression while it remains over land.

Once Cristobal emerges back into the Gulf of Mexico, strengthening back into a tropical storm is forecast. However, the future strength remains dependent on how much of the circulation is intact once it leaves the Yucatan Peninsula.



# Projected Path: Tropical Depression Cristobal

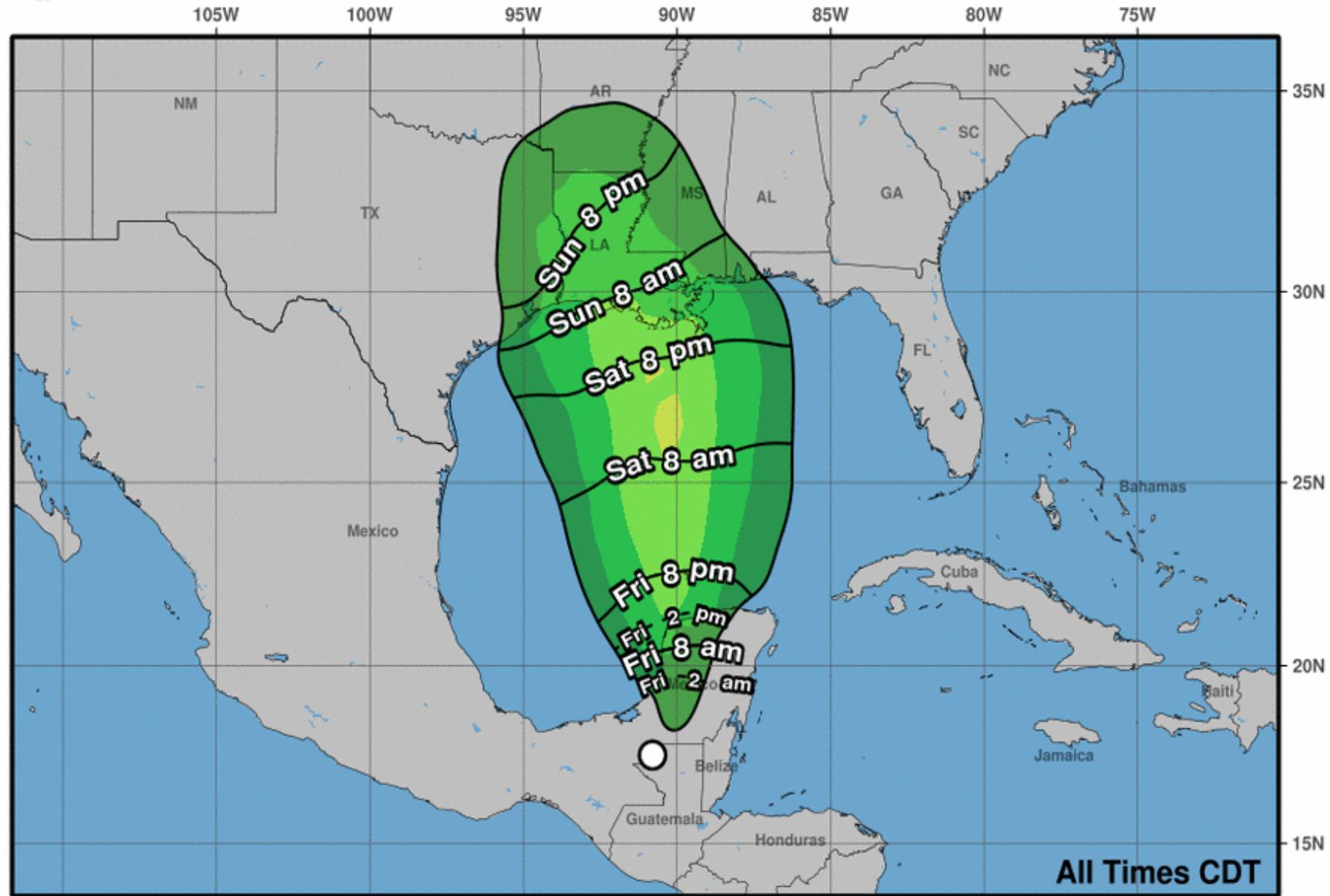
- The center of Cristobal is located about 165 miles south of Campeche, Mexico, or about 775 miles southwest of Key West, FL
- Maximum sustained winds are at 35 mph.
- The system will turn northeastward tonight then northward on Friday, emerging back into the Gulf of Mexico Friday evening.
- Restrengthening back into a tropical storm is likely late Friday night
- Cristobal will likely make landfall along the Louisiana or southeast Texas coast late Sunday night or Monday morning.
- Cristobal will slowly move northward over the mid-South early next week.

<b>Tropical Depression Cristobal</b> Thursday June 04, 2020 4 PM CDT Advisory 13 NWS National Hurricane Center		<b>Current information: X</b> Center location 17.5 N 90.8 W Maximum sustained wind 35 mph Movement ESE at 3 mph		<b>Forecast positions:</b> ● Tropical Cyclone    ○ Post/Potential TC Sustained winds:    D < 39 mph S 39-73 mph    H 74-110 mph    M > 110 mph	
<b>Potential track area:</b> Day 1-3    Day 4-5		<b>Watches:</b> Hurricane    Trop Stm		<b>Warnings:</b> Hurricane    Trop Stm	
<b>Current wind extent:</b> Hurricane    Trop Stm					





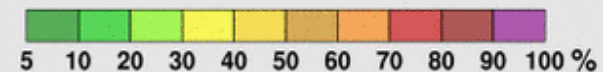
# Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Depression Cristobal  
Thu. Jun. 4, 2020 4 pm CDT  
Advisory 13

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





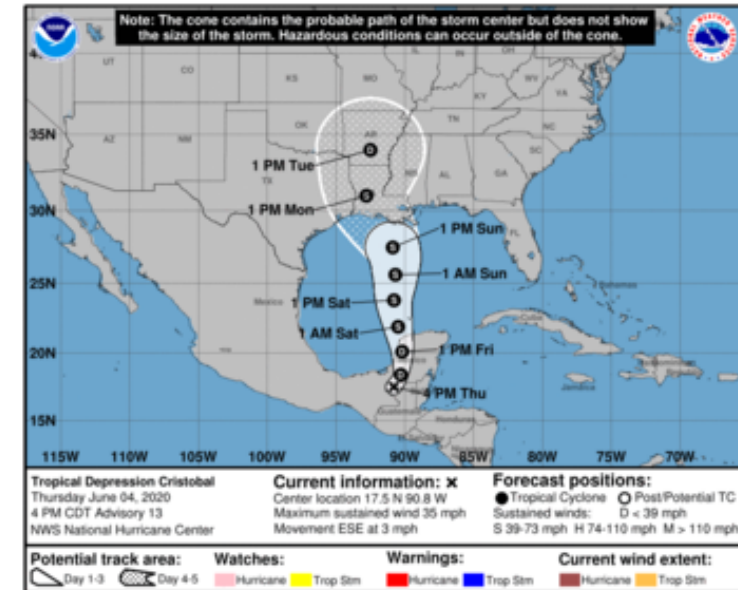
# Key Messages for Tropical Depression Cristobal

Advisory 13: 4:00 PM CDT Thu Jun 04, 2020



1. Damaging and deadly flooding has already been occurring in portions of Mexico and Central America. Cristobal is expected to produce additional extreme rainfall amounts through the end of the week. The heaviest additional rainfall is expected over far southern Mexico and portions of the Yucatan Peninsula, while also extending along the Pacific coast from Chiapas to Guatemala and El Salvador. This rainfall could cause widespread life-threatening flash floods and mudslides. Refer to products from your local weather office for more information.

2. Cristobal is forecast to re-emerge over the southern Gulf of Mexico on Friday and move northward over the central and northern Gulf of Mexico over the weekend. There is a risk of tropical storm force winds this weekend from Louisiana to the western Florida Panhandle and a risk of dangerous storm surge from Louisiana to the Florida Big Bend. These hazards, along with heavy rainfall, will arrive well in advance of and extend well east of Cristobal's center. Tropical storm and storm surge watches could be issued tonight or Friday.



For more information go to [hurricanes.gov](https://hurricanes.gov)



# Flood Watches

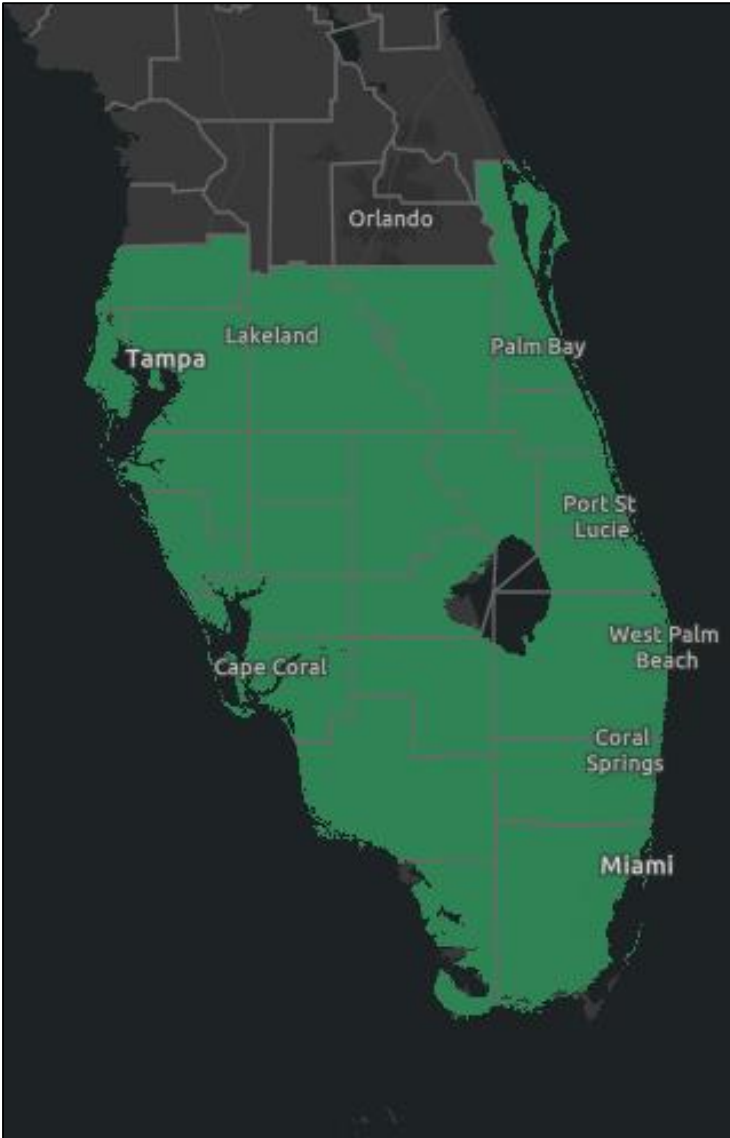
Through 4 PM EDT Saturday

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

Torrential downpours and wet to saturated soils will lead to some flooding, especially of urban, low-lying or poor drainage areas. Average rainfall of 2-4" is expected across the Peninsula with localized amounts of 6-8" possible.

Some parts of the Peninsula have seen 2-5" of rain over the last couple days, with 5-10+" locally. Additional rainfall could result in more flooding.

Additional Flood/Flash Flood Watches may be needed elsewhere across the state later this week into the weekend.

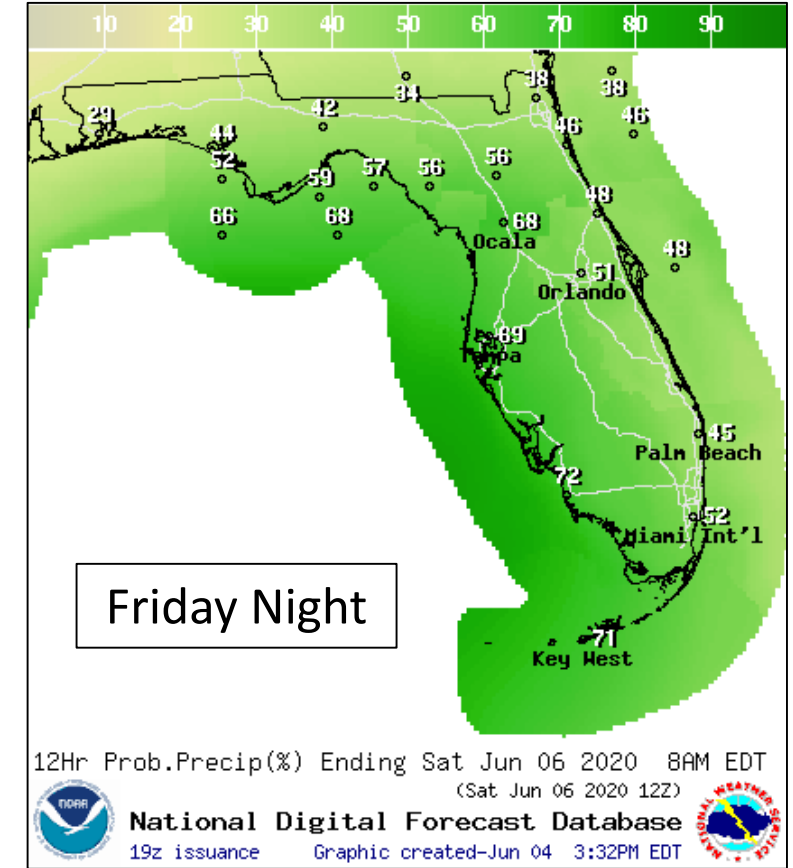
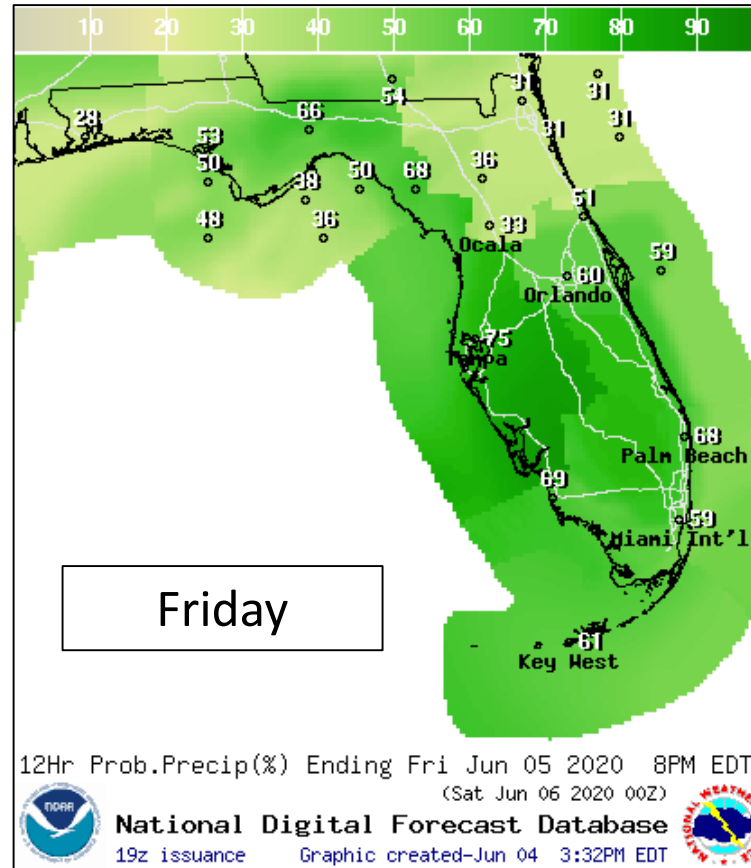
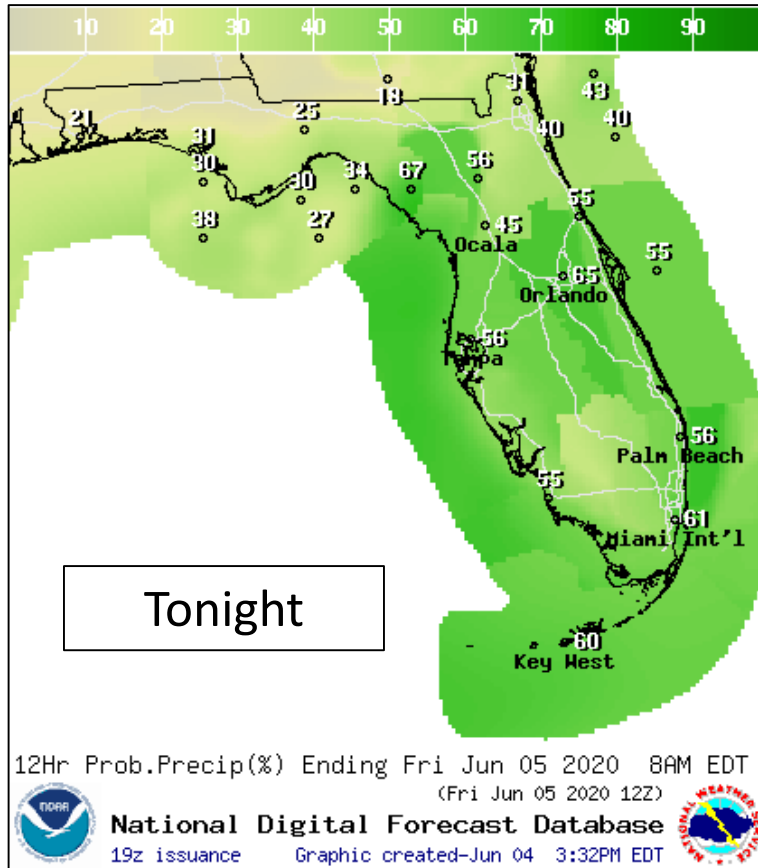






# Thursday - Friday

## Timing the Event – Not Cristobal Rainfall



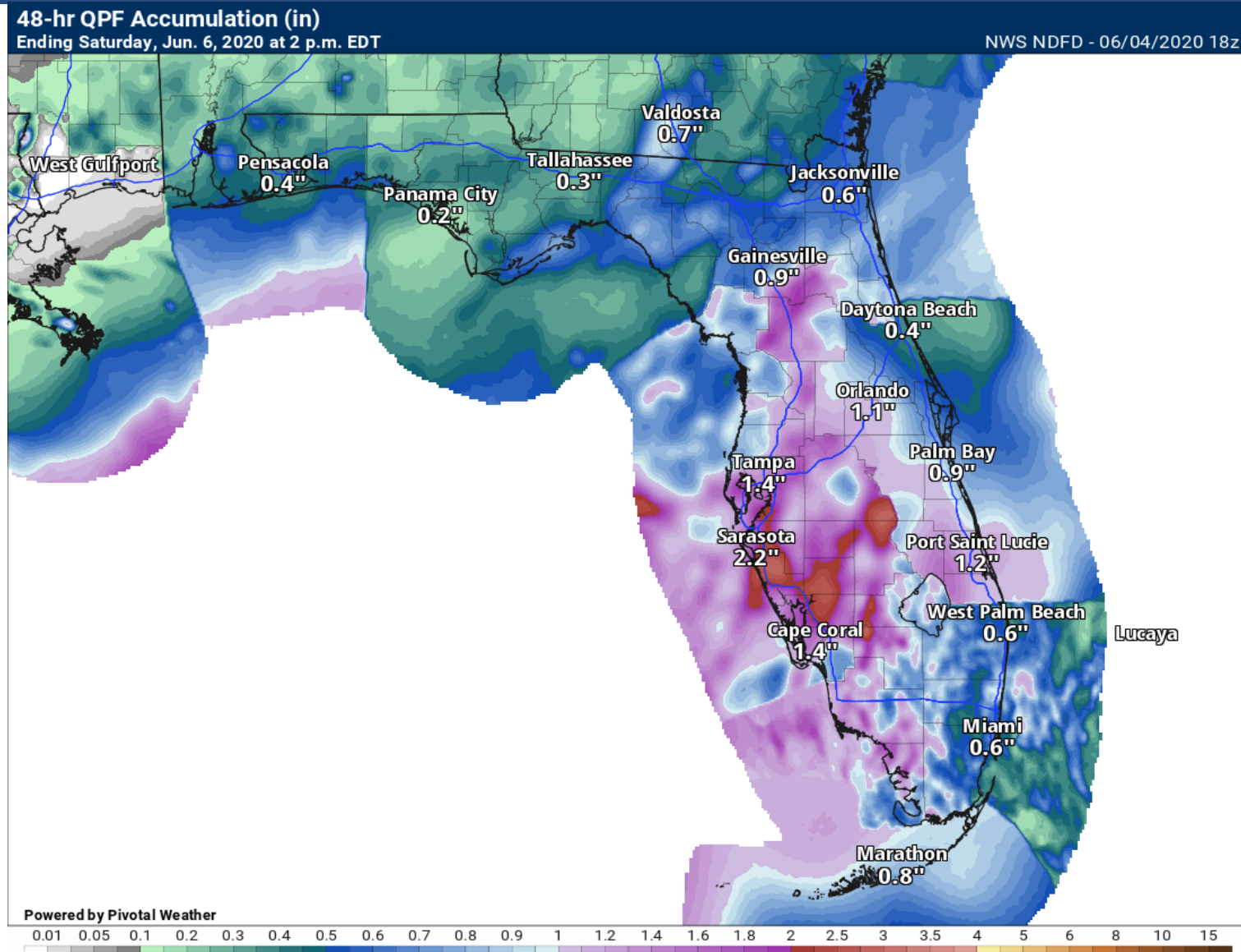
Rounds of showers and thunderstorms will continue across the state, with the best rain chances over the Peninsula, but rain chances will also begin to increase over North Florida. Locally heavy rainfall will be possible in any storms, but stronger thunderstorms may contain gusty winds.

**\*\*Localized flooding will be possible where heavier storms set up.\*\***



# Rainfall Totals Through Friday

## Timing the Event



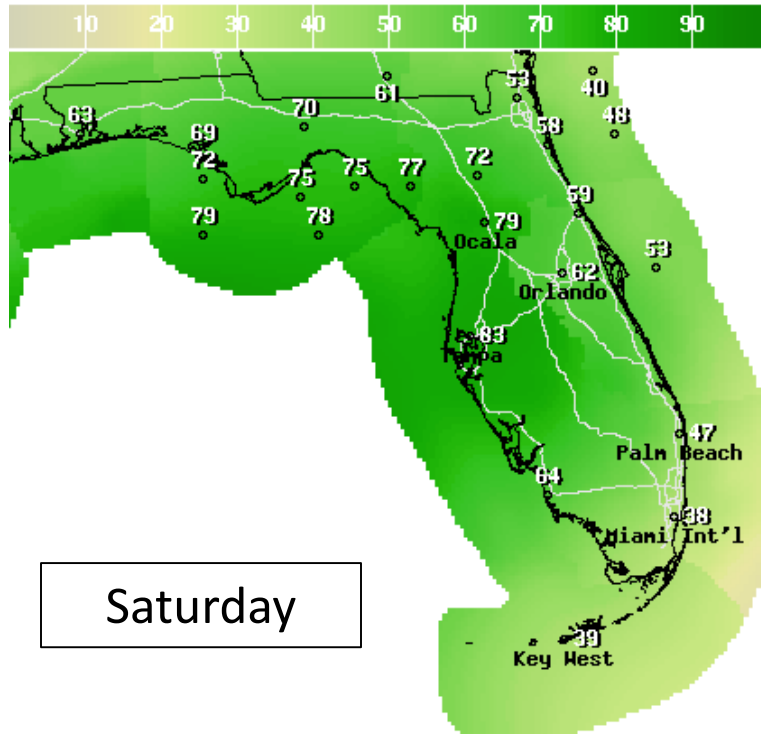
Through Saturday afternoon, a widespread 1 to 2.5" is expected across the Peninsula with lighter rainfall across North Florida. Locally higher amounts possible double or triple these amounts, especially where storms train over the same locations.



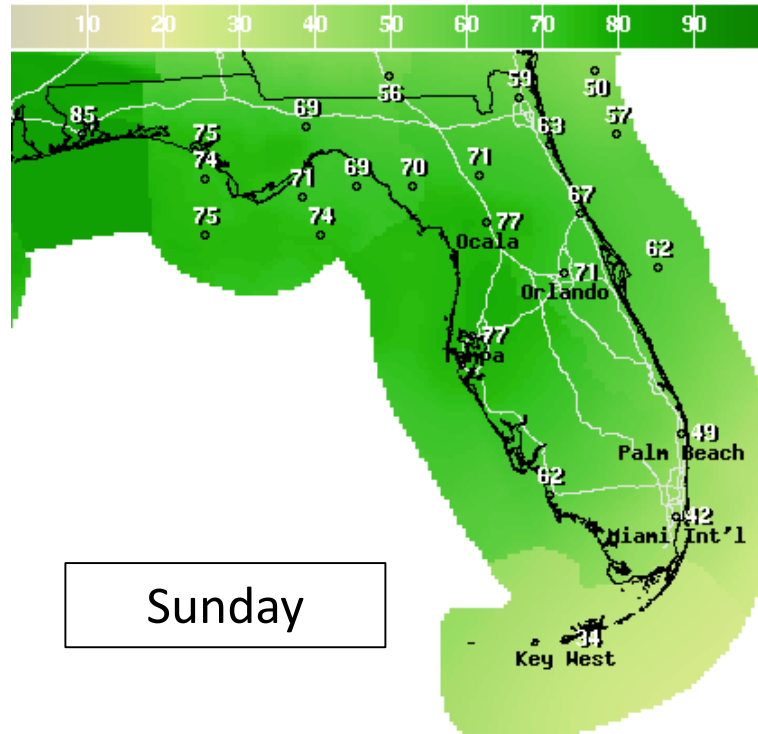


# Saturday - Monday

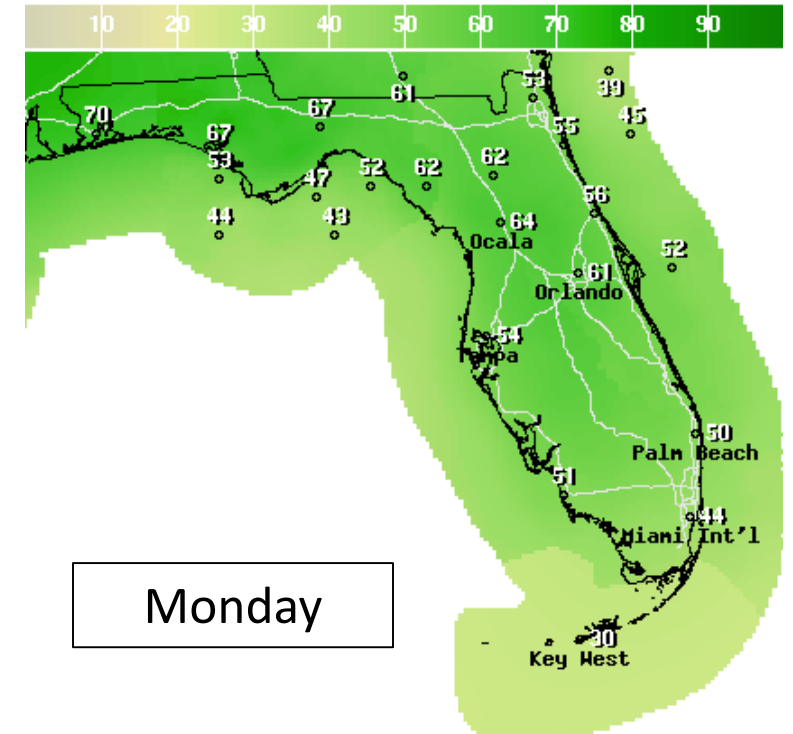
## Timing the Event – Cristobal Rainfall



12Hr Prob.Precip(%) Ending Sat Jun 06 2020 8PM EDT  
(Sun Jun 07 2020 00Z)  
National Digital Forecast Database  
19z issuance Graphic created-Jun 04 3:33PM EDT



12Hr Prob.Precip(%) Ending Sun Jun 07 2020 8PM EDT  
(Mon Jun 08 2020 00Z)  
National Digital Forecast Database  
19z issuance Graphic created-Jun 04 3:33PM EDT



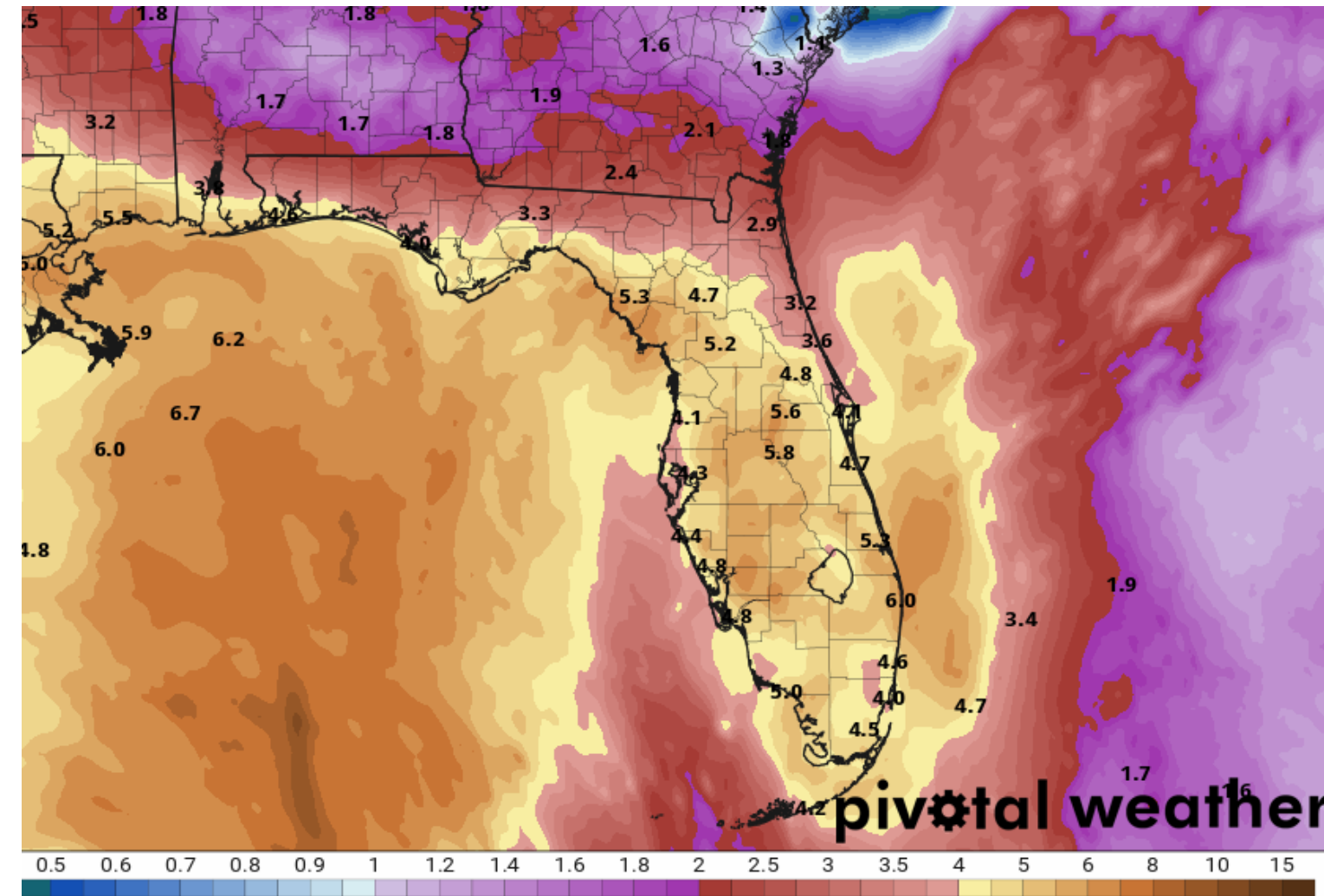
12Hr Prob.Precip(%) Ending Mon Jun 08 2020 8PM EDT  
(Tue Jun 09 2020 00Z)  
National Digital Forecast Database  
19z issuance Graphic created-Jun 04 3:33PM EDT

Rounds of rain and with isolated thunderstorms are possible through the weekend as Cristobal approaches and makes landfall along the northern Gulf Coast. Heavier bands of rain may also set up across parts of the state, which will cause very heavy rain in localized locations. **The threat for flash flooding is increasing.** However, the forecast is very dependent on the track and evolution of Cristobal.



# Rainfall Totals Through Tuesday

## Timing the Event

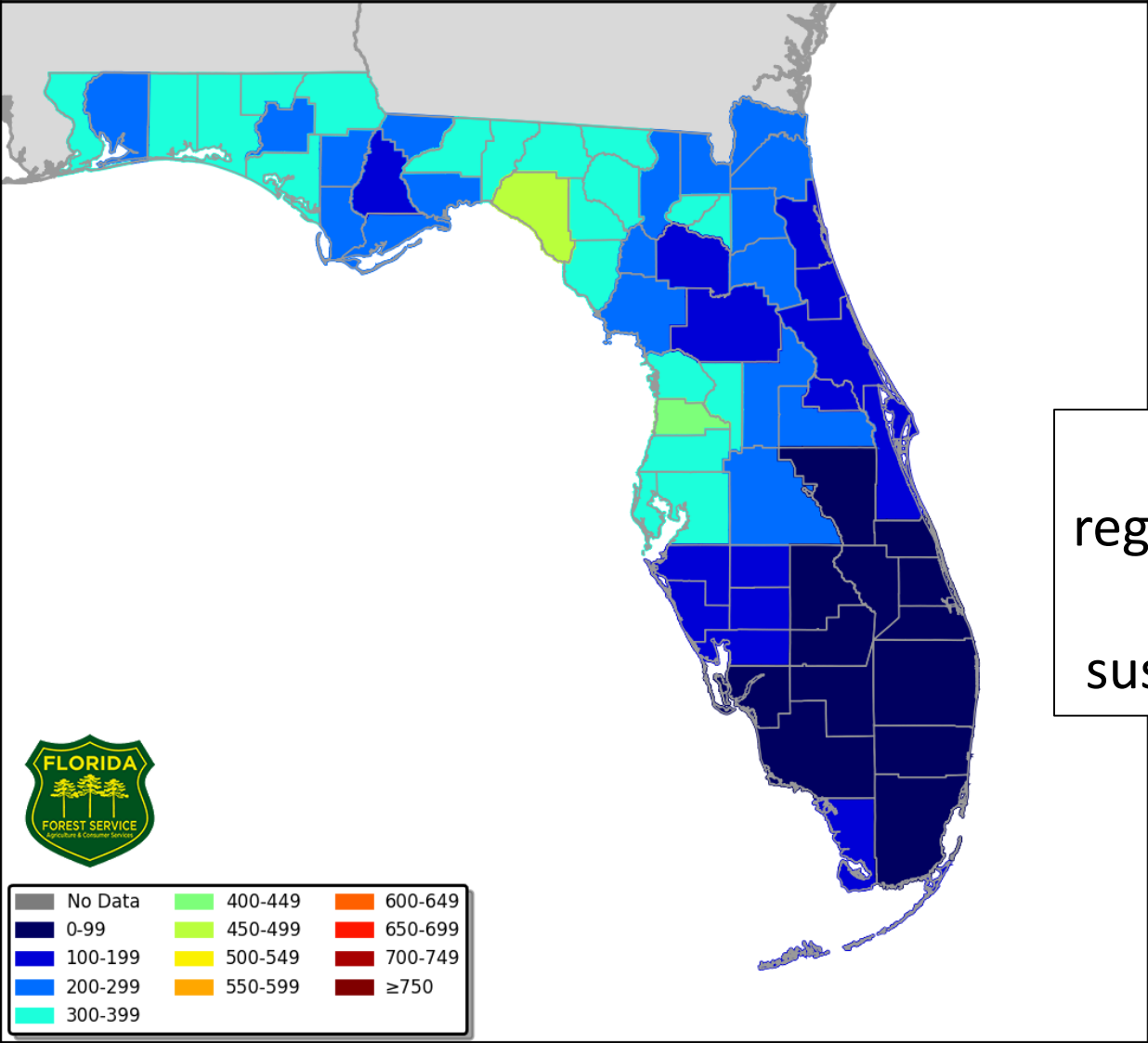


Through next Tuesday, widespread rainfall totals of 3-6" are expected across much of the state. Locally higher totals of 6-12" are possible, especially where heavier bands set up.

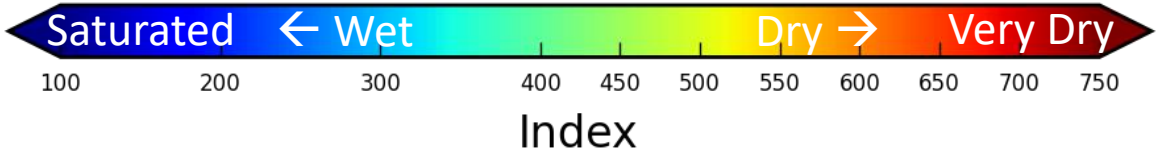
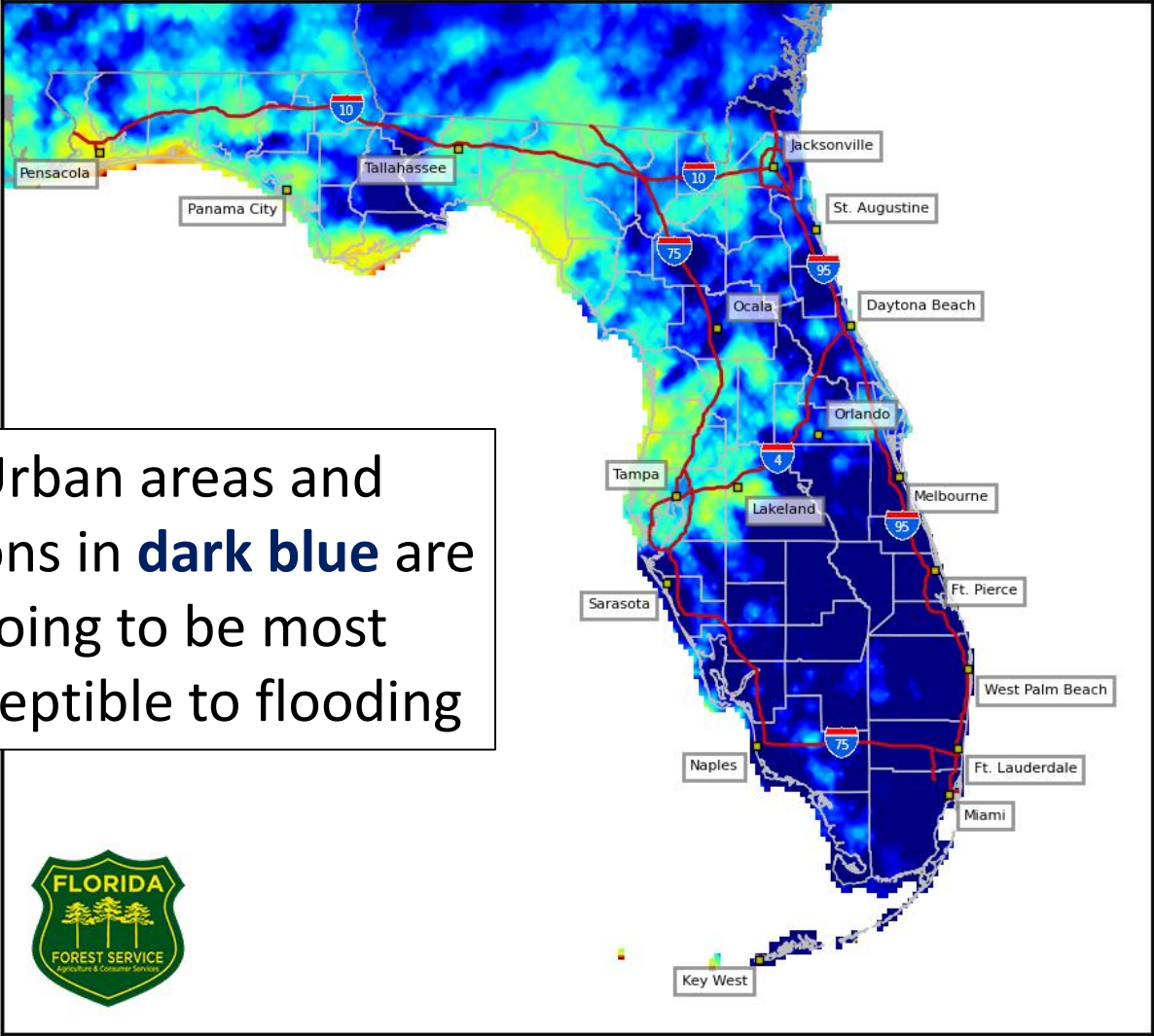
This could result in flash flooding, especially in urban areas. Training rain bands will also increase the risk of flooding. River flooding will also be possible across North Florida this weekend into next week.



Keetch Byram Drought Index (KBDI)  
County Averages for June 04, 2020



4 km Resolution KBDI  
Statewide  
June 04, 2020

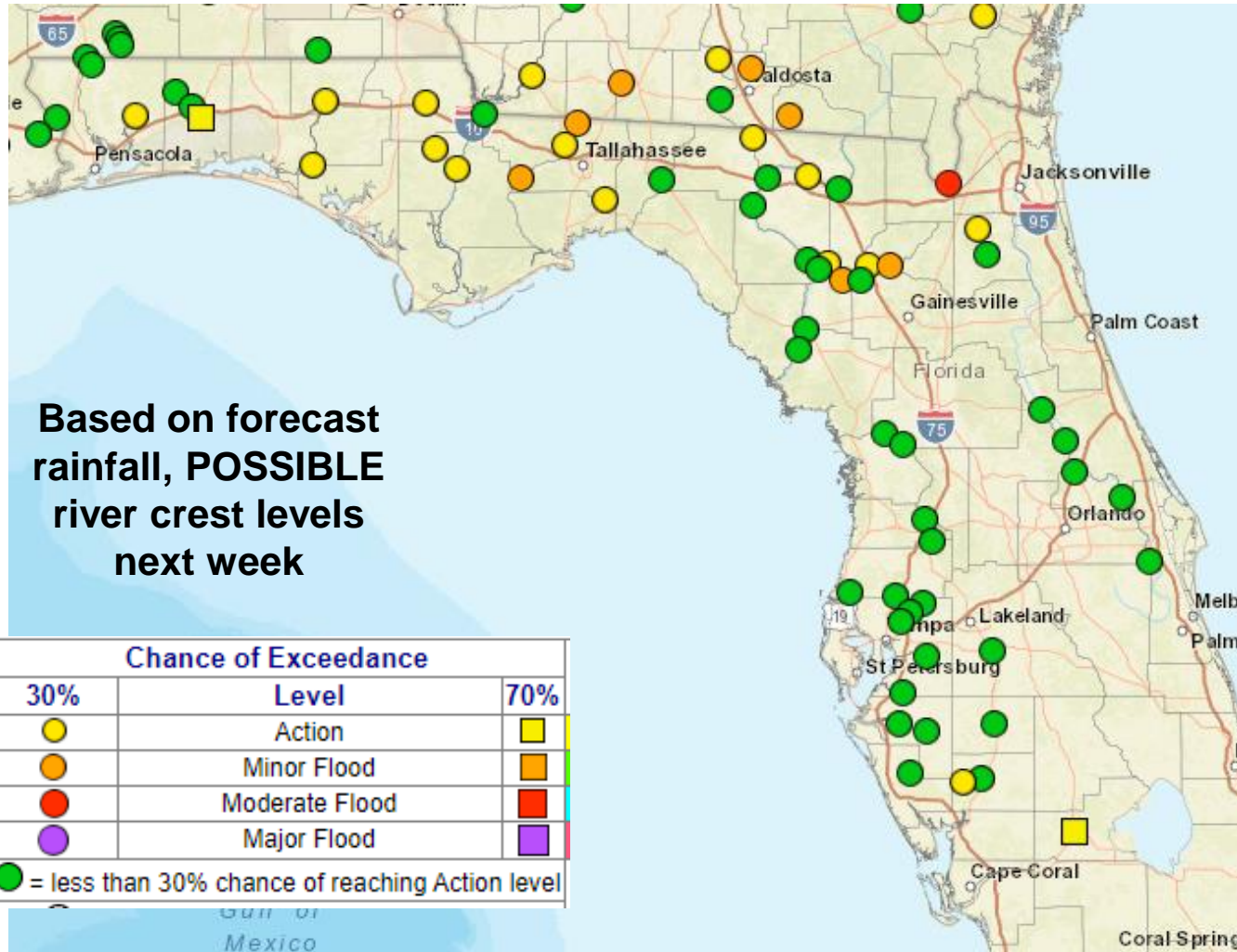


[KBDI – Full Report from the FFS](#)



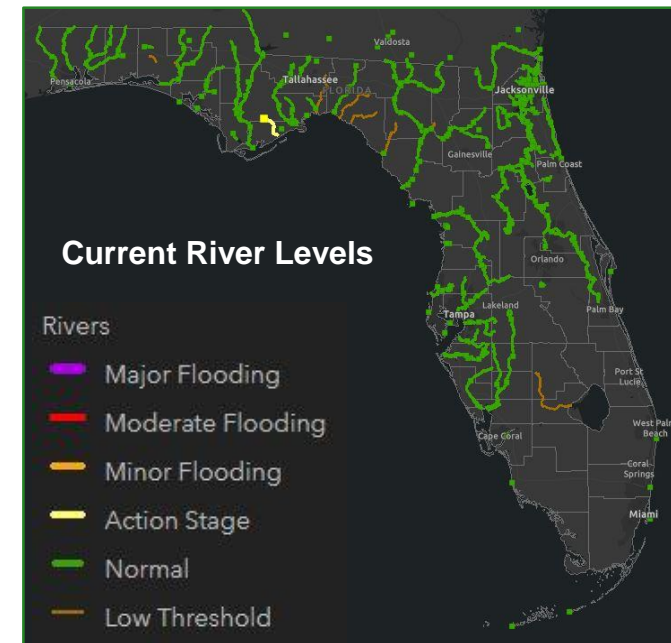
# Possible River Flooding

## Starting Early Next Week



Widespread minor and isolated moderate river flooding seems likely starting early next week due to the forecasted rainfall totals.

Current low river levels across the state will help to minimize river impacts.





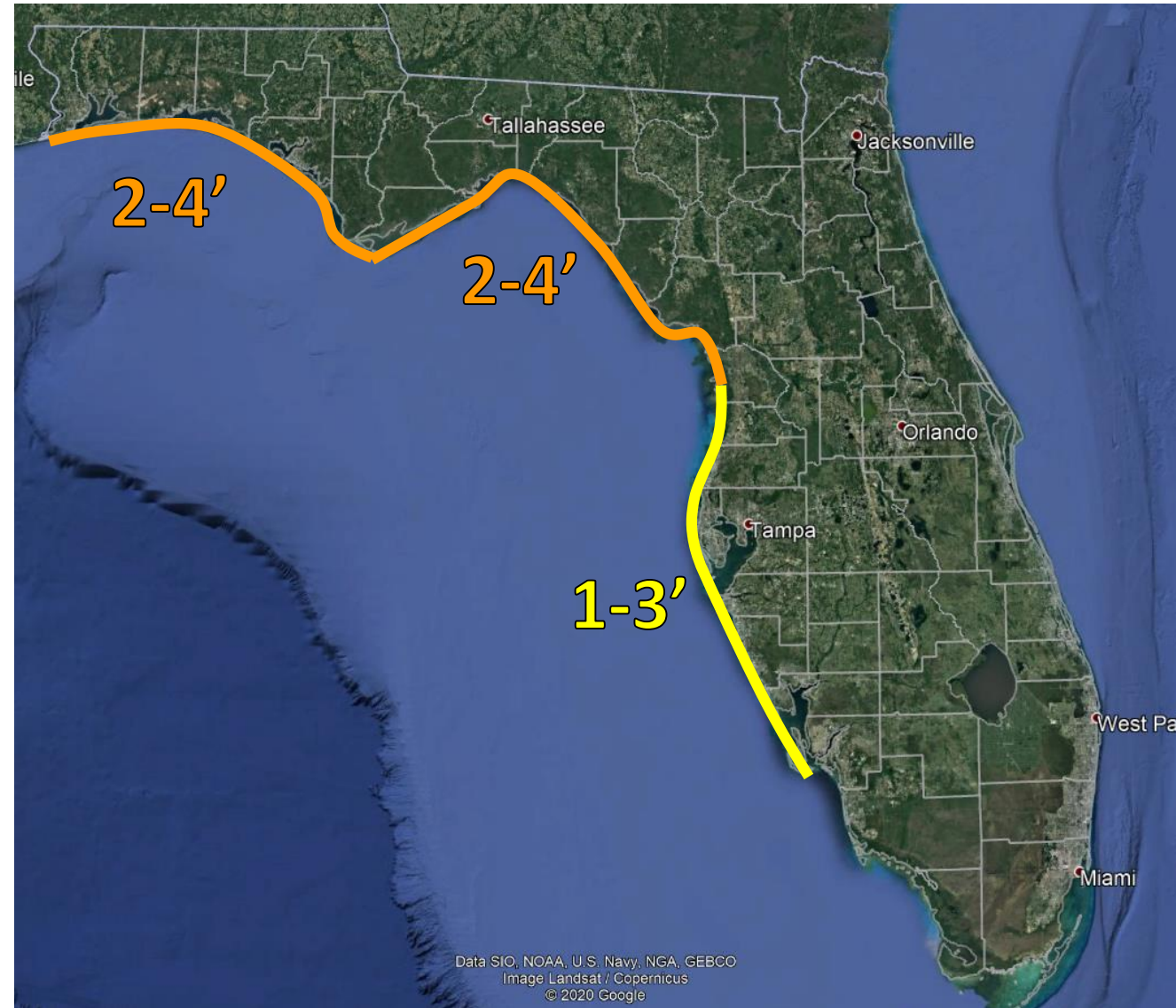


# Possible Coastal Flooding

## This Weekend

Strengthening, prolonged south to southeast winds well ahead of Cristobal will result in some storm surge along the Gulf Coast. Exact storm surge values are uncertain and will be dependent on the track and evolution of Cristobal.

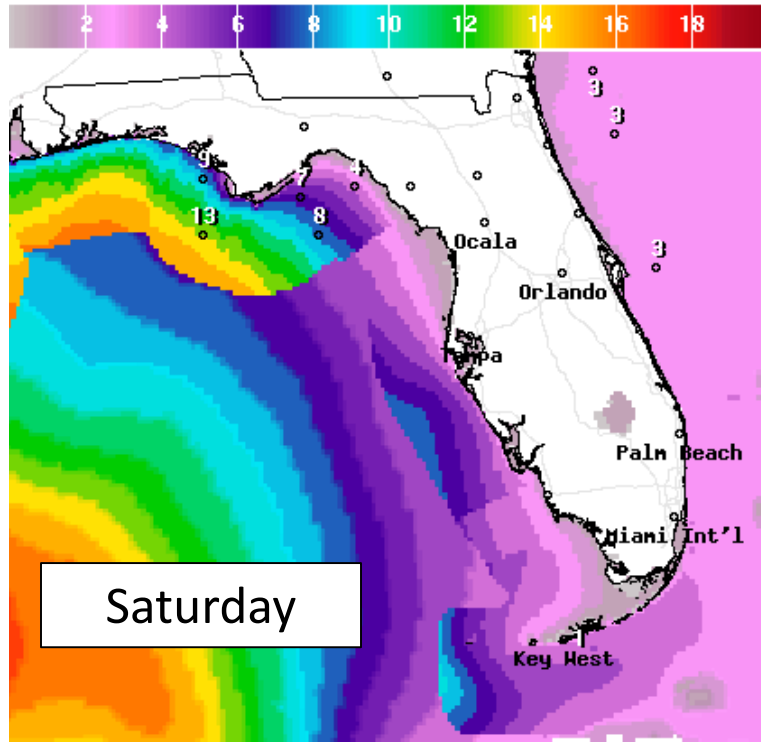
**\*\*\*Storm Surge Watches may be issued for parts of the Panhandle and Big Bend.\*\*\***





# Forecast Wave Heights

## This Weekend

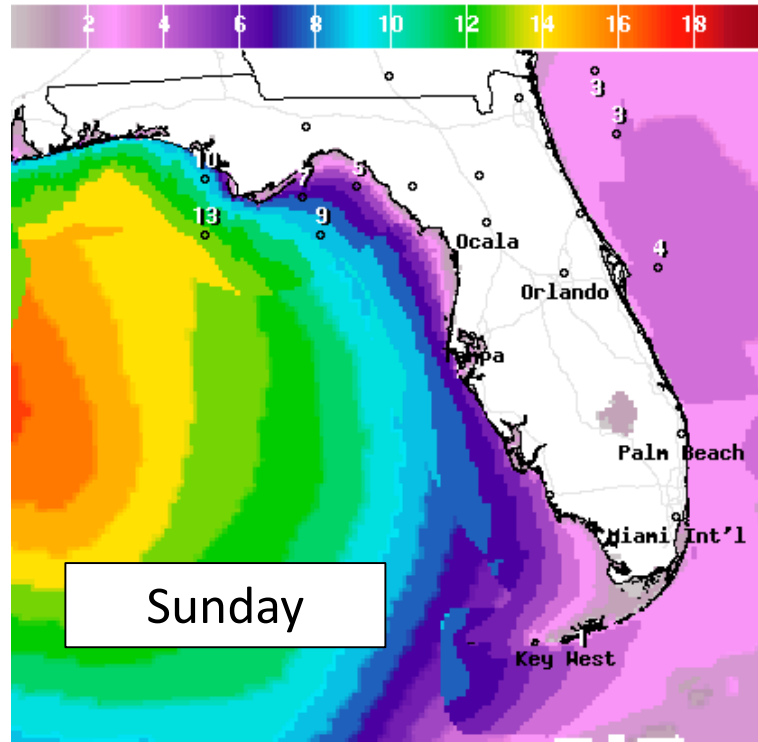


Saturday

Wave Height(ft) Ending Sat Jun 06 2020 8PM EDT  
(Sun Jun 07 2020 00Z)



National Digital Forecast Database  
20z issuance Graphic created-Jun 04 4:20PM EDT

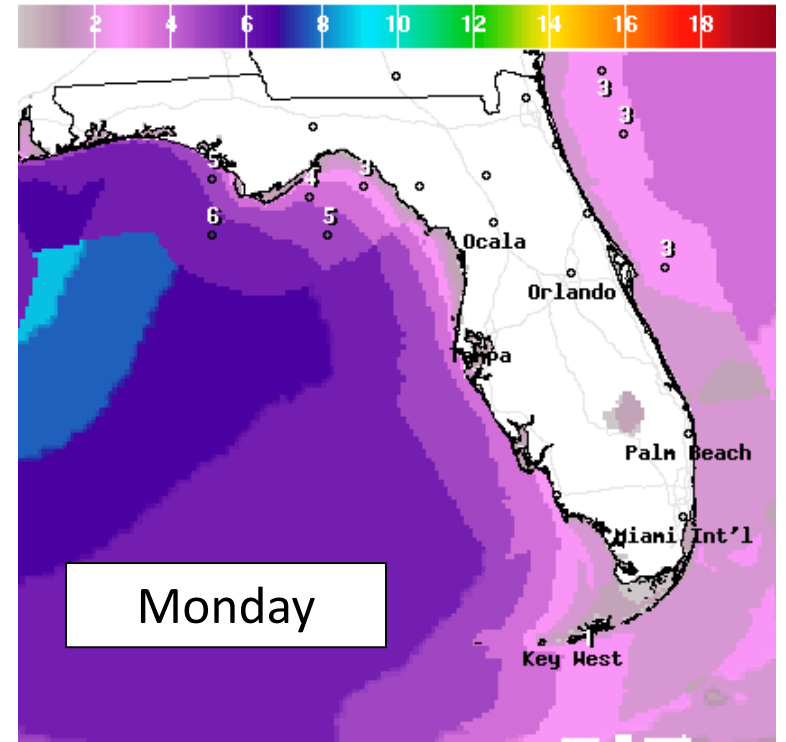


Sunday

Wave Height(ft) Ending Sun Jun 07 2020 2PM EDT  
(Sun Jun 07 2020 18Z)



National Digital Forecast Database  
19z issuance Graphic created-Jun 04 3:28PM EDT



Monday

Wave Height(ft) Ending Mon Jun 08 2020 2PM EDT  
(Mon Jun 08 2020 18Z)



National Digital Forecast Database  
19z issuance Graphic created-Jun 04 3:28PM EDT



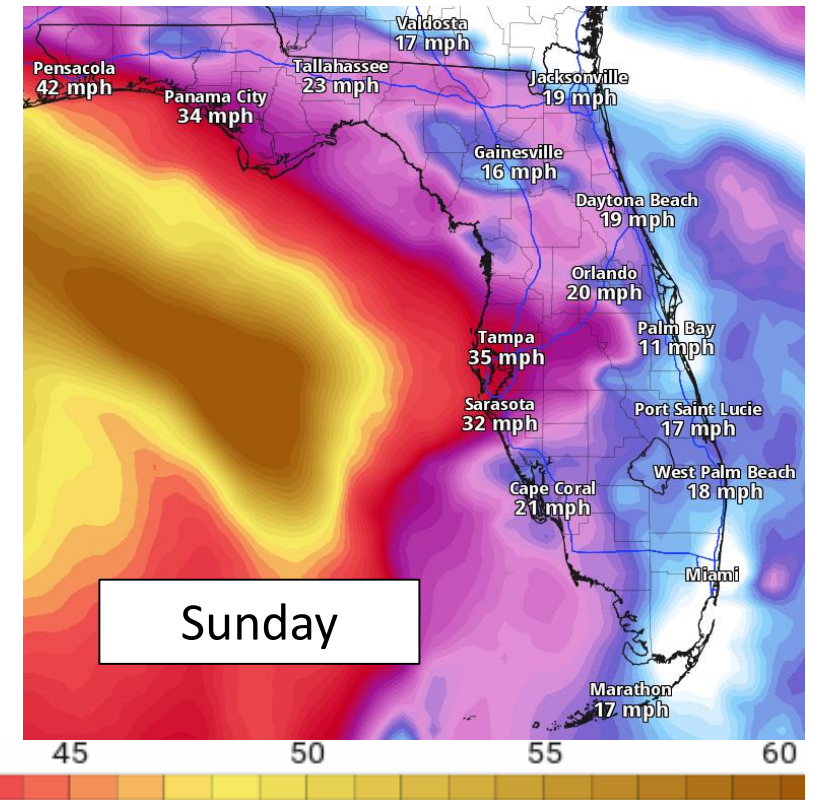
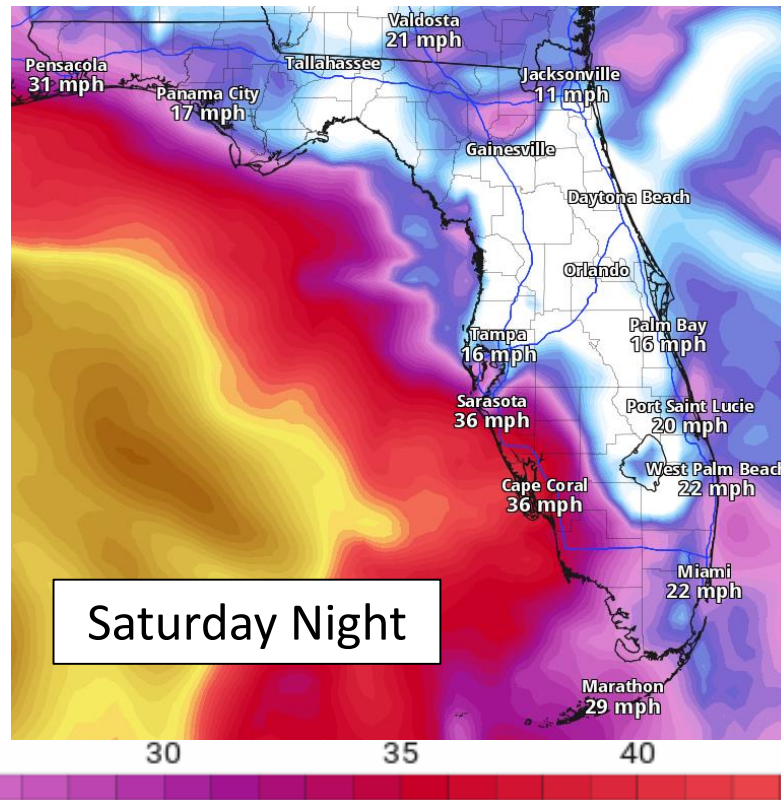
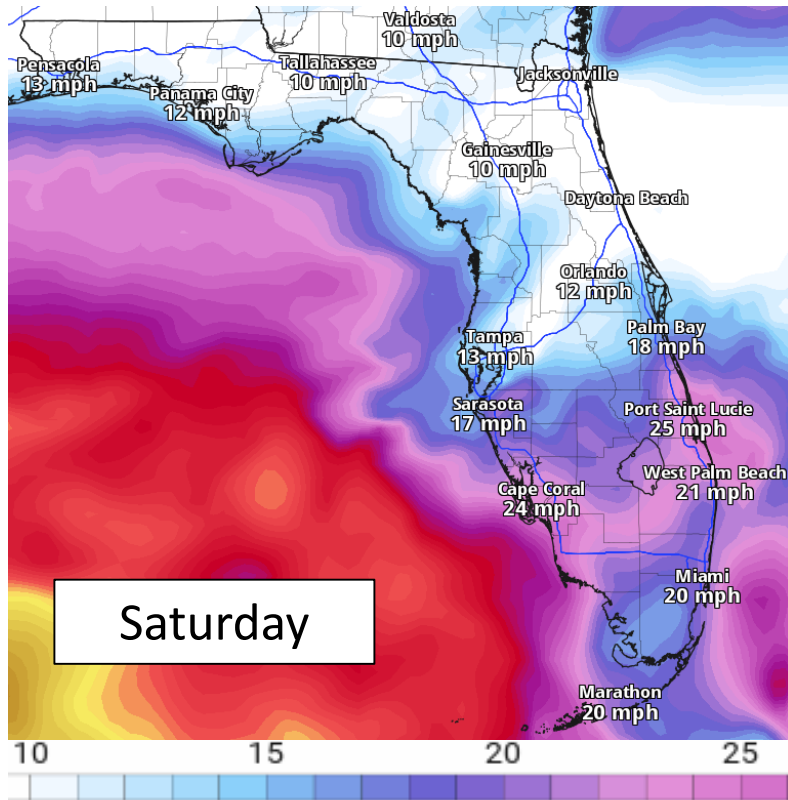
Waves will build this weekend as Cristobal moves northward through the Gulf of Mexico. High surf of 6-12 feet will be possible at Panhandle Beaches with 4-8 feet along the West Coast. This will result in dangerous rip currents along all Gulf beaches. Minor beach erosion is also possible. Minor coastal flooding will also be possible this weekend with a persistent south to southeast wind.





# Model Forecast Wind Gusts

Exact wind gusts will vary in time, magnitude, and location.



Winds will begin increasing Saturday into Sunday as Cristobal approaches the northern Gulf Coast. The wind field is also expected to expand on the eastern side of Cristobal's center. This may result in some gusts to near tropical-storm-force, especially in rain bands.

**\*\*\*A Tropical Storm Watch may be issued for parts of the Florida Panhandle.\*\*\***



# Summary

## **Tropical Depression Cristobal**

- As of 5 PM ET, the center of Cristobal is located over northern Guatemala, or about 775 miles southwest of Key West, FL, moving east-southeast at 3 mph.
- Maximum sustained winds have decreased to 35 mph. Cristobal will meander over the Yucatan Peninsula over the next couple of days before eventually lifting northward back into the Gulf of Mexico on Friday.
- Cristobal will likely re-strengthen to a tropical storm Friday once it emerges into the Gulf of Mexico
- This weekend, the system will continue to move northward and will approach the northern Gulf Coast Sunday/Monday. Cristobal will also expand as it moves northward.
- Indirectly related to the system, tropical moisture will increase across the Gulf Coast through the end of the week, raising daily rain chances.

## **Florida Outlook:**

- Cristobal will have no direct impacts to Florida through Friday, but widespread rainfall is likely by this weekend.
- Rounds of showers and thunderstorms associated with a plume of tropical moisture will result in a threat of localized flash flooding.
- A widespread 3-6" of rain is forecast to fall across the state over the next week. This will come from multiple rounds of rainfall over multiple days. Rain bands and training thunderstorms will result locally higher amounts, perhaps up to 6-12".
- A primary rain band may set up across somewhere across North Florida with other rain bands elsewhere. This will create a local maximum in rainfall totals and a flash flood threat.
- Storm surge may cause minor to moderate coastal flooding along the Panhandle, Big Bend, and Nature Coast. Water levels could be as high as 2-4' above normal high tide in the Panhandle and Big Bend and 1-3' along the West Coast.
- Gusty winds, perhaps to tropical storm force, will be possible in coastal parts of the western Panhandle.
- Tropical Storm and Storm Surge Watches may be issued tonight or Friday for parts of the Panhandle and Big Bend.
- Dangerous rip currents and minor beach erosion are possible at Gulf Coast beaches.

The next briefing packet will be sent out Friday morning with the 11 AM ET 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



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State Meteorological Support Unit

Florida Division of Emergency Management

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