



TROPICAL UPDATE



5:00 PM EDT

Friday, August 13, 2021

Tropical Depression Fred

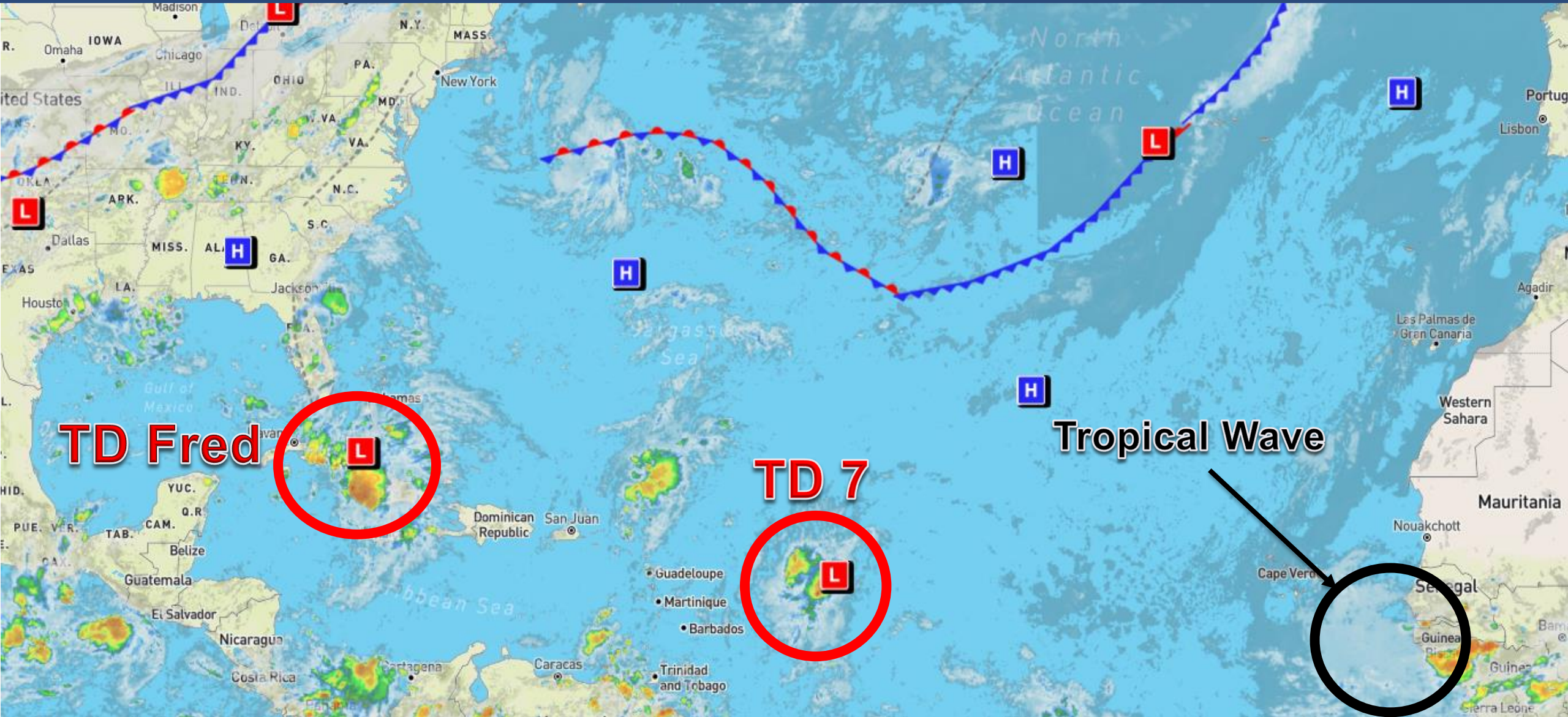
Tropical Depression #7

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



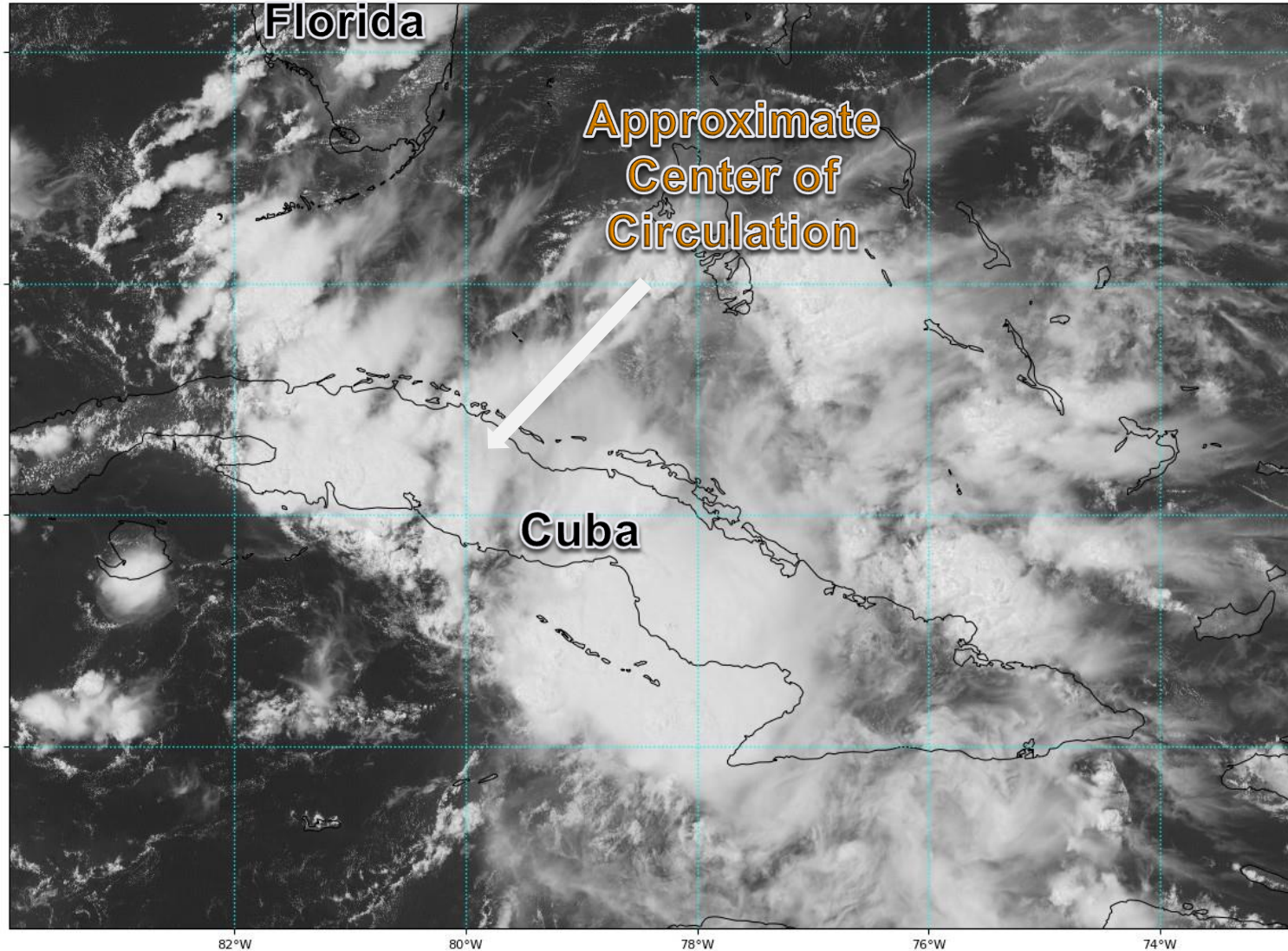


Satellite Imagery

Tropical Depression Fred

GOES-16 Channel 2 (visible) Reflectance at 19:07Z Aug 13, 2021

TROPICALTIDBITS.COM

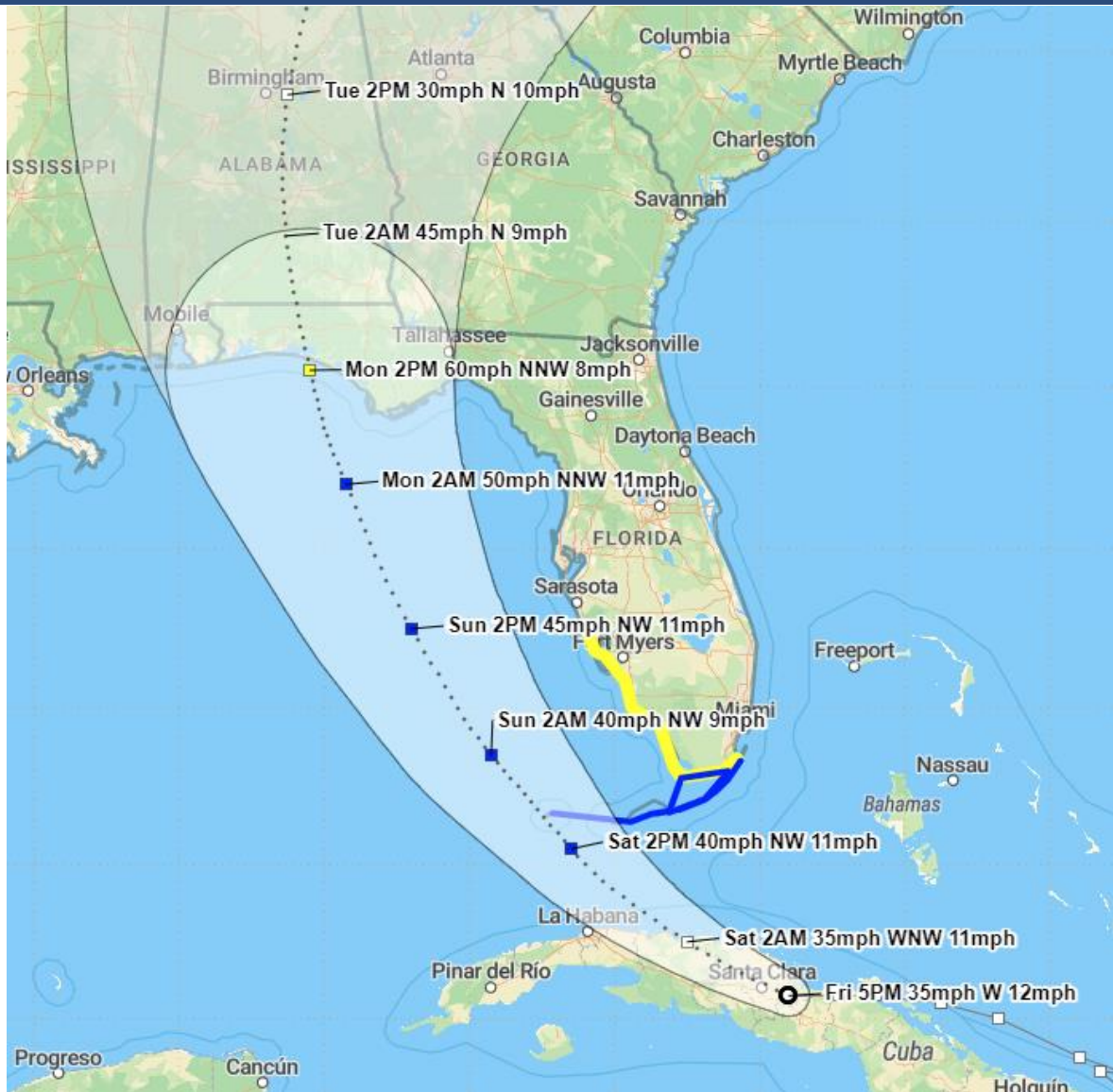


The center of Fred is located inland over central Cuba, with the apparent center of circulation obscured by thunderstorms lifting over the mountains of central Cuba. The system remains disorganized, but as it moves toward the Florida Keys, more organized storm activity should begin to concentrate again near the center and allow it to slowly strengthen or a new center may form underneath the storm activity in the Florida Straits.



Official Forecast Track

From the National Hurricane Center



- The center of Fred is located over central Cuba, or about 210 miles southeast of Key West, Florida.
- Maximum sustained winds remain around 35 mph. Little change in strength is expected tonight. After that, slow strengthening is forecast, and Fred could become a tropical storm again on Saturday.
- Fred is moving west at 12 mph, but a west-northwest motion is expected to resume tonight, followed by a turn toward the northwest on Saturday.
- On the forecast track, Fred is expected to move along the north coast of central Cuba through tonight, be near the lowers Florida Keys on Saturday, in the eastern Gulf of Mexico Sunday make landfall along the Florida Panhandle coast on Monday.

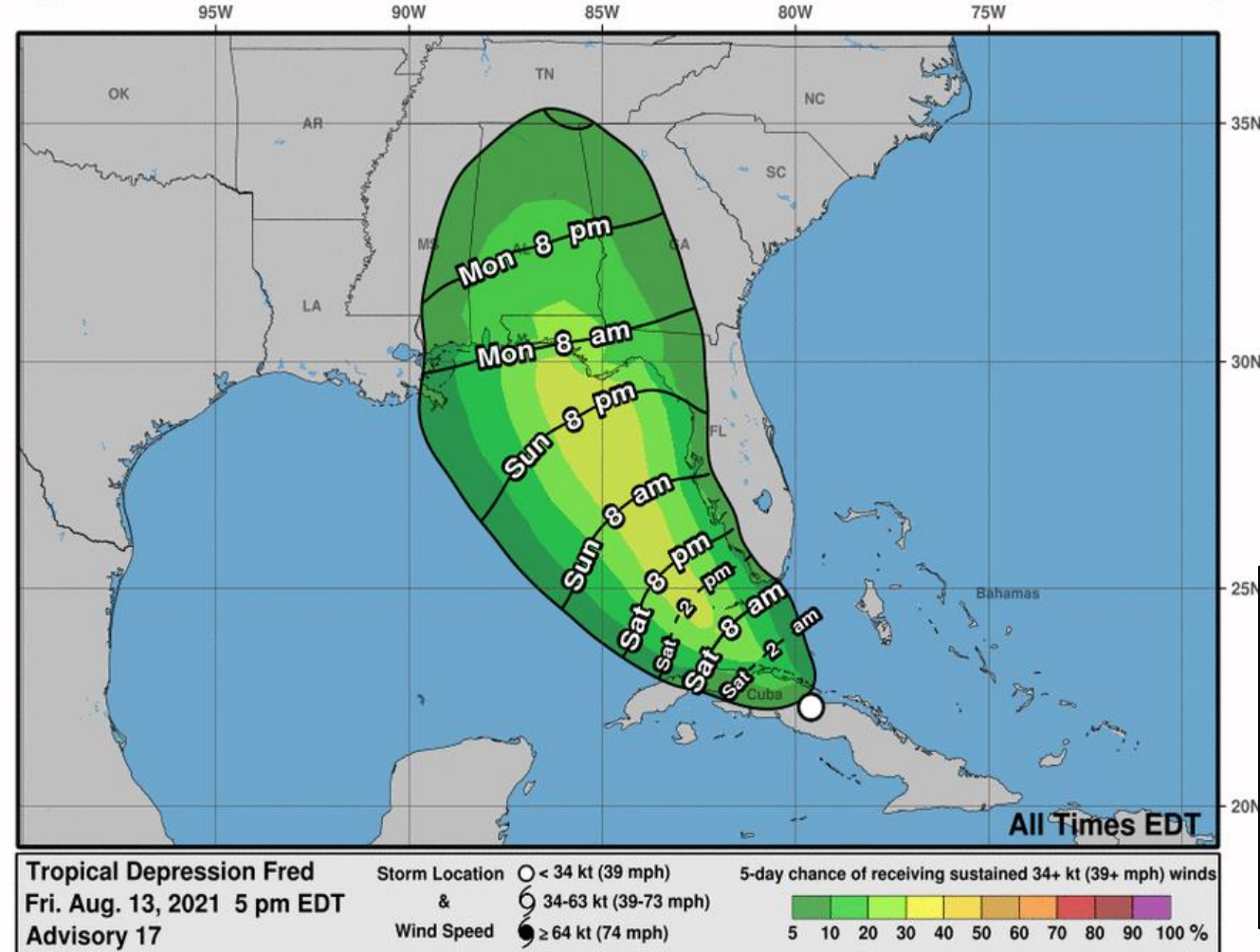


Time of Arrival & Wind Speed Probabilities

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

West Palm Beach

4%

-7%

Key West

27%

-7%

Naples

11%

-27%

Ft. Myers

3%

-15%

Tampa

12%

-17%

Cedar Key

16%

-11%

Tallahassee

15%

-2%

Apalachicola

33%

+6%

Panama City

34%

+12%

Destin

20%

Pensacola

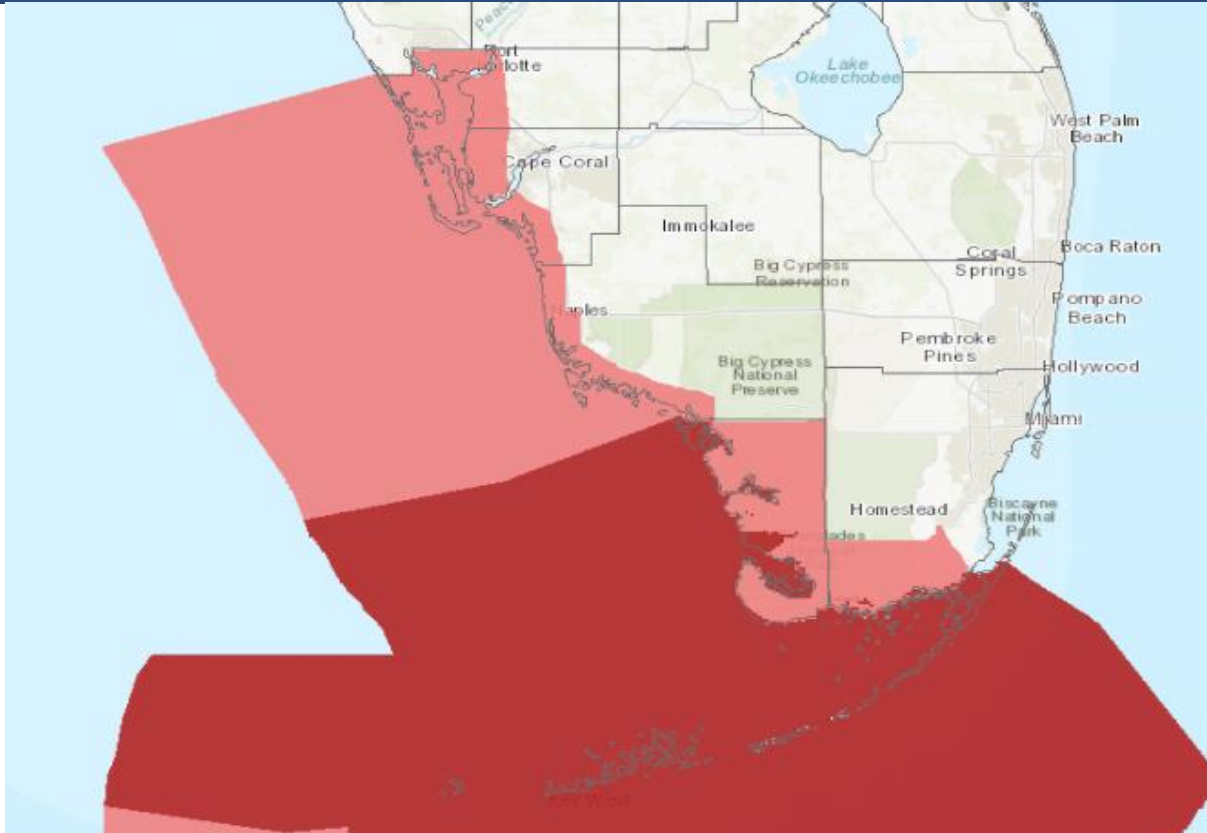
18%

+10%

There is a 1 in 3 chance of tropical storm force winds for the Florida Big Bend and eastern Panhandle coast. The earliest reasonable arrival time of tropical storm force winds in the Keys is late tonight, but are most likely to begin Saturday morning and affect coastal portions of Southwest Florida during the day Saturday. Winds arrive on Sunday night and early Monday in the Panhandle, but could occur as early as Sunday evening.



Active Tropical Watches/Warnings



WATCH

Tropical storm and/or hurricane conditions are POSSIBLE in the "watch area"

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

WARNING

Tropical storm and/or hurricane conditions are EXPECTED in the "warning area"

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

- Additional watches likely to be issued for the Panhandle on Saturday.
- Tropical Storm Warning in effect for the entire Florida Keys
 - Counties: Monroe
- Tropical Storm Watch for Southwest Florida
 - Counties: Coastal Collier, extreme south Miami-Dade, mainland Monroe, coastal Lee, western Charlotte

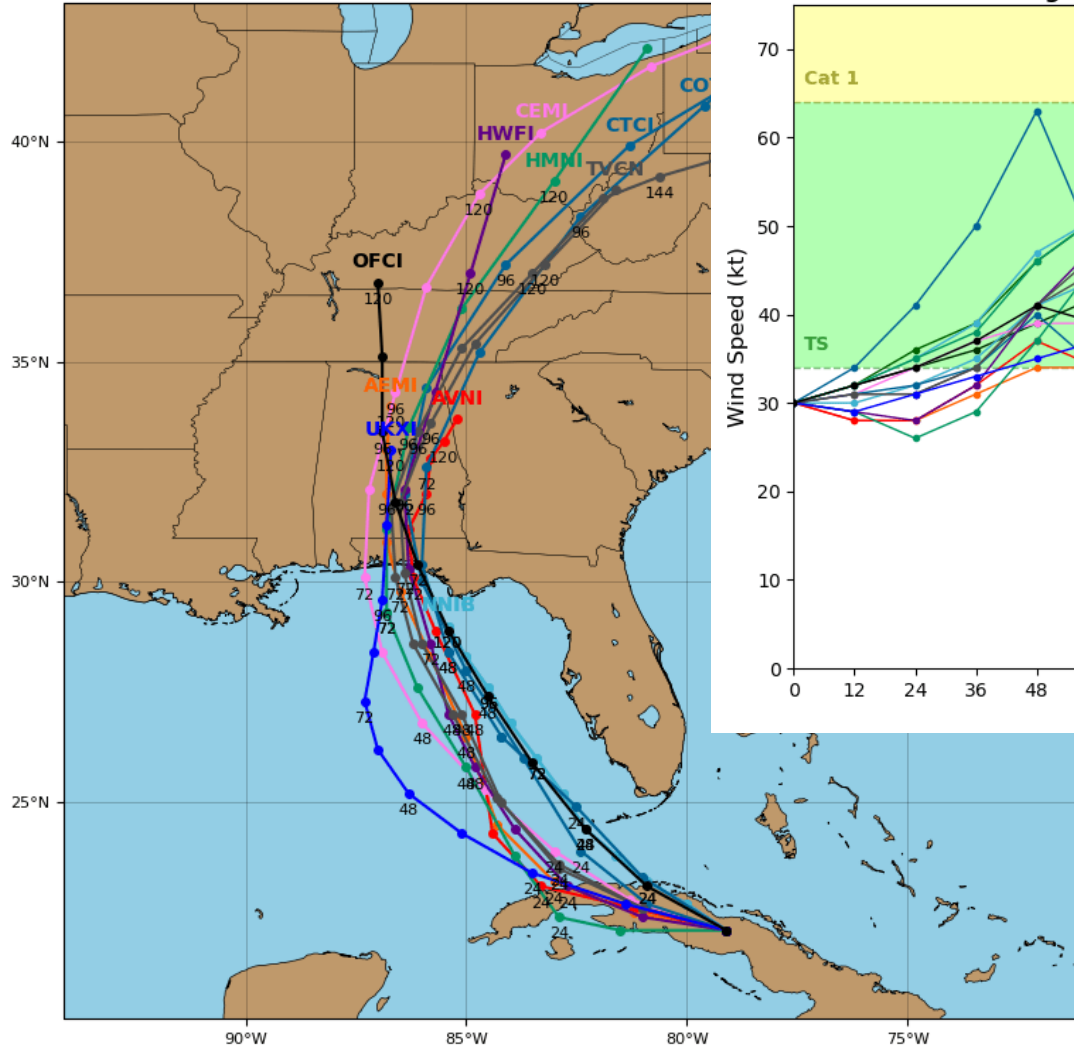


Model Forecast Tracks & Intensity

Dynamical and Statistical Models – T.D. Fred

Tropical Depression 06L Model Track

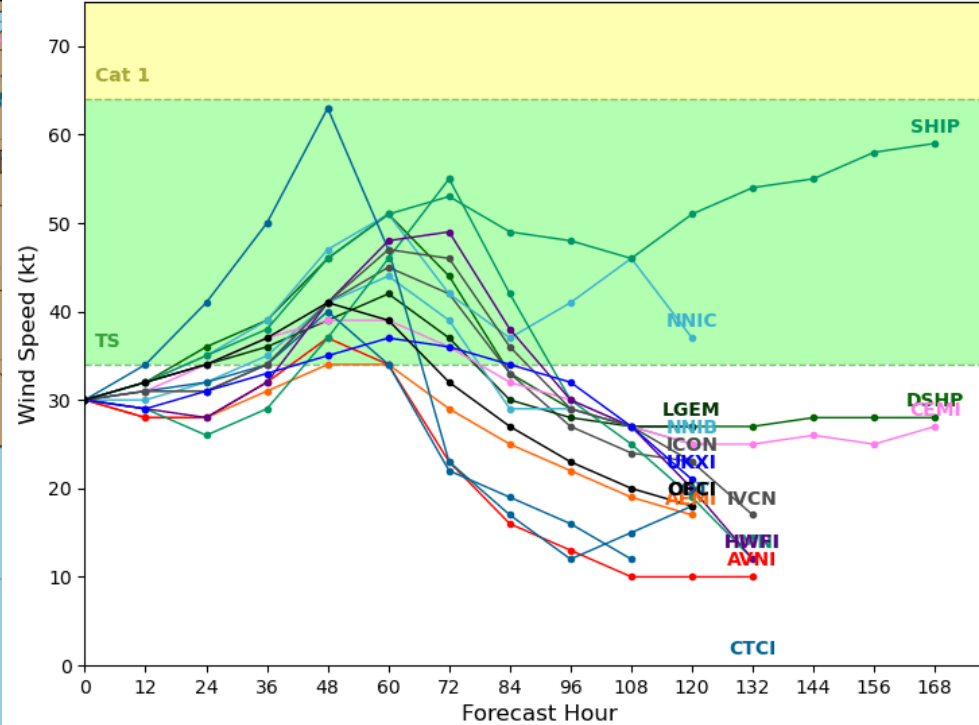
Initialized at 18z Aug 13 2021



Tropical Depression 06L Model Intensity Guidance

Initialized at 18z Aug 13 2021

Levi Cowan - tropicaltidbits.com



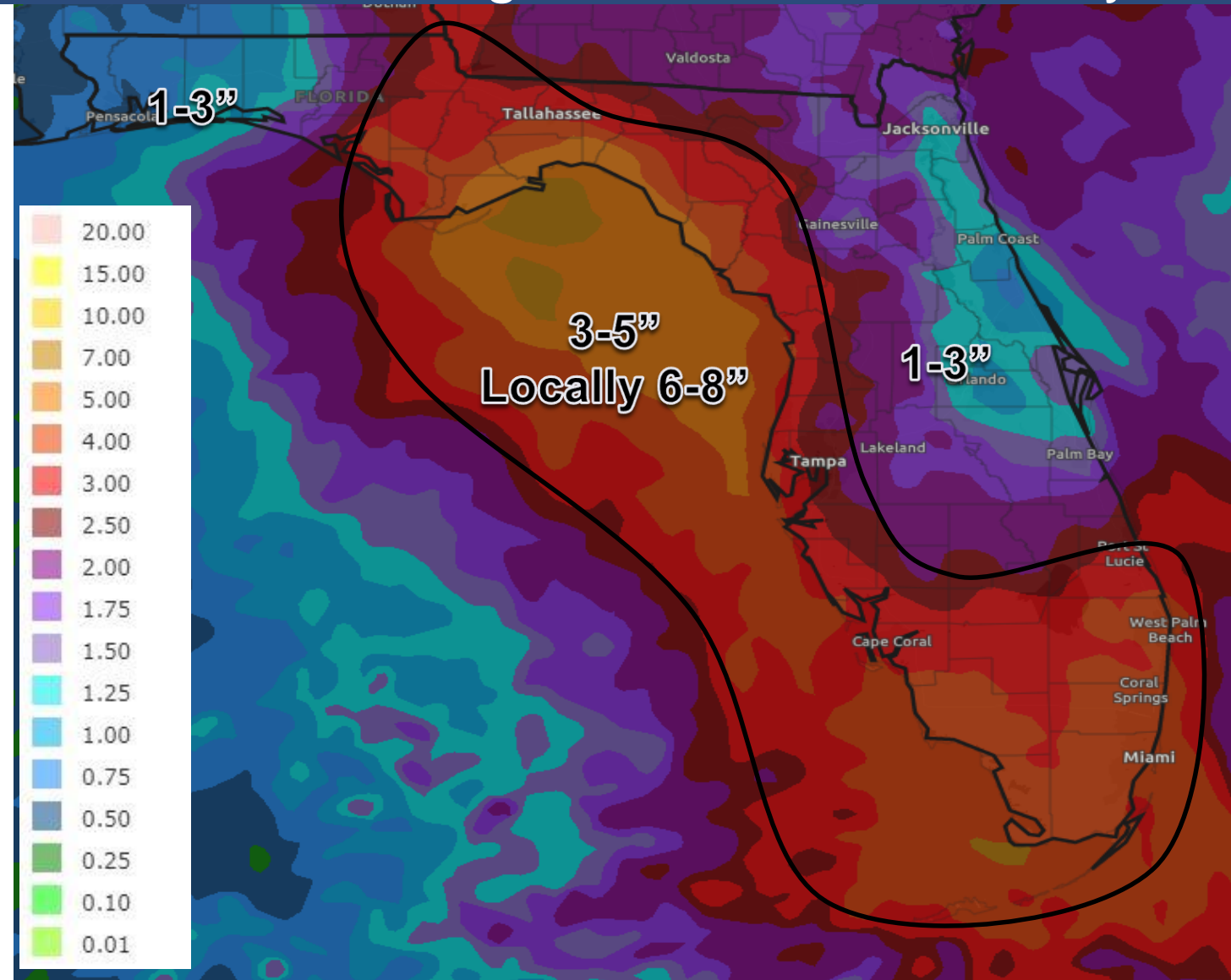
Due to Fred's westward motion today into Cuba, computer models have shifted westward this afternoon, with a potential track west of the Keys and making landfall in the central or western Florida Panhandle.

Given the increased land interaction with Cuba, Fred is likely to remain weak but intensify into a tropical storm on Saturday through Sunday before making landfall in Florida.



Rainfall Totals Next 5 Days

Ending 8 AM ET Wednesday



The main threat to Florida from Fred will be heavy rainfall, first affecting much of South Florida starting on Friday night and continuing into Sunday morning. The heavy rain threat will then move into Central and North Florida Sunday and Monday.

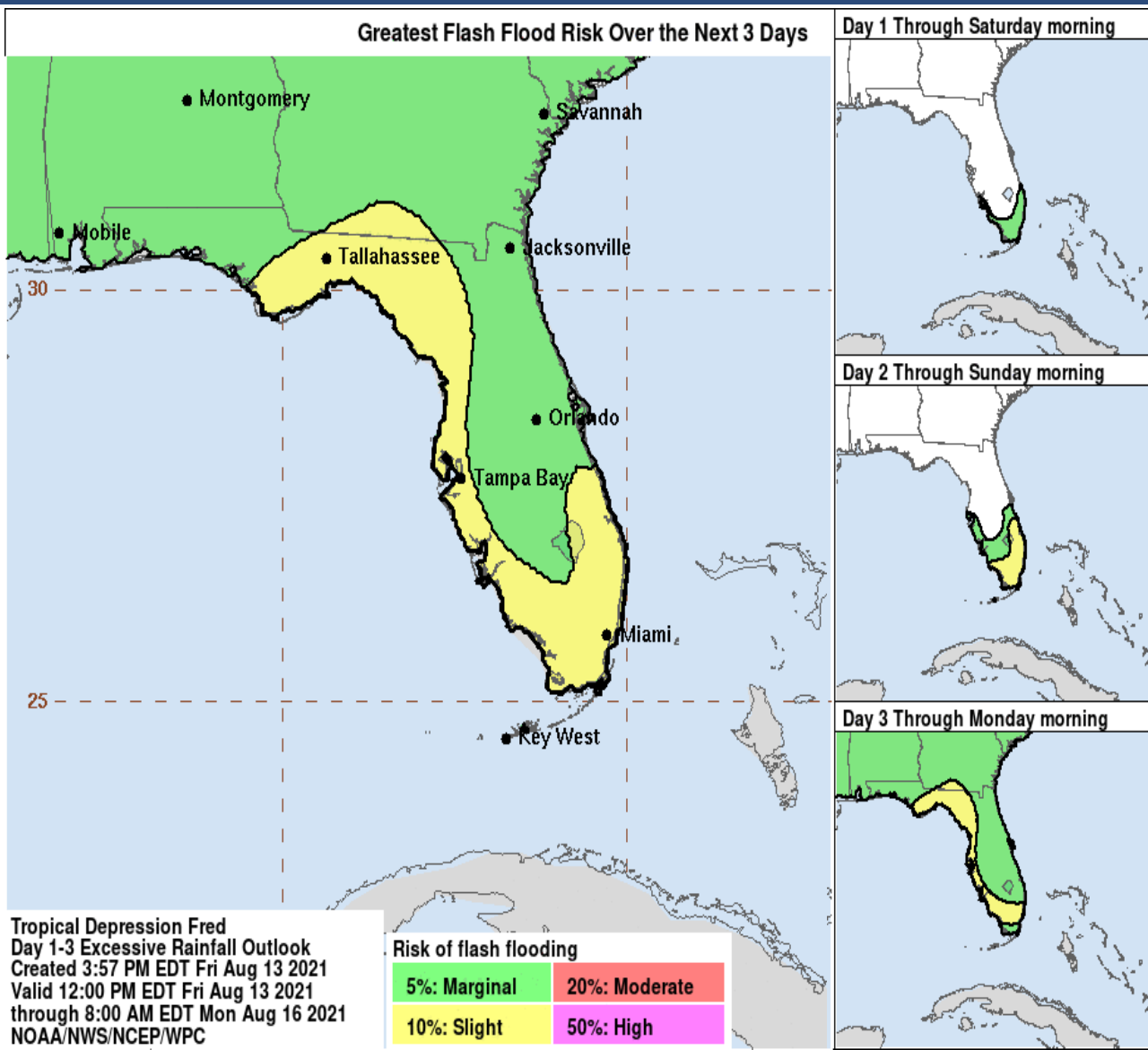
A widespread 3-5" of rain is expected across South Florida and the Florida Keys, as well as along the Florida West Coast into the Big Bend. Isolated areas may receive higher totals up to 6-8".

Given saturated soil conditions, these amounts may lead to flash flooding, riverine flooding and any gusty winds may allow for shallow-rooted or weak trees to fall.









Flash Flood Outlook for Friday-Saturday

From the Weather Prediction Center ([LINK](#))



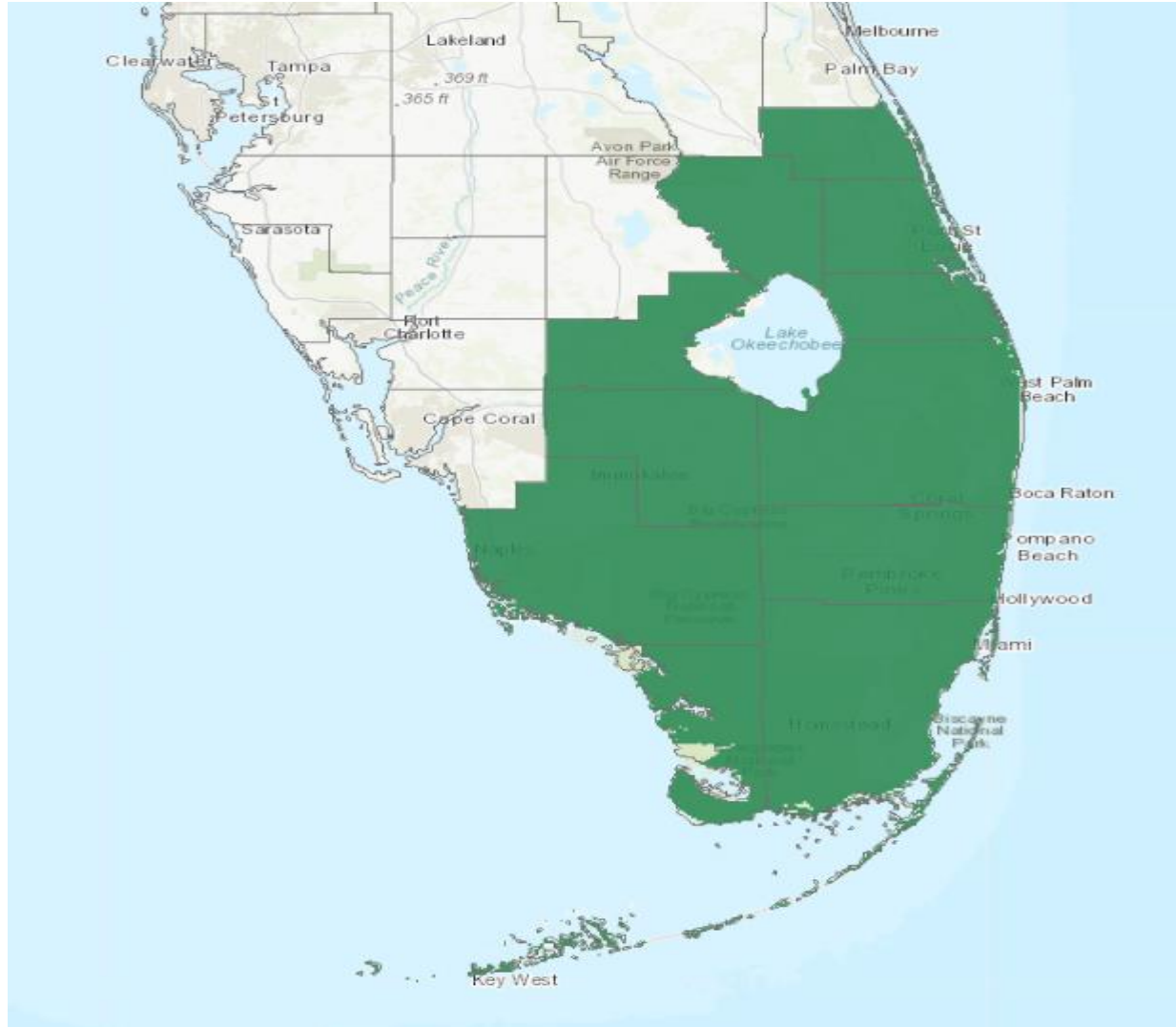
Understanding WPC Excessive Rainfall Risk Categories

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
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.	
@NWSWPC				
Flash flooding near me?	Flash Flooding			
	NO Flash Flooding			
  WEATHER PREDICTION CENTER				

Rain bands will begin to arrive in Southeast Florida later on Friday evening and continue into Saturday. Isolated flash flooding will be possible, especially in urban and low-lying areas. Flash flood risk will be the greatest on Sunday.



Active Flood Watches - NWS



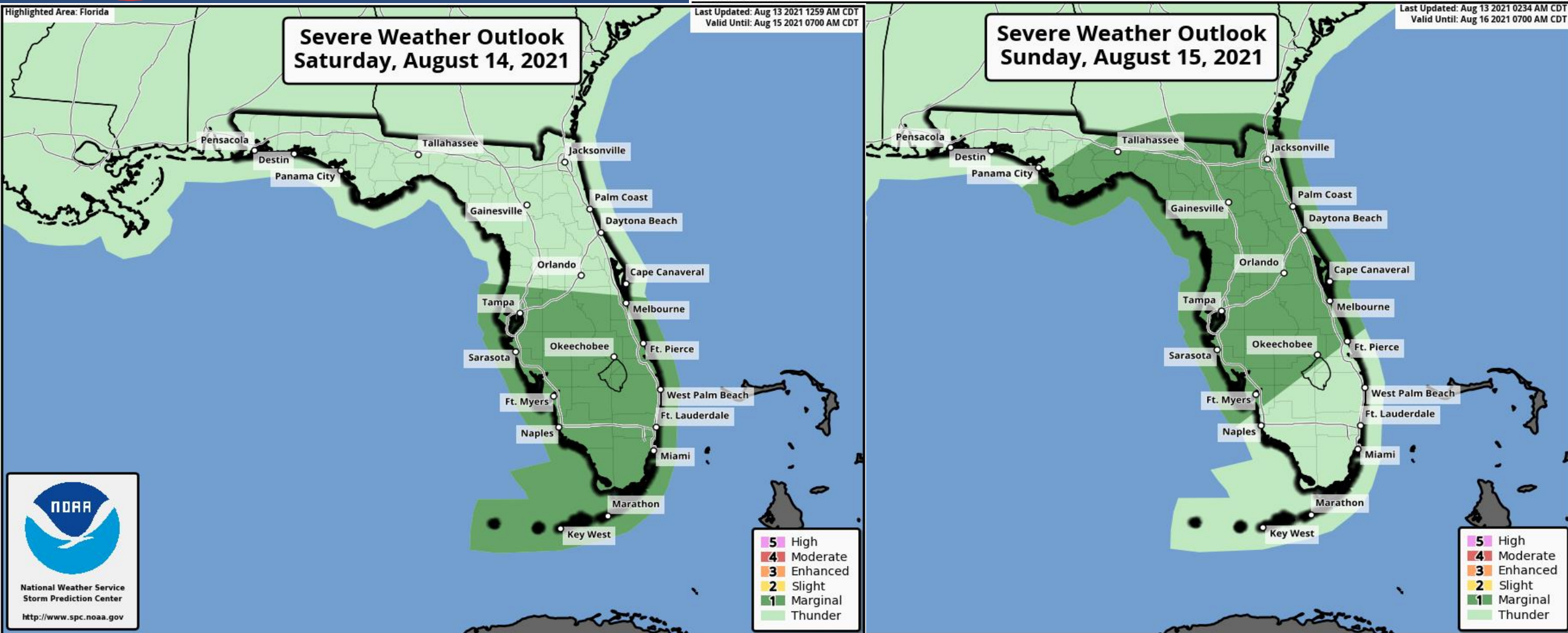
- Areal Flood Watch until 8 PM Sunday

Counties:

Indian River, St. Lucie, Okeechobee, Martin, Palm Beach, Broward, Miami-Dade, Monroe, Collier, Hendry, Glades



Tornado Risk

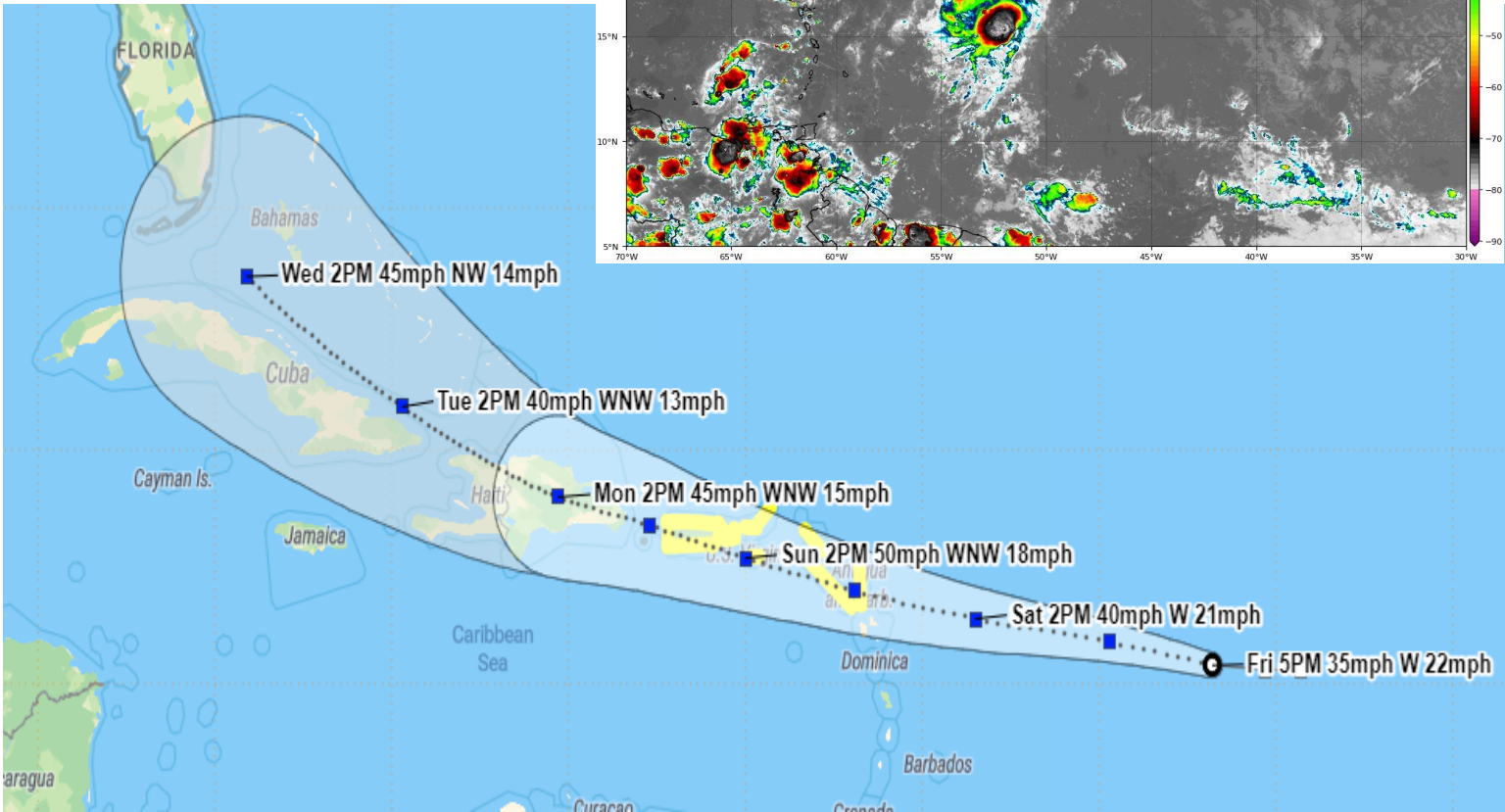
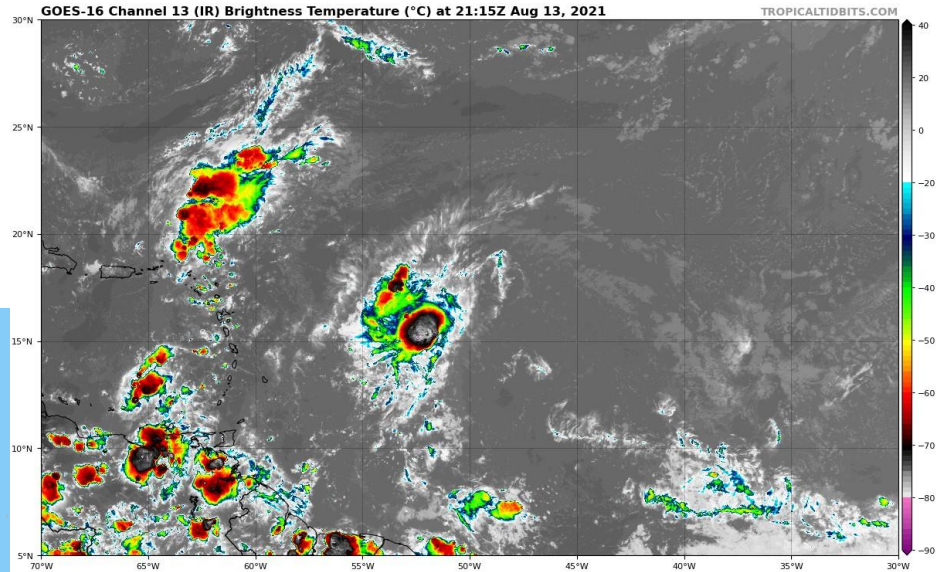


Isolated tornadoes will be possible in the outer bands of Fred as it passes South Florida on Saturday. The threat will expand northward into North and Central Florida Sunday.



Official Forecast Track

From the National Hurricane Center



- The center of T.D #7 is located about 675 miles east of the Leeward Islands, or about 1,965 miles southeast of Miami, Florida.
- Maximum sustained winds are around 35 mph. Some strengthening is forecast during the next couple of days, and the depression is expected to become a tropical storm tonight or on Saturday.
- The next storm name is Grace.
- Tropical Depression Seven is moving toward the west near 22 mph. A motion toward the west or west-northwest with a gradual decrease in forward speed is expected during the next few days.
- On the forecast track, the center of the depression is forecast to move over the Leeward Islands Saturday night, over the Virgin Islands and Puerto Rico on Sunday, and then over the Dominican Republic on Monday.
- T.D. 7 could approach South Florida on Thursday.

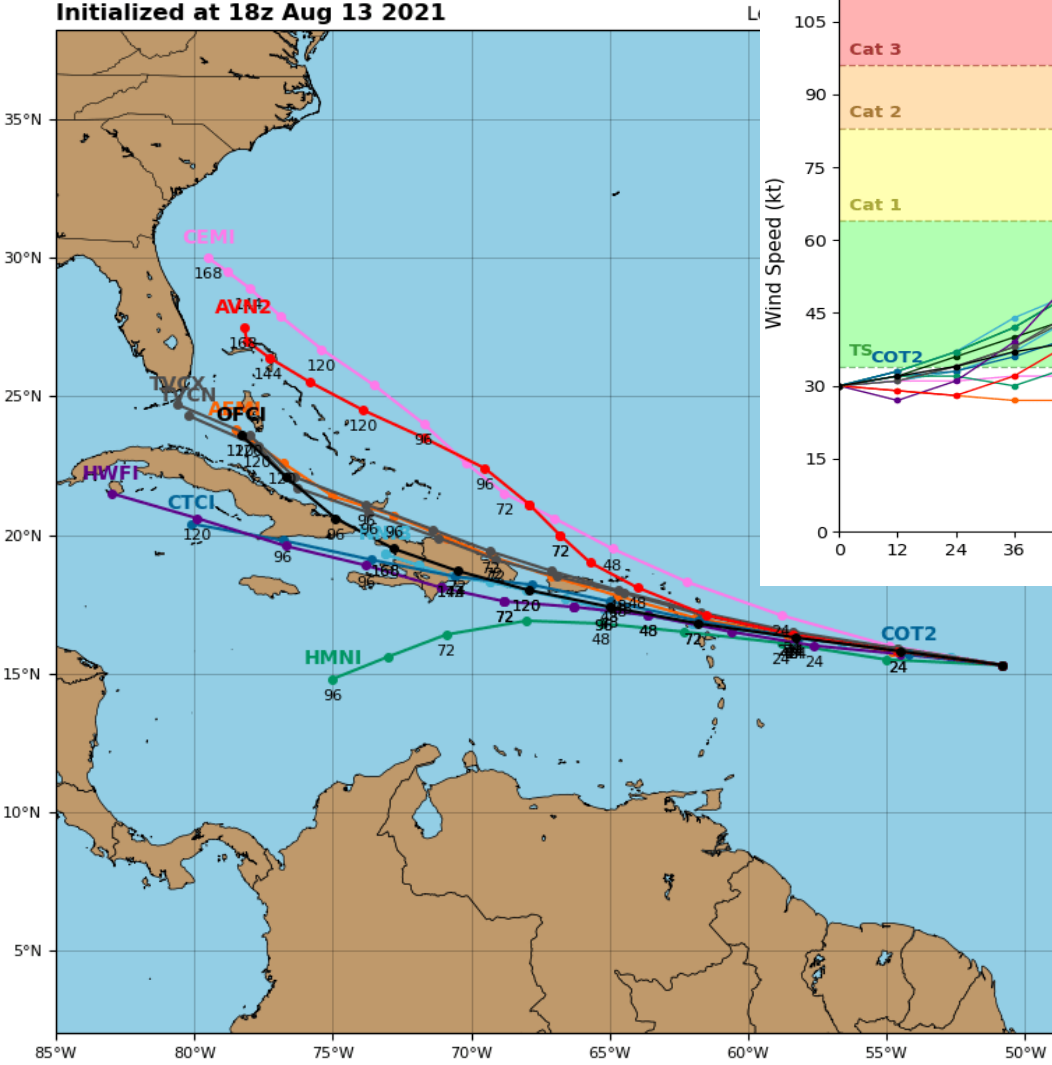


Model Forecasts

Ensembles, Dynamical, and Statistical Models – TD #7

Potential Tropical Cyclone SEVEN Model

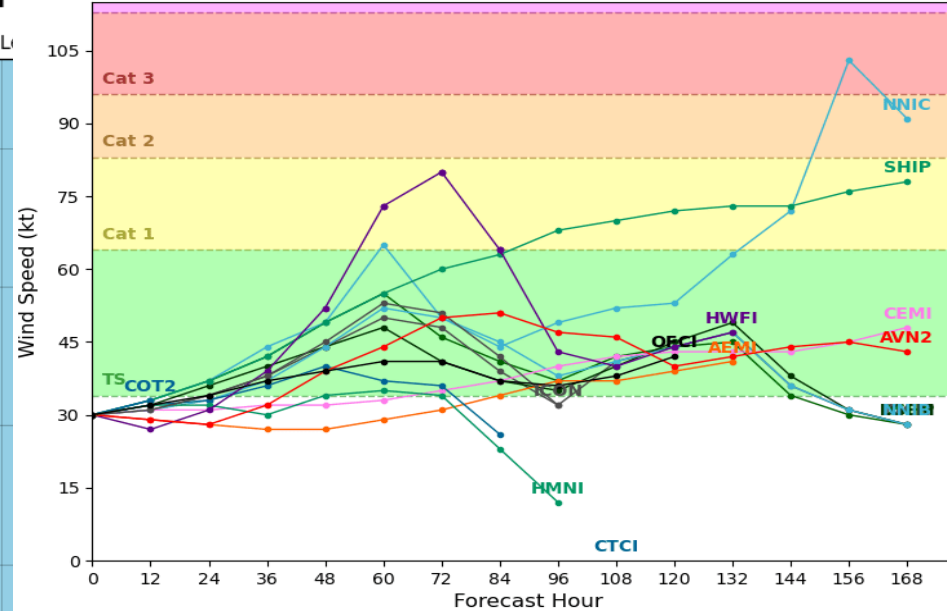
Initialized at 18z Aug 13 2021



Potential Tropical Cyclone SEVEN Model Intensity Guidar

Initialized at 18z Aug 13 2021

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Computer models remain split on track and intensity for TD 7, which is common in newly developing systems. Many keep the system weak as it interacts with Puerto Rico and Hispaniola, similar to Fred, but fluctuations in the forecast models are likely until the system acquires a defined center of low pressure and models come into agreement on steering flow in the western Atlantic next week.



Key Messages

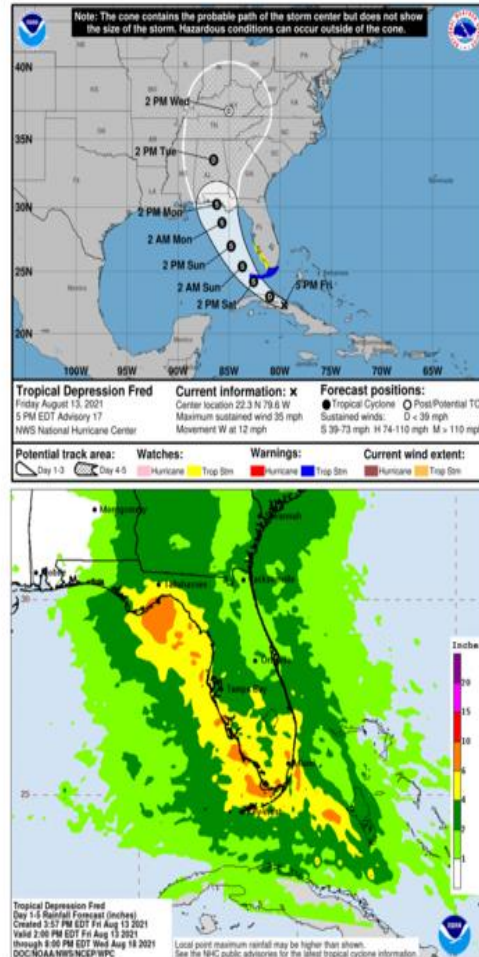
From the National Hurricane Center

Key Messages for Tropical Depression Fred

Advisory 17: 5:00 PM EDT Fri Aug 13, 2021



1. Today through Monday, heavy rainfall could lead to areal, urban, small stream, and exacerbated river flooding across southern and central Florida into the Big Bend. From Sunday onward, heavy rain and flood impacts could extend into other portions of the Southeast and into the southern and central Appalachians and Piedmont as Fred interacts with a front in that area.
2. Tropical storm conditions are expected in portions of the Florida Keys on Saturday, where a Tropical Storm Warning is in effect.
3. Tropical storm conditions are possible late Saturday and early Sunday across portions of the west coast of Florida in the Tropical Storm Watch area. The risk of tropical storm conditions will spread northward along the Florida west coast and to the Florida Panhandle Sunday and Monday.



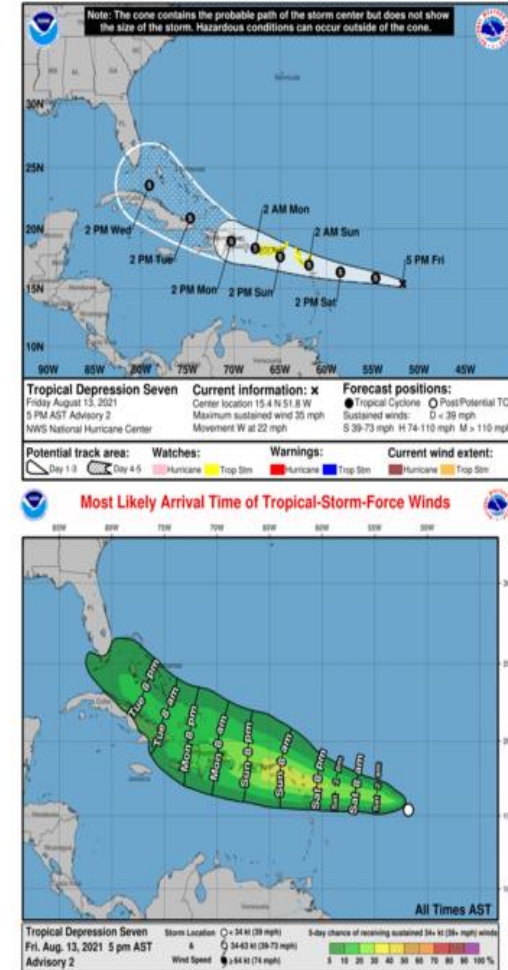
For more information go to hurricanes.gov

Key Messages for Tropical Depression Seven

Advisory 2: 5:00 PM AST Fri Aug 13, 2021



1. Tropical storm conditions are possible in portions of the Leeward Islands late Saturday or early Sunday, and over the Virgin Islands and Puerto Rico on Sunday. The risk of strong winds will then spread westward to the Dominican Republic Sunday night and Monday.
2. Heavy rainfall could lead to flash and urban flooding over the Leeward and Virgin Islands. Across Puerto Rico, heavy rainfall may lead to flash, urban and small stream flooding, along with the potential for mudslides.
3. There is a risk of wind and rainfall impacts across Haiti, the Turks and Caicos Islands, the southeastern Bahamas, and Cuba next week, and interests in those areas should monitor the progress of this system.



For more information go to hurricanes.gov



Overall Summary

Tropical Depression Fred:

- The center of Fred is located over central Cuba, or about 210 miles southeast of Key West, Florida.
- Maximum sustained winds remain around 35 mph. Fred could become a tropical storm again on Saturday.
- Fred is moving west at 12 mph, but a west-northwest motion is expected to resume tonight, followed by a turn toward the northwest on Saturday.
- On the forecast track, Fred is expected to move along the north coast of central Cuba through tonight, be near the lower Florida Keys on Saturday, in the eastern Gulf of Mexico Sunday make landfall along the Florida Panhandle coast on Monday.

Tropical Depression Seven:

- T.D #7 is located about 675 miles east of the Leeward Islands, or about 1,965 miles southeast of Miami, Florida.
- Maximum sustained winds are around 35 mph, and the depression is expected to become a tropical storm tonight or on Saturday. The next storm name is Grace.
- On the forecast track, the center of the depression is forecast to move over the Leeward Islands Saturday night, over the Virgin Islands and Puerto Rico on Sunday, and then over the Dominican Republic on Monday.
- T.D. 7 could approach South Florida on Thursday.

Florida Outlook:

- Tropical Storm Watches and Warnings remain in effect for the Florida Keys and coastal portions of Southwest Florida south of Englewood. Additional watches and warnings are possible for the Florida Panhandle tomorrow.
- The main threat to Florida from Fred is heavy rainfall. A widespread 3-5" of rain with localized totals of 6-8" are anticipated across South Florida as well as portions of the Florida West Coast and Florida Panhandle. **Flood Watches** are in effect for South Florida and the Treasure Coast. Additional watches for portions of North Florida are likely to be issued tomorrow.
- Widespread minor to moderate river flooding will continue this week in Northeast Florida. Heavy rainfall may continue or worsen flooding.
- Isolated tornadoes are also possible in South Florida and the Keys on Saturday, with a tornado threat for North and Central Florida on Sunday.
- A minor coastal flood/storm surge threat may exist for portions of Apalachee Bay as Fred approaches.
- It is too early to determine what, if any, impacts Florida may experience from T.D. 7, but should be monitored.

Another briefing packet will be issued Saturday morning. 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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