



# TROPICAL UPDATE



7:00 AM EDT

Friday, July 31, 2020

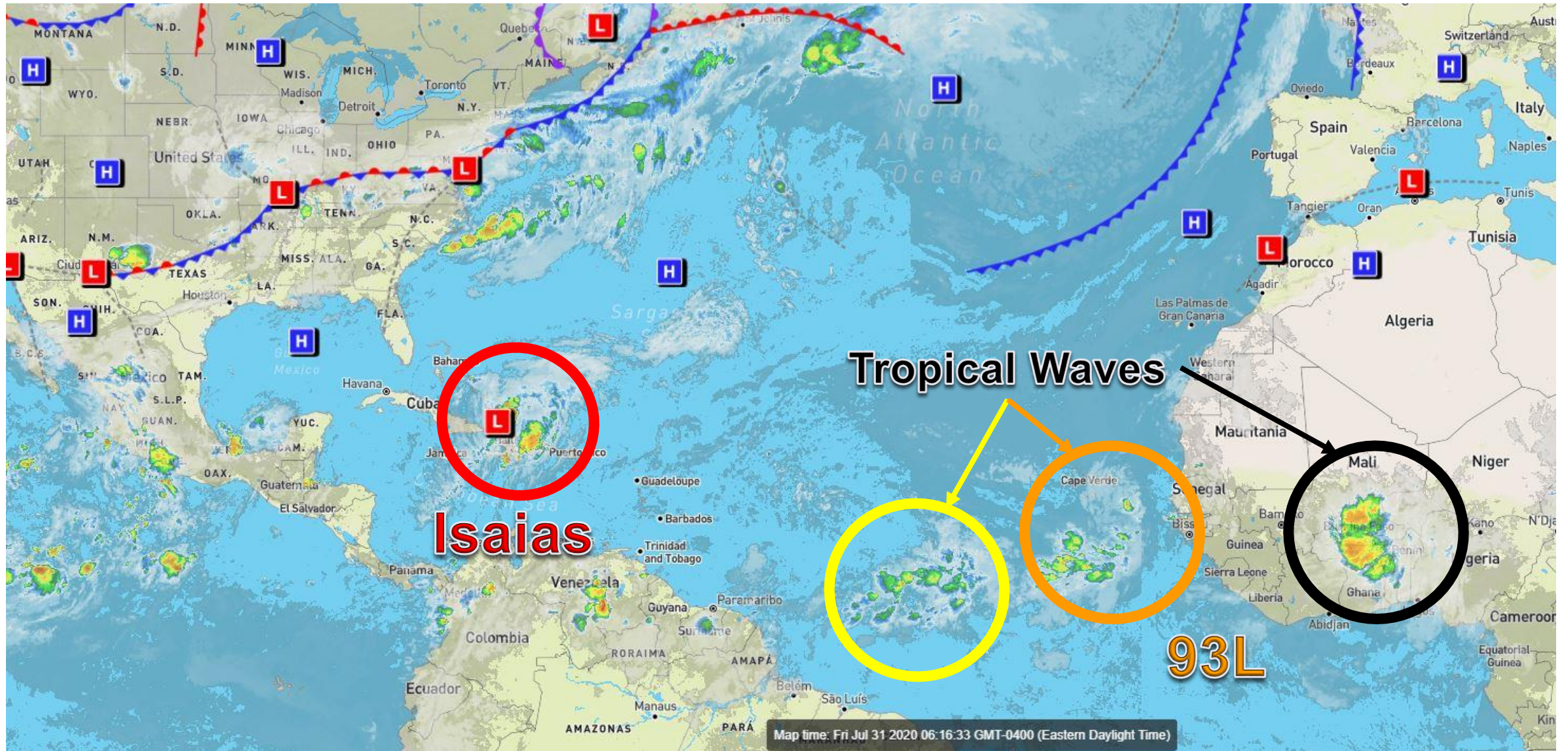
Hurricane Isaias, Invest 93L (40%),  
& Eastern Atlantic Tropical Wave (20%)

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).



# Atlantic Basin Satellite Image

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





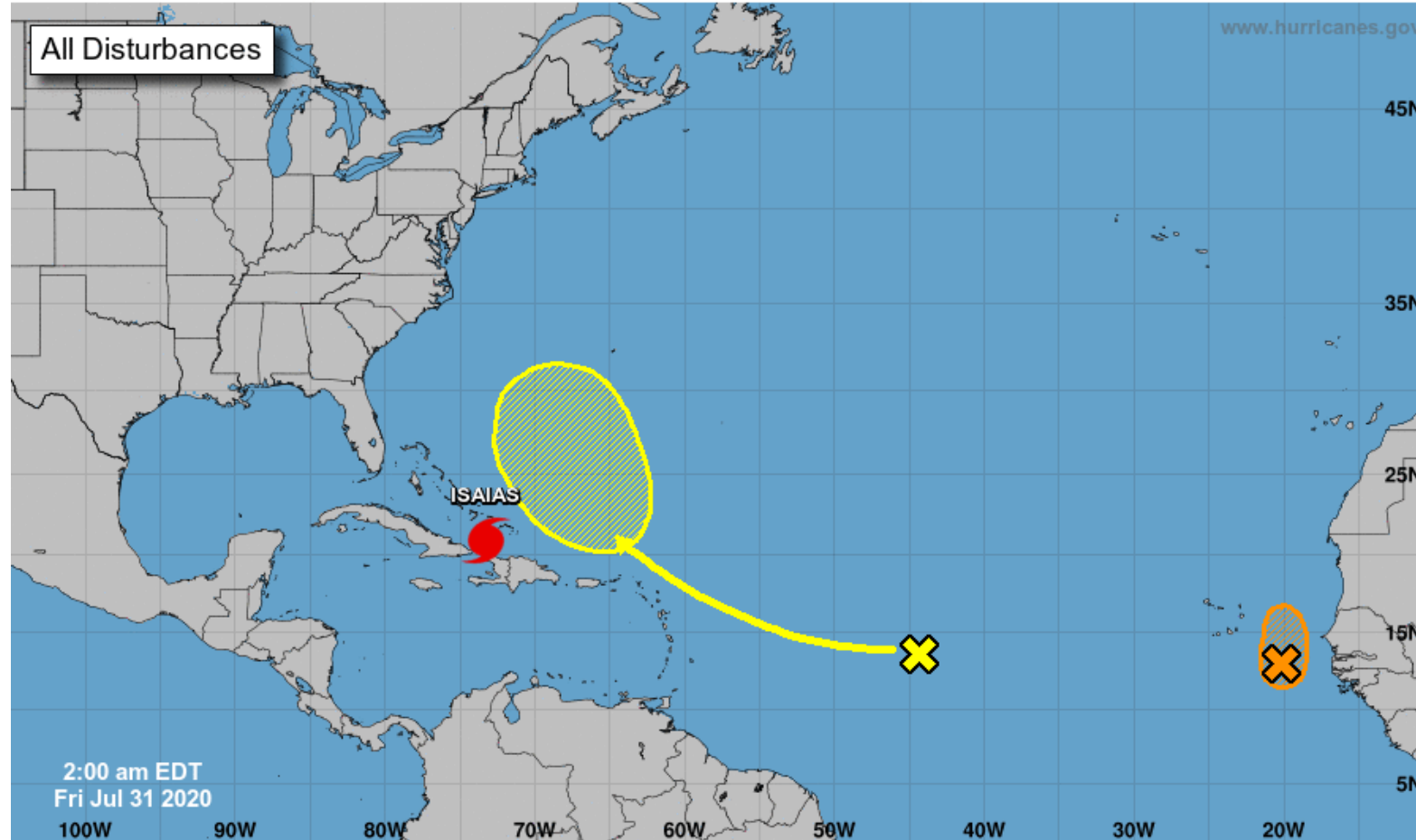


# Tropical Weather Outlook

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



## Five-Day Graphical Tropical Weather Outlook National Hurricane Center Miami, Florida

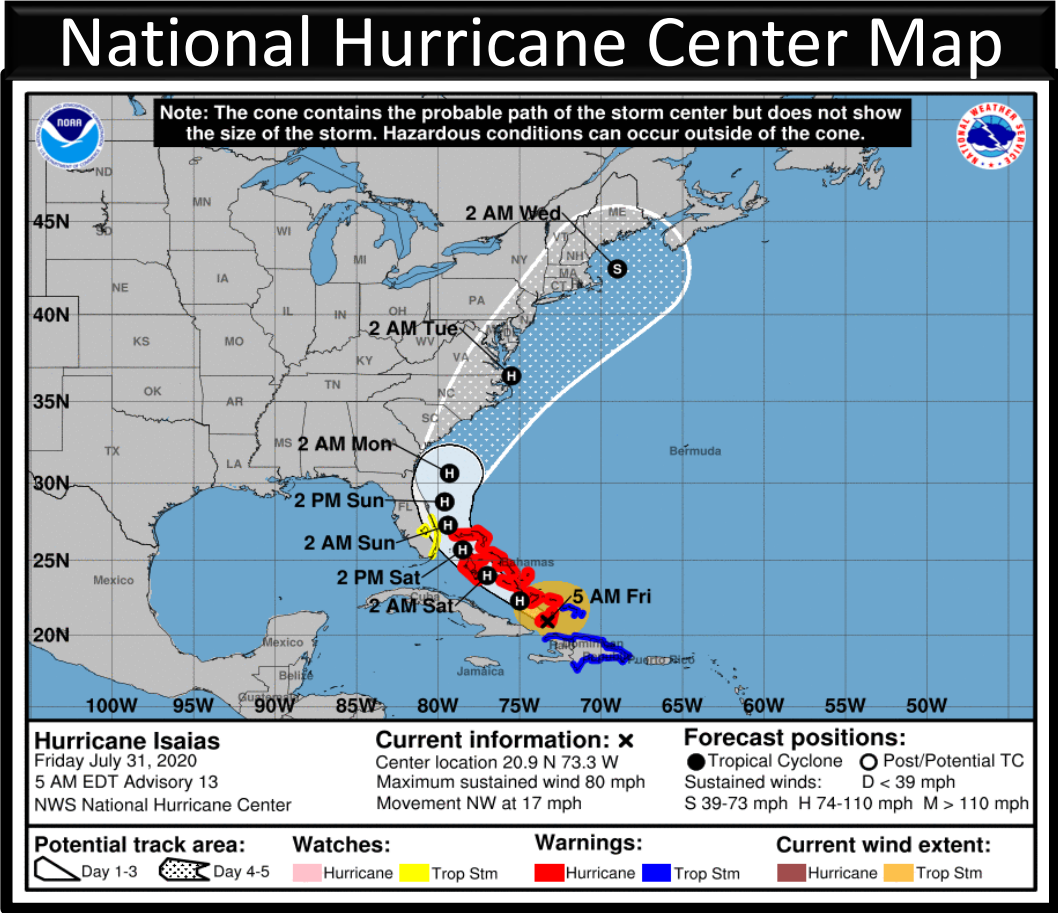


Current Disturbances and Five-Day Cyclone Formation Chance: X < 40% X 40-60% X > 60%  
Tropical or Sub-Tropical Cyclone: ○ Depression ○ Storm ○ Hurricane  
⊗ Post-Tropical Cyclone or Remnants

# Hurricane Isaias Friday, July 31

	MINIMAL	Low	MODERATE	HIGH	EXTREME
 WINDS					
 STORM SURGE					
 FLASH FLOODING					
 TORNADOES					

	Low	MODERATE	HIGH
 RIP CURRENTS			

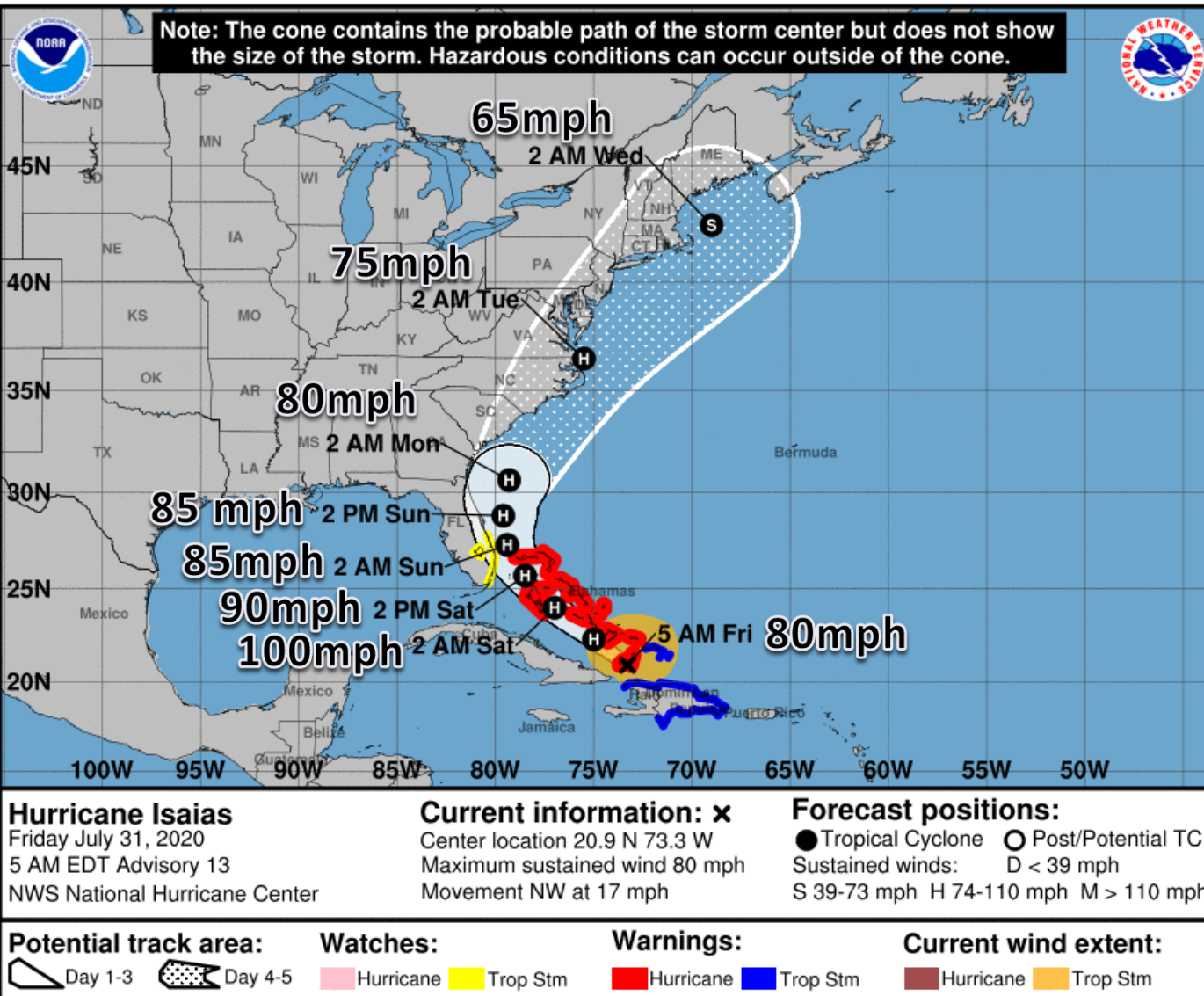


**Overview/Recent Changes:**  
Isaias strengthened overnight, becoming a Category 1 Hurricane with maximum sustained winds of 80 mph. Additional strengthening is forecast over the next 48 hours as Isaias nears the East Coast of Florida. Tropical Storm Watches are in effect, and additional watches and warnings are possible today. Small shifts in the track will have large changes on the impacts.



# Official Forecast Track

## From the National Hurricane Center – Hurricane Isaías



- The center of Hurricane Isaías is about 550 miles southeast of Miami, Florida, moving to the NW at 17 mph.
- Maximum sustained winds are around 80 mph, making it a category 1 hurricane.
- Strengthening to a category 2 hurricane is forecast Saturday over the Bahamas (100 mph).
- The system will approach the Florida East Coast Saturday then move away from Florida late Sunday and Monday.
- There is still some uncertainty in whether the system comes onshore in Florida or if it remains offshore. Adjustments to the track and intensity forecast are still possible.
- A stronger hurricane is more likely to remain east of Florida, while a weakening system may move onshore.
- Tropical Storm Watches are in effect from Sebastian Inlet to Ocean Reef, including Lake Okeechobee



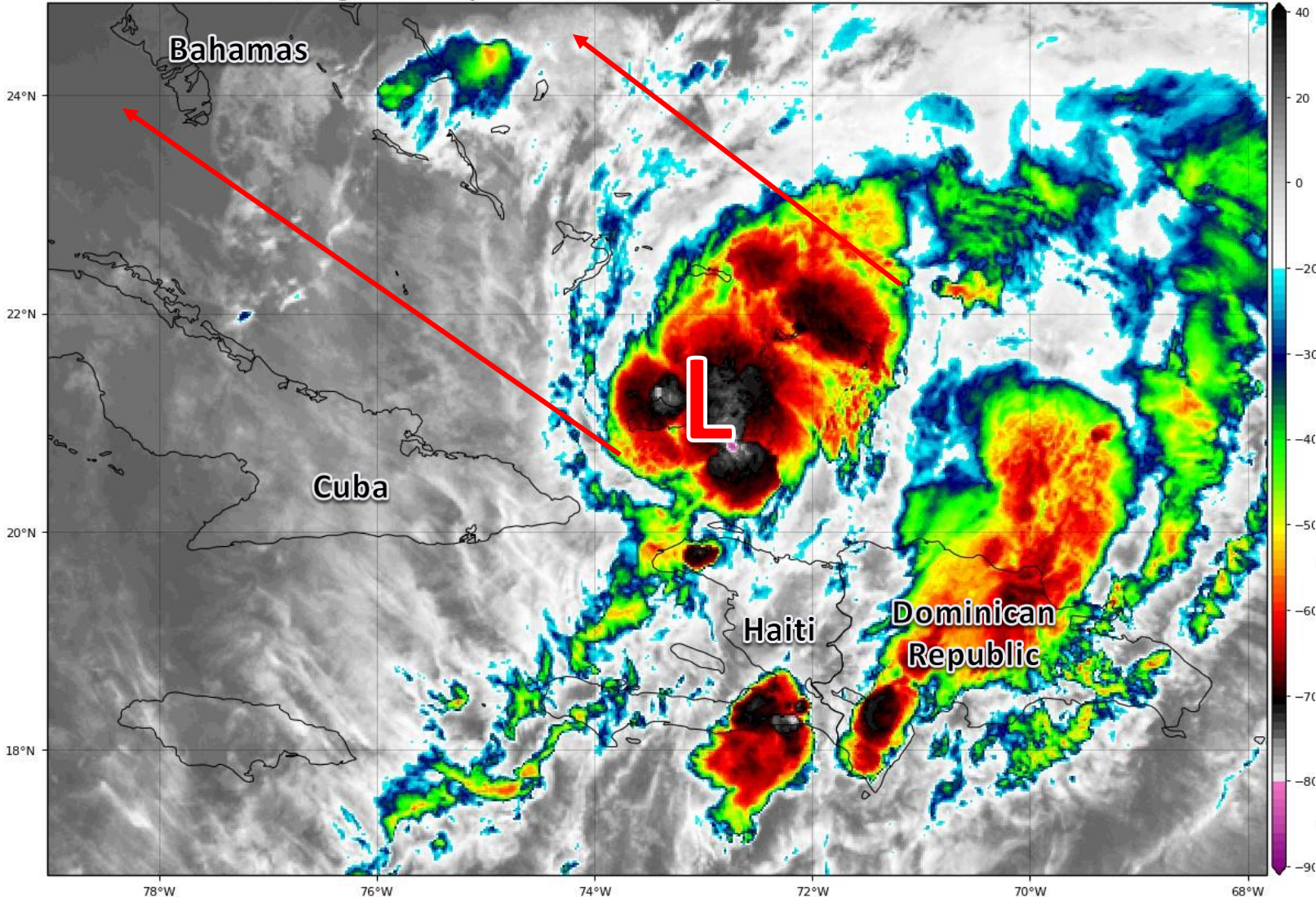


# Satellite Imagery

## Southwest Atlantic – Hurricane Isaias

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 10:27Z Jul 31, 2020

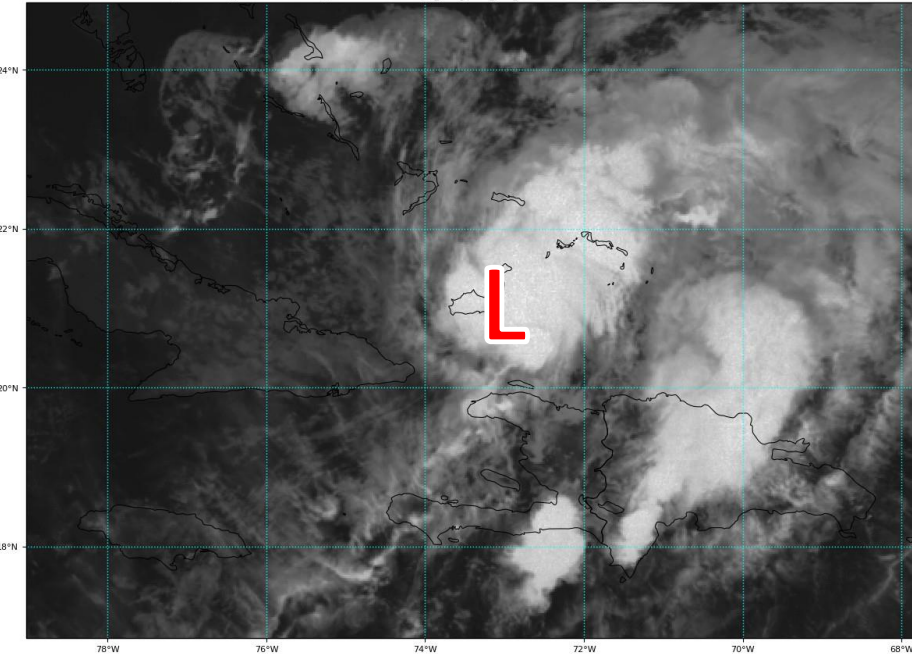
TROPICALTIDBITS.COM



Isaias reorganized overnight as it moved away from the high mountains of Haiti and the Dominican Republic. Isaias will continue to organize today as it moves to the northwest across the Bahamas.

GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 10:12Z Jul 31, 2020

TROPICALTIDBITS.COM





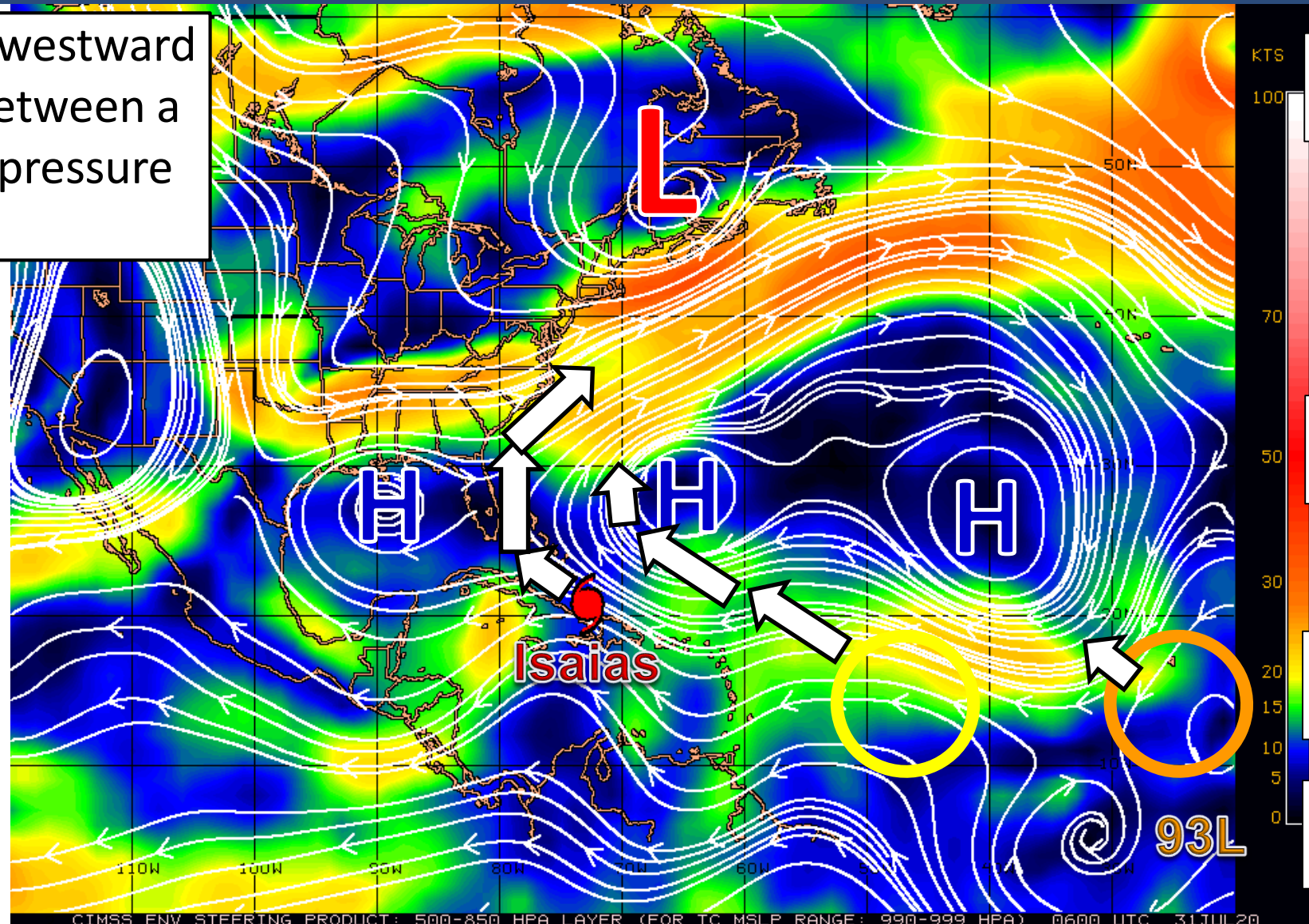


# Steering Currents

What is moving the system?

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

Isaias will move northwestward and the northward between a break in a large high pressure system.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm

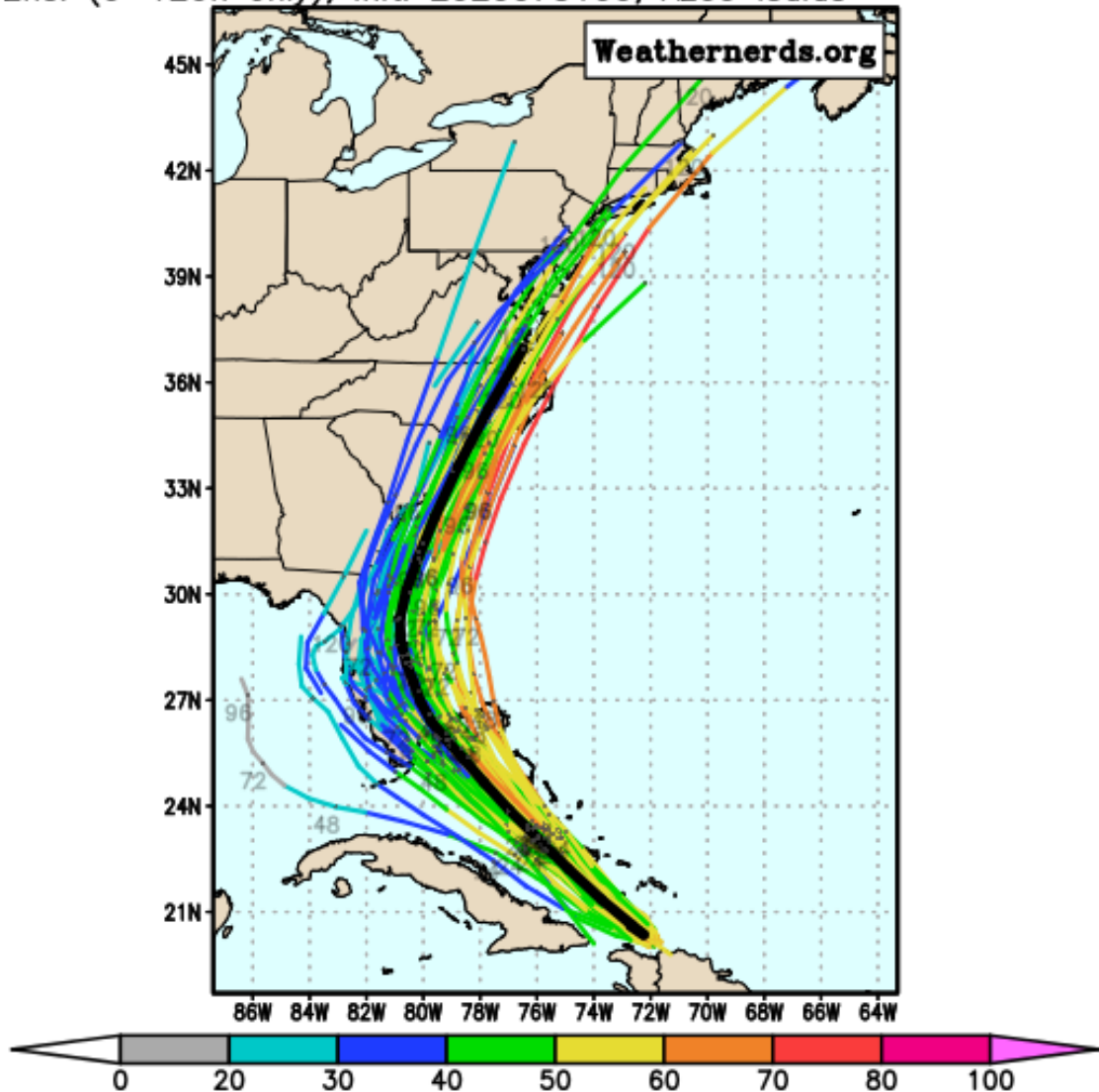


# Model Forecasts

## Dynamical Models – Hurricane Isaias

ECMWF Ens. (0–120h only), init: 2020073100, AL09 Isaias

color = max wind (kt)



Note the large spread in the models continues, as uncertainty continues with how close Isaias will get to Florida.

Reds and oranges are stronger storms (hurricanes), and tend to keep the storm east of Florida and offshore.

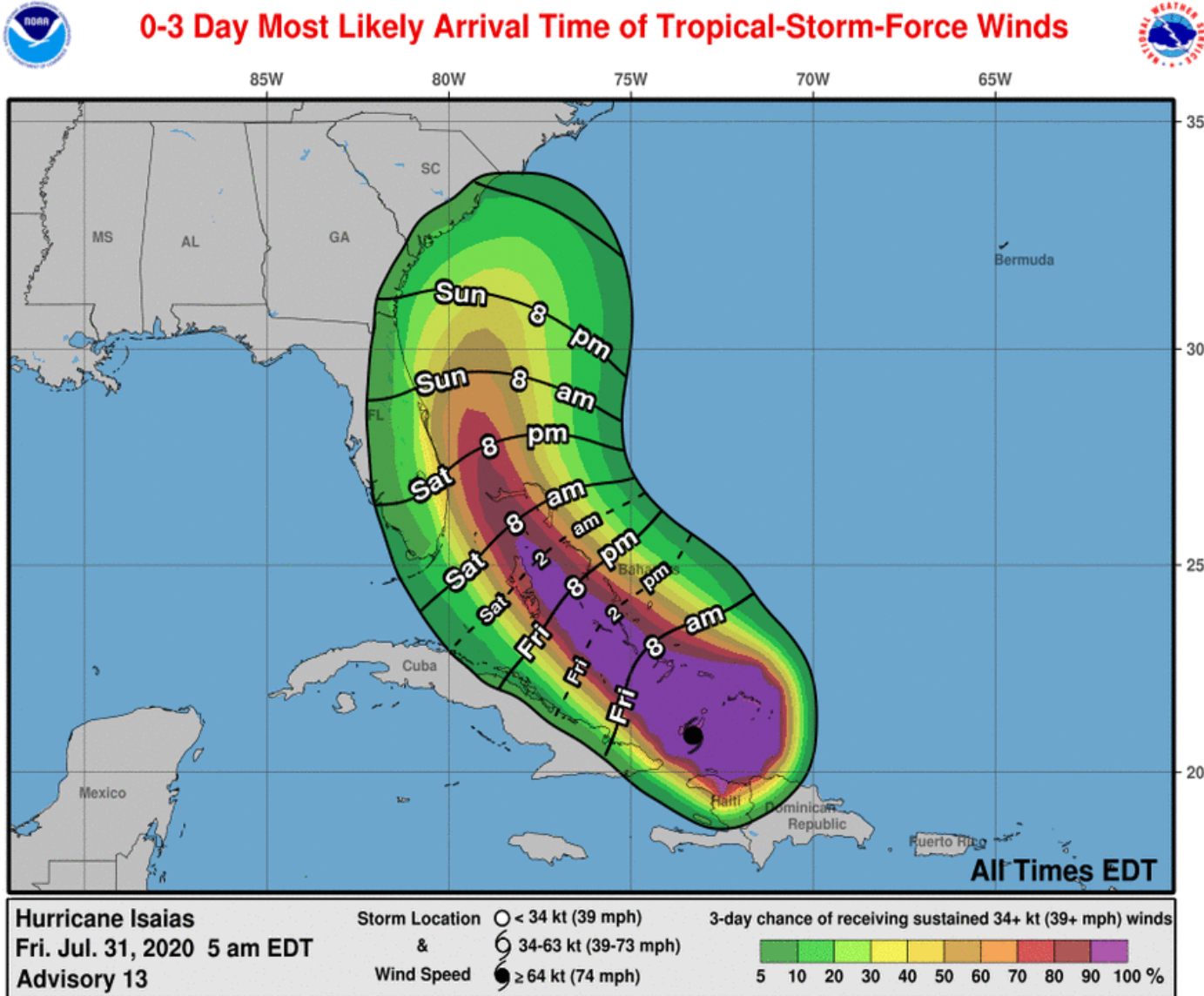
If the system weakens (greens and blues, tropical storm to near hurricane strength), it is more likely to move onshore and bring more impacts to Florida.





# Time of Arrival & Wind Speed Probabilities

**MOST LIKELY** Time of Arrival of Tropical Storm Force Winds (>39 mph)



**Key West: 3%**  
**Miami: 20% (+2)**  
**Naples: 8% (-2)**  
**West Palm Beach: 54% (+10)**  
**Ft. Lauderdale: 44% (+9)**  
**Ft. Pierce: 54% (+8)**  
**Daytona Beach: 22% (-1)**  
**Orlando: 16% (-2)**  
**Tampa: 7% (-2)**  
**Jacksonville: 10% (-3)**

The most likely chance of tropical storm force winds starting will be Saturday morning in Southeast Florida, but could arrive AS EARLY AS late tonight.



# Damaging Wind Threat Overview

## Hurricane Isaias

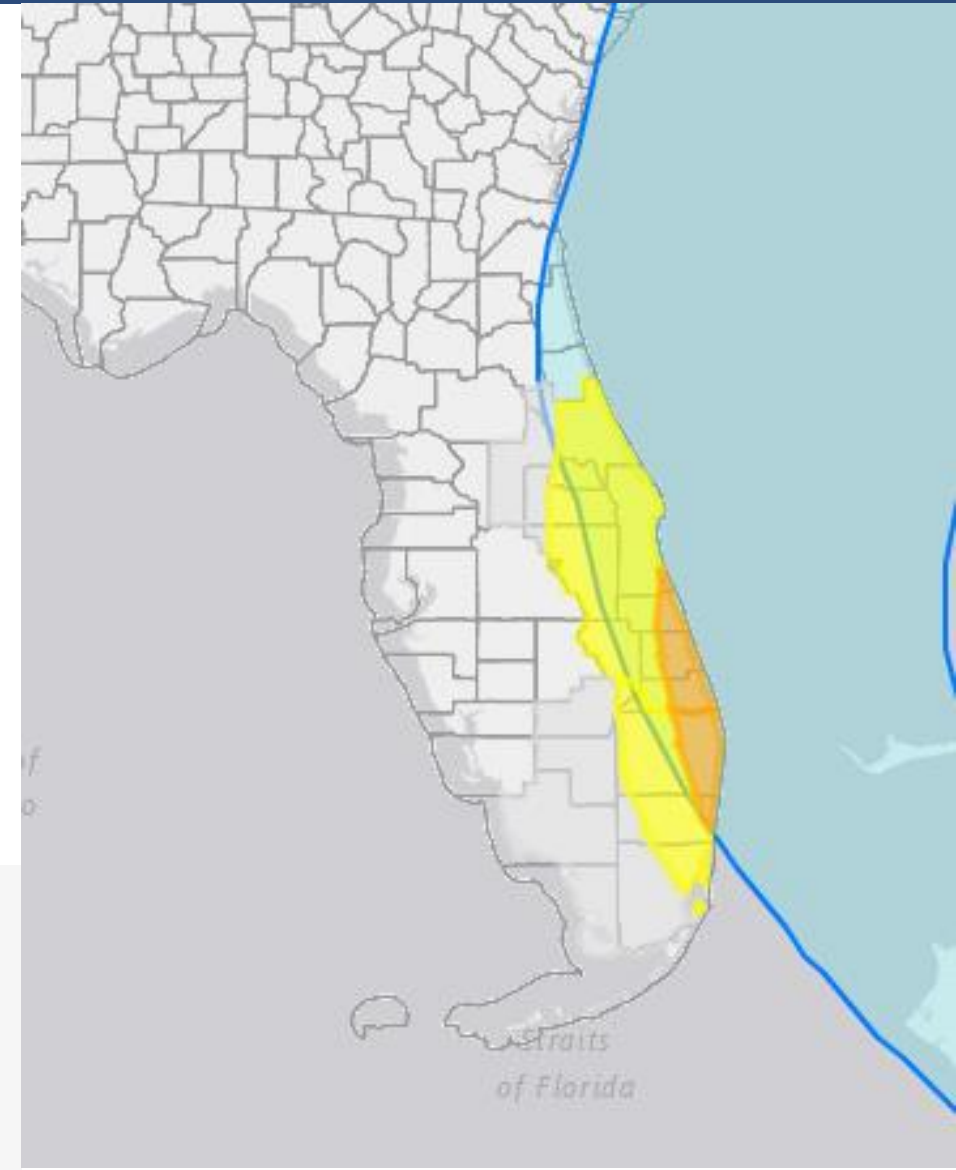
The greatest wind threat is along the immediate coast (Treasure Coast) of Southeast Florida, mainly along and east of I-95.

Higher gusts to 70 mph may be possible Saturday and Sunday as Isaias makes its closest approach.

<https://www.weather.gov/srh/tropical?office=mfl>

Click on “Threats and Impacts” Tab

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





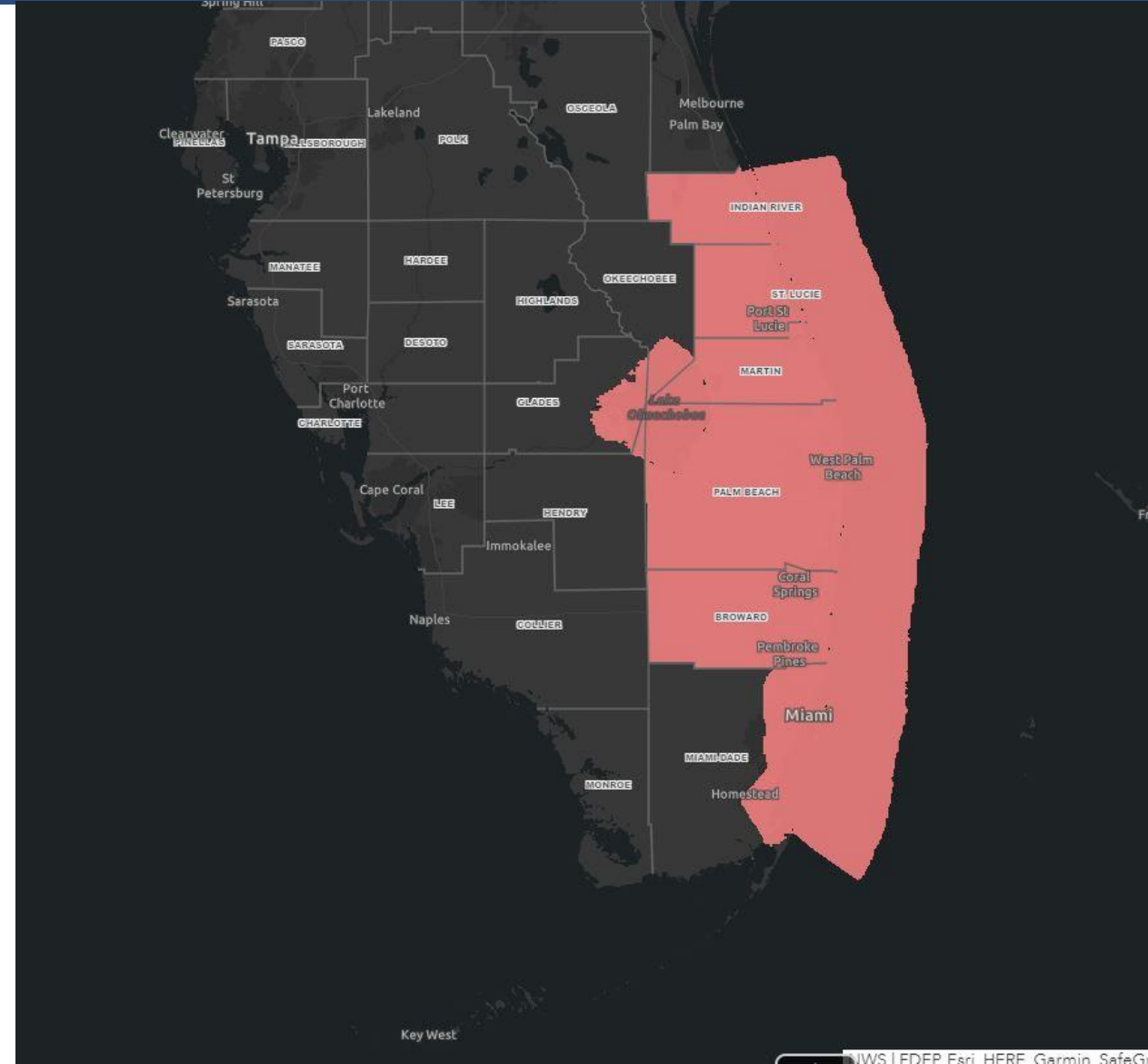


# Wind Watches and Warnings

In Effect Until Further Notice

**Tropical Storm Watches are in effect from Sebastian Inlet to Ocean Reef, including Lake Okeechobee**

**Counties: Indian River, St. Lucie, Martin, Palm Beach, Broward, coastal and metro Miami-Dade**





# 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



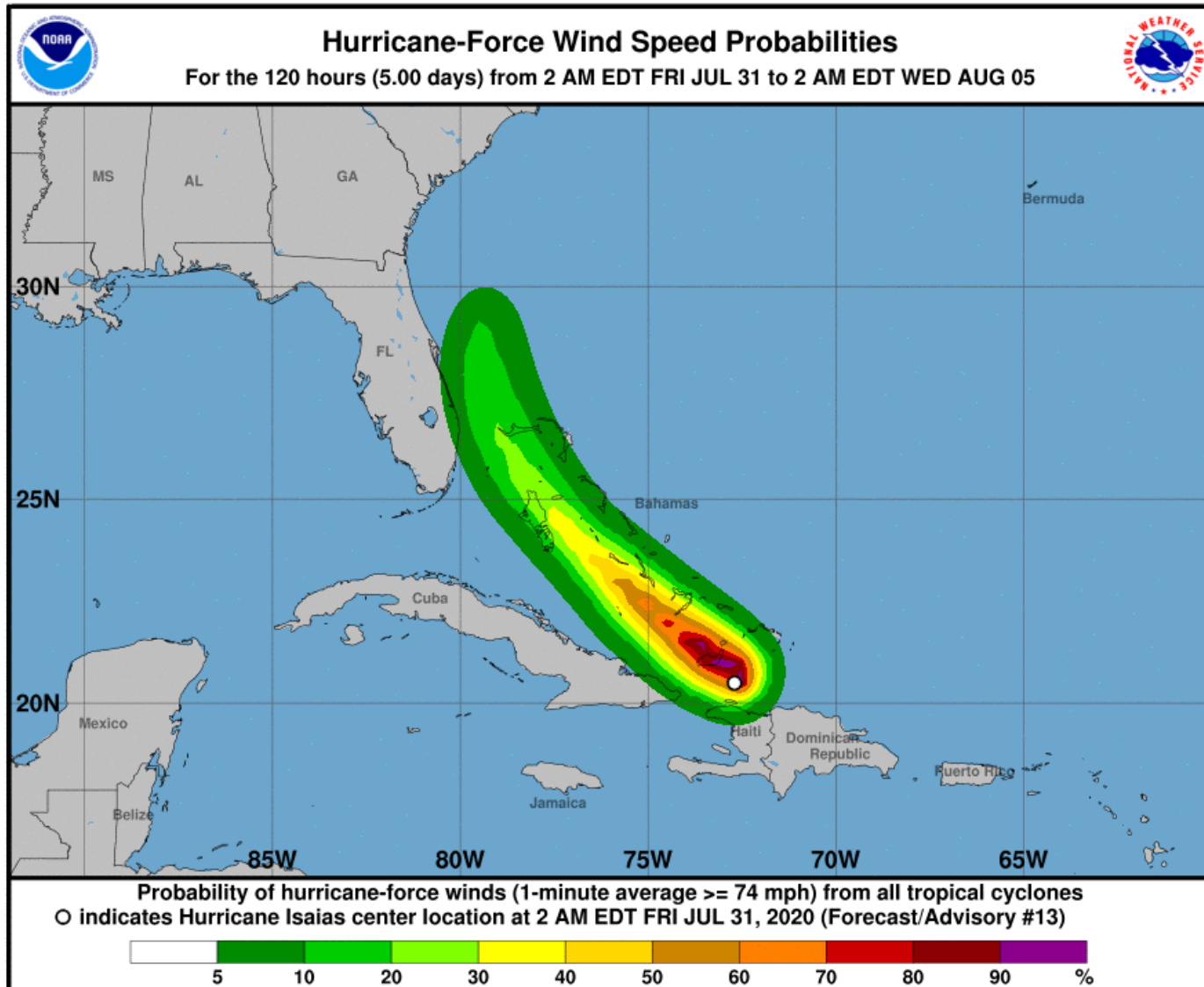
[weather.gov/mob](https://weather.gov/mob)





# Hurricane Wind Speed Probabilities

Probabilities of Sustained Hurricane Force Winds (>74 mph)



Only ~5% along the  
Treasure Coast.



# Storm Surge Threat Overview

## Hurricane Isaias

Only minor coastal flooding is expected in Southeast Florida, as storm surge of 1-2' is forecast.

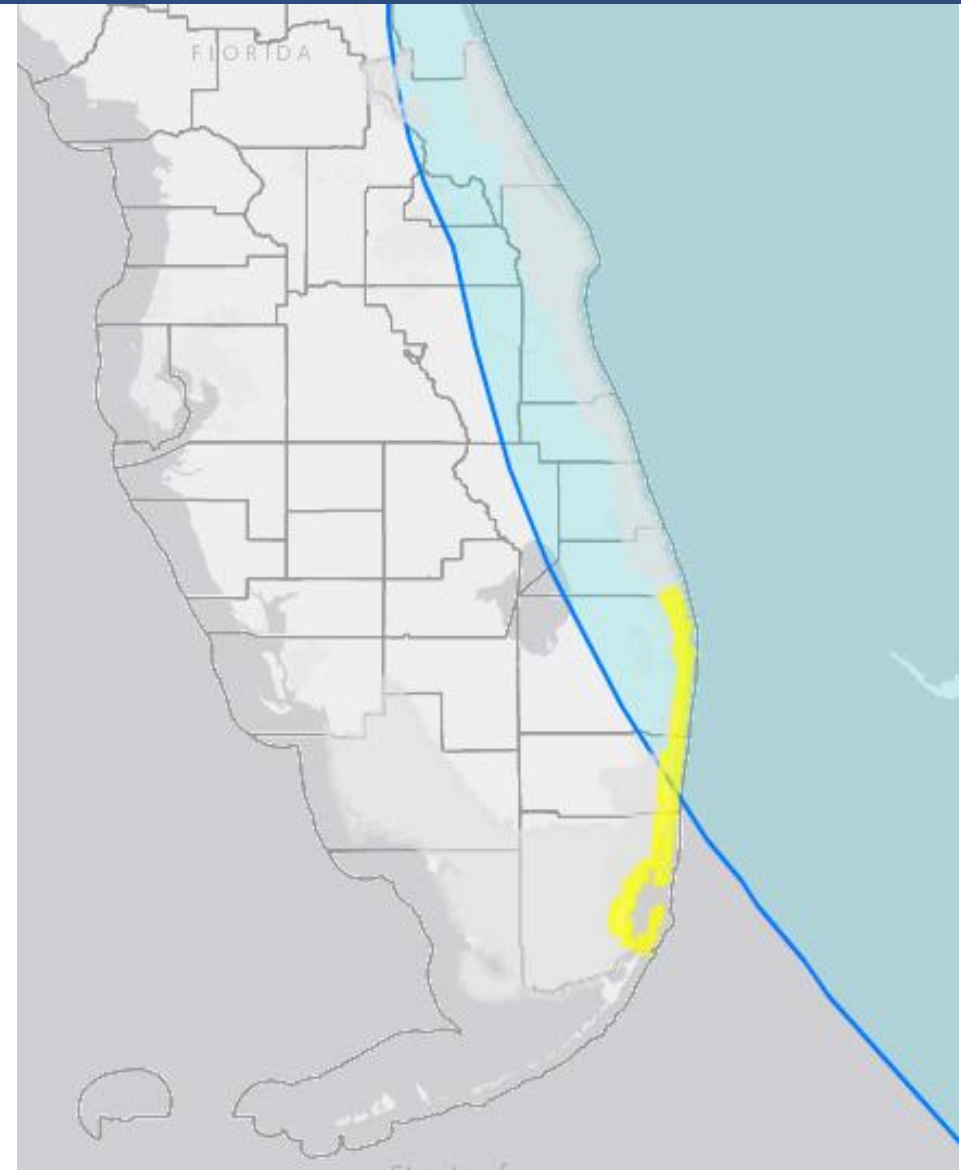
\*However, Northeast Florida will be monitored, and details may become available later today.\*

**There are no storm surge watches or warnings in effect.**

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

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

Click on "Threats and Impacts" Tab







# Key Messages

## From the National Hurricane Center



### Key Messages for Hurricane Isaias Advisory 13: 5:00 AM EDT Fri Jul 31, 2020



1. Isaias will produce heavy rains and potentially life-threatening flash flooding and mudslides across the Dominican Republic, northern Haiti, Turks and Caicos, and the Bahamas. Heavy rains associated with Isaias may begin to affect South and east-Central Florida beginning late Friday night, and the eastern Carolinas by early next week, potentially resulting in isolated flash and urban flooding, especially in low-lying and poorly drained areas. Isolated minor river flooding is possible in the Carolinas early next week.

2. Hurricane conditions and dangerous storm surge are expected in portions of the Bahamas today and Saturday, and Hurricane Warnings are in effect for these areas. Preparations to protect life and property should be rushed to completion.

3. Tropical storm conditions are possible along portions of the Florida east coast beginning Saturday, and a Tropical Storm Watch remains in effect. While storm surge watches are not currently needed for this area, they may be required later today if the forecast track shifts closer to the coast. Heavy rains associated with Isaias may begin to affect South Florida and east-Central Florida beginning late tonight, potentially resulting in isolated flash and urban flooding, especially in low-lying and poorly drained areas.

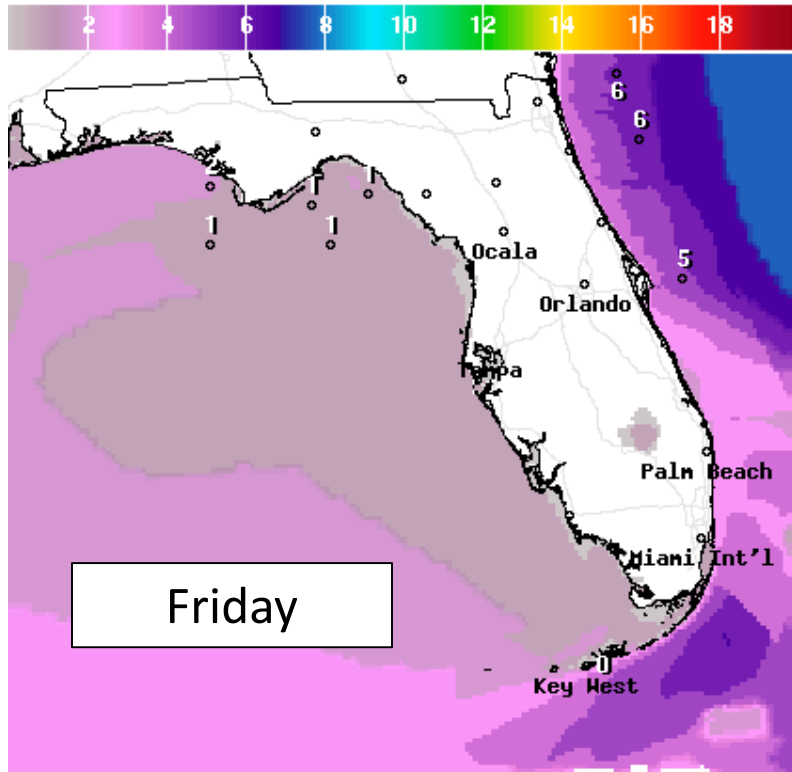
4. There is a risk of impacts from winds, heavy rainfall, and storm surge late this weekend from the northeastern Florida coast and spreading northward along the remainder of the U.S. east coast through early next week. The details of the track and intensity forecast remain uncertain, and it is too soon to determine the magnitude and location of these potential impacts, but interests along the entire U.S. east coast should monitor the progress of Isaias and updates to the forecast.





# Forecast Wave Heights

## This Weekend

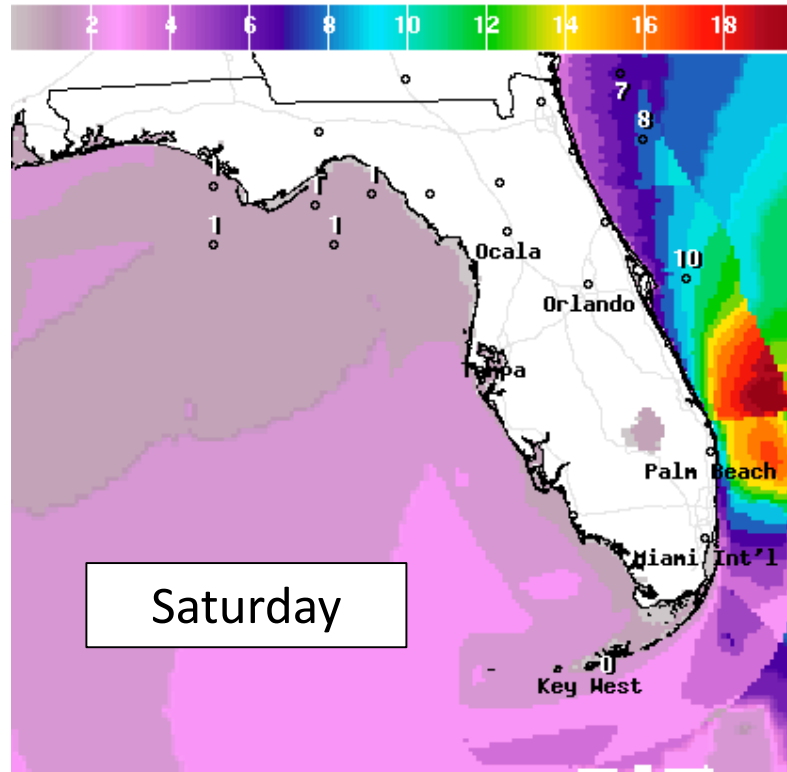


Wave Height(ft) Ending Fri Jul 31 2020 8PM EDT  
(Sat Aug 01 2020 00Z)



National Digital Forecast Database

10z issuance Graphic created-Jul 31 6:33AM EDT

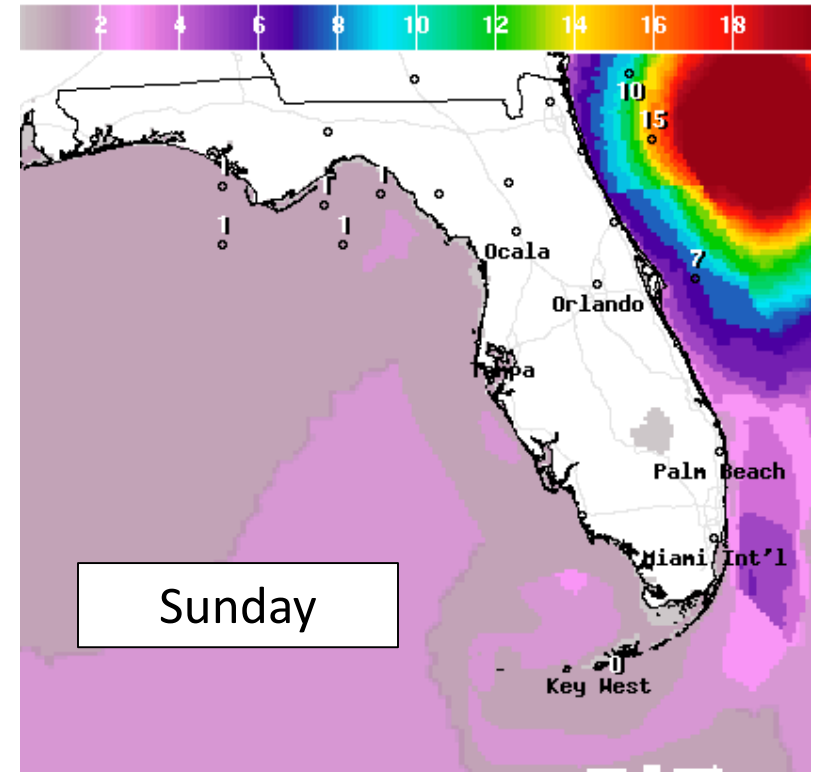


Wave Height(ft) Ending Sat Aug 01 2020 8PM EDT  
(Sun Aug 02 2020 00Z)



National Digital Forecast Database

10z issuance Graphic created-Jul 31 6:33AM EDT



Wave Height(ft) Ending Sun Aug 02 2020 8PM EDT  
(Mon Aug 03 2020 00Z)



National Digital Forecast Database

10z issuance Graphic created-Jul 31 6:34AM EDT



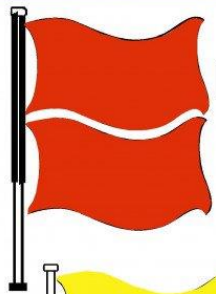
High surf of 8-11 feet is expected along East Coast beaches this afternoon. This will result in dangerous rip currents. Minor to significant beach erosion is expected.



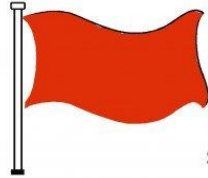
# Rip Current Outlook

Today

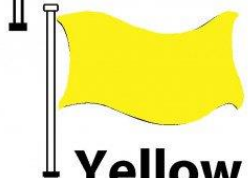
## BEACH FLAG WARNING SYSTEM



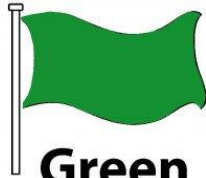
**Double Red**  
Water Closed to  
Public Use



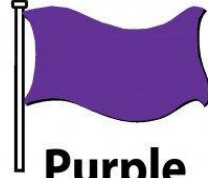
**Red**  
High Hazard  
(rough conditions,  
such as strong surf  
and or currents)



**Yellow**  
Medium Hazard  
(light surf and or  
currents)

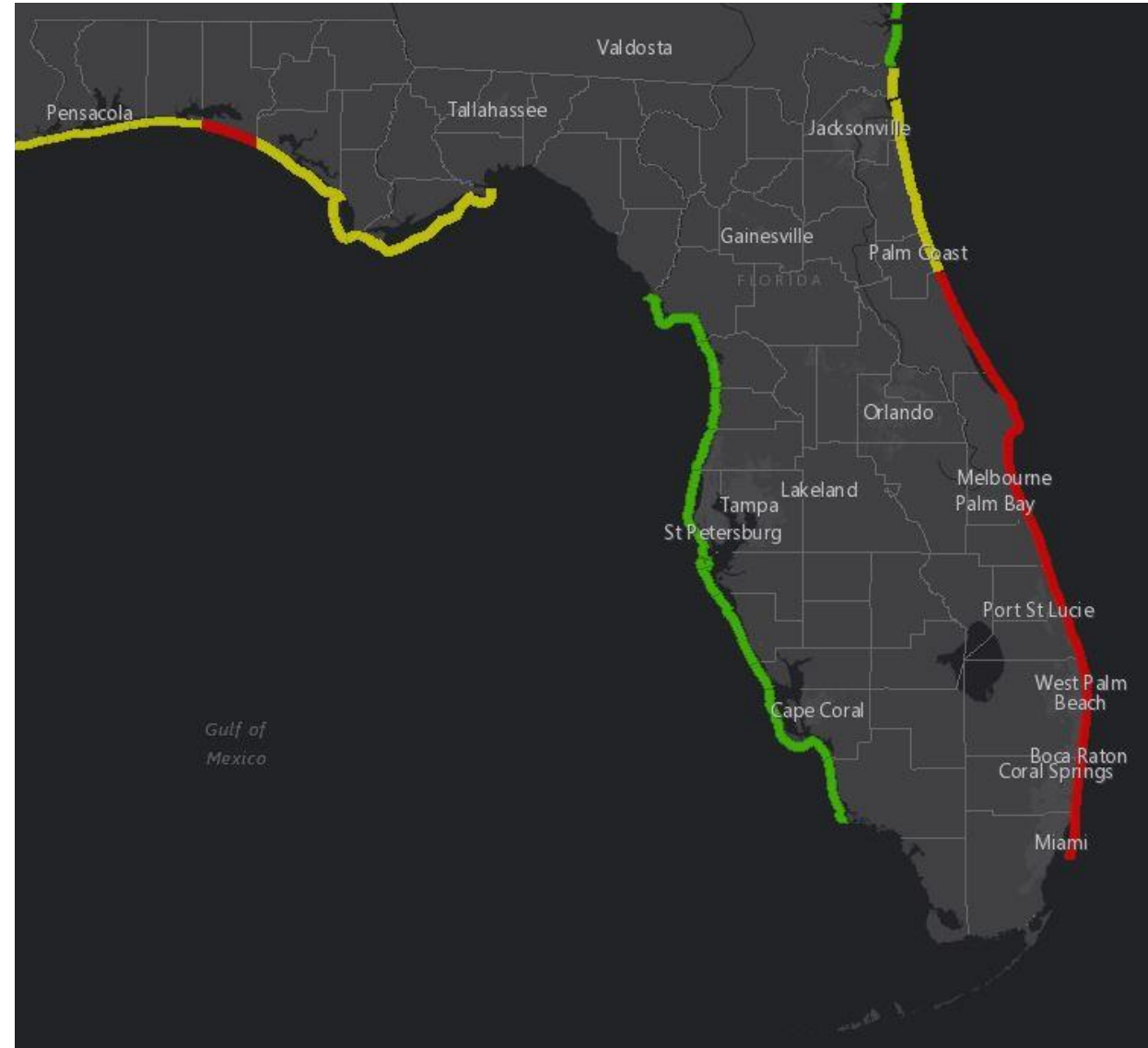


**Green**  
Low Hazard  
(calm conditions)



**Purple**  
Marine Pest  
(jellyfish, stingrays  
& dangerous fish)

Rough surf and high water levels will keep the rip current risk high at Atlantic beaches through the weekeknd.



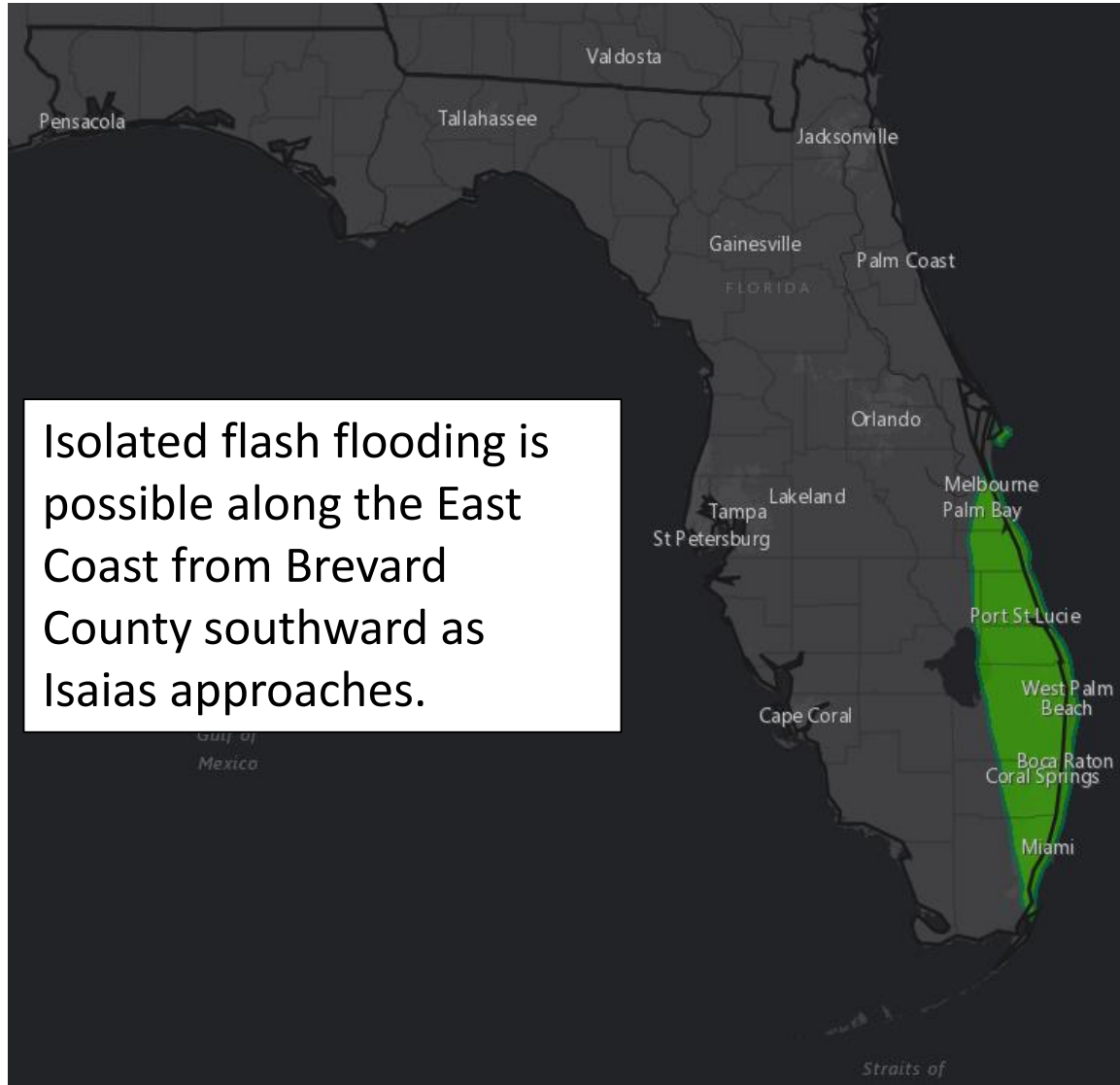










# Flash Flood Outlook - Saturday

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

Isolated flash flooding is possible along the East Coast from Brevard County southward as Isaias approaches.



## 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
<a href="http://www.wpc.ncep.noaa.gov">@NWSWPC</a>	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.
Flash flooding near me?	Flash Flooding	Flash Flooding	Flash Flooding	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%**

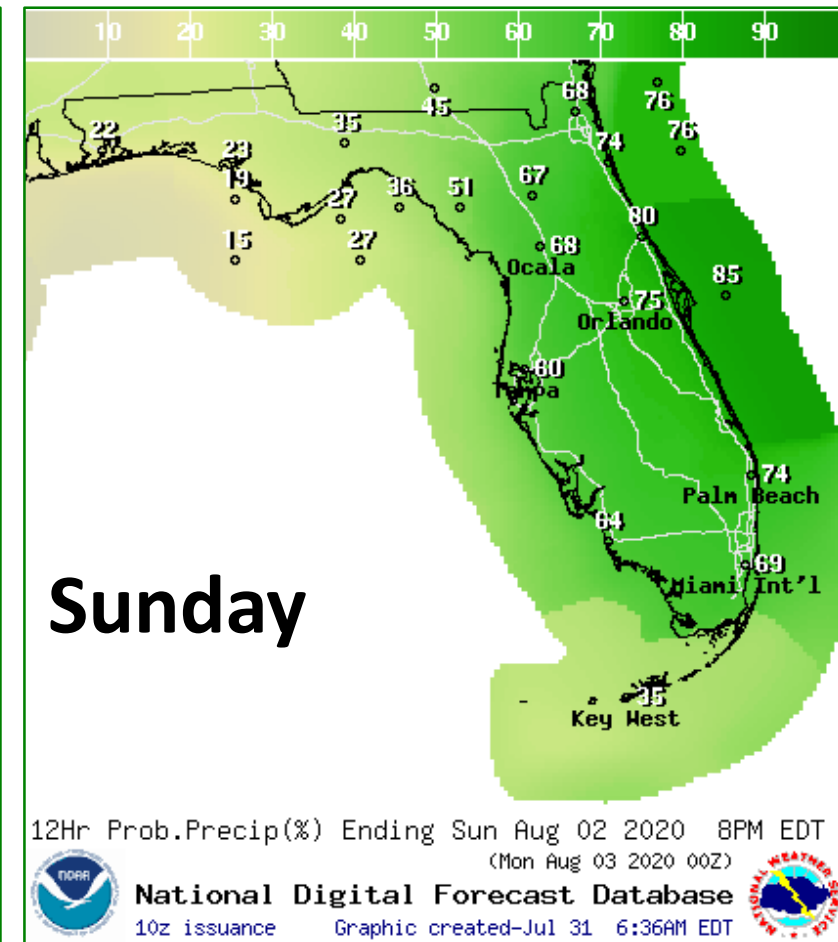
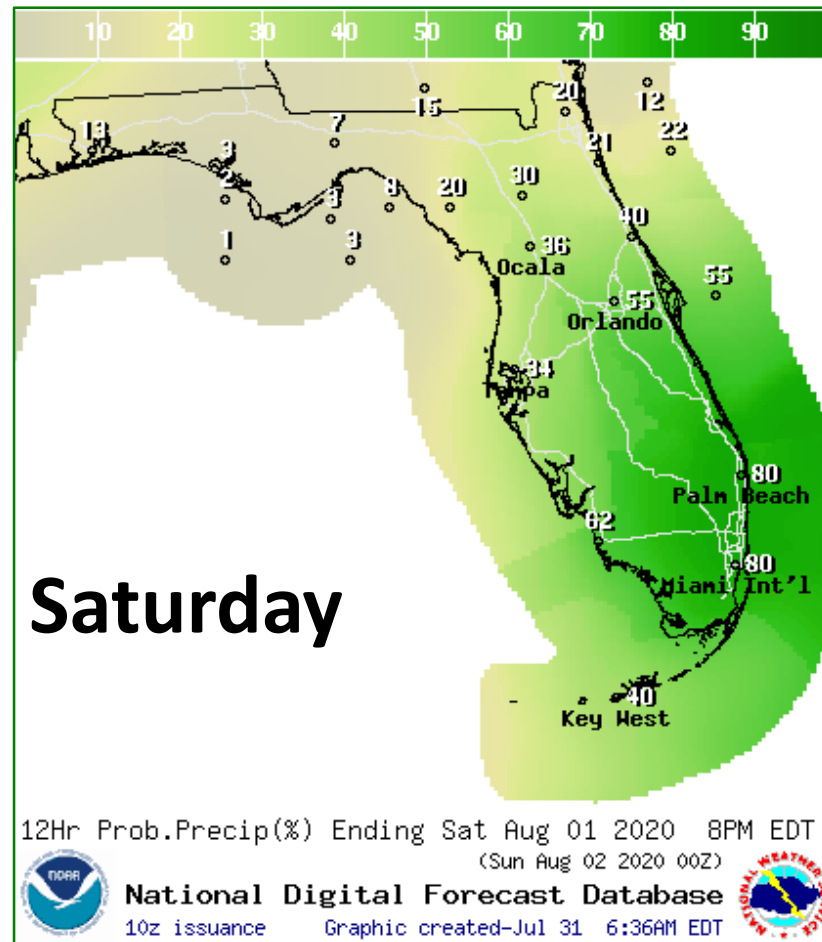
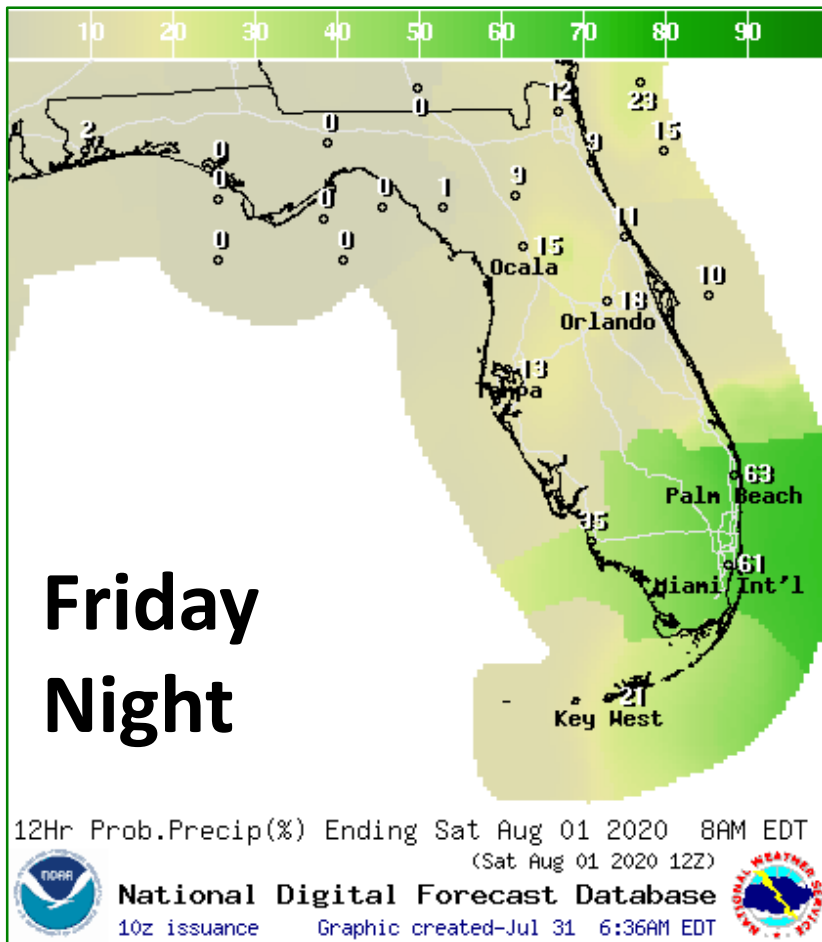
**SLGT: 10%-20%**

**MDT: 20%-50%**

**MRGL: 5%-10%**



# Rain Chances Next 3 Days



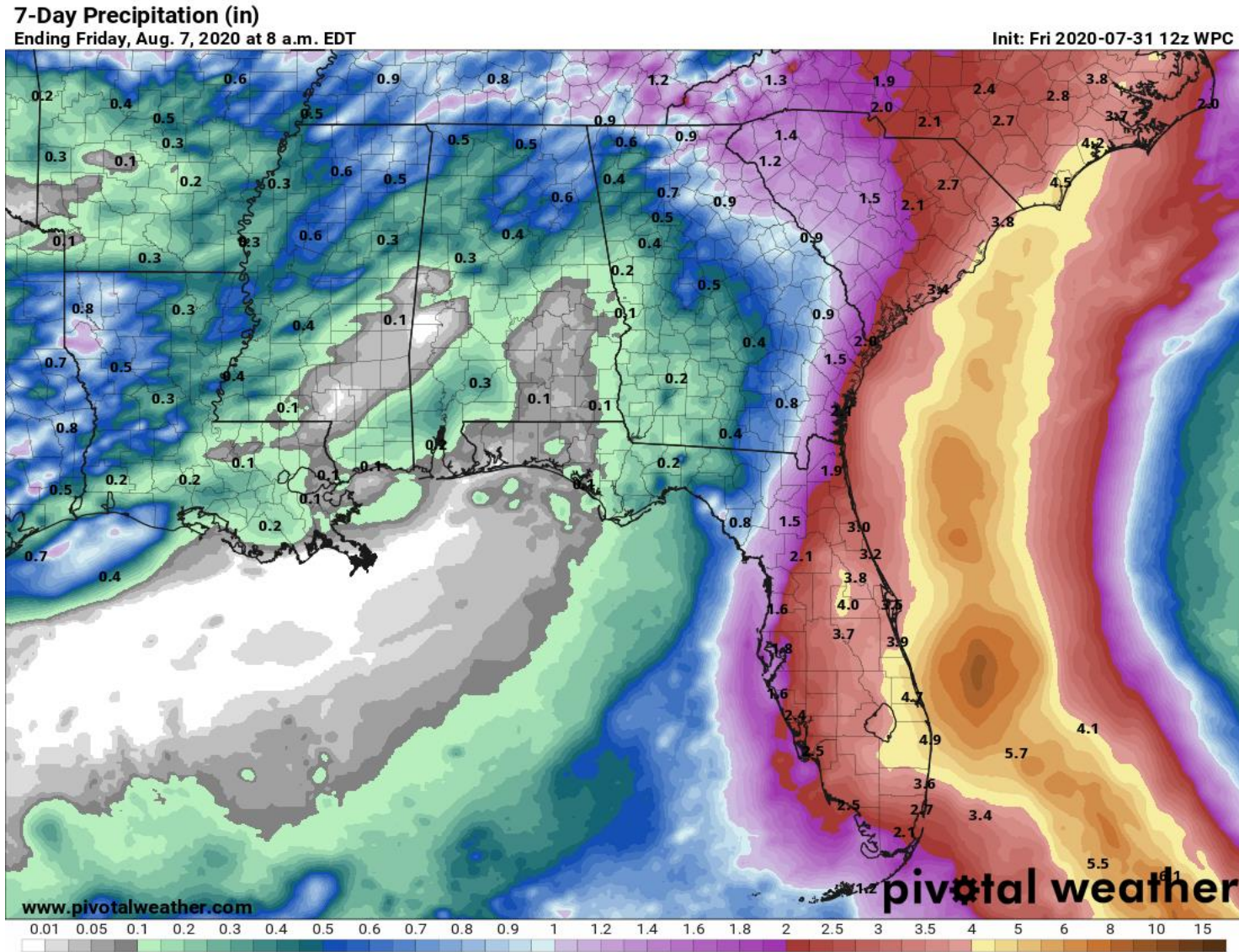
**Rain chances in Southeast Florida will begin tonight, then across the Peninsula on Saturday, and into Northeast Florida by Sunday.**





# Forecast Rainfall Totals Next 7 Days

- About 4-6" of rain are possible along the East Coast, 2-4" inland
- Localized totals double these amounts will be possible.
- Isolated flash flooding possible, especially in the urban areas of Southeast Florida
- A western track would lead to higher rainfall totals across the Peninsula
- An eastern track would lower rain totals and keep most of the rain offshore.

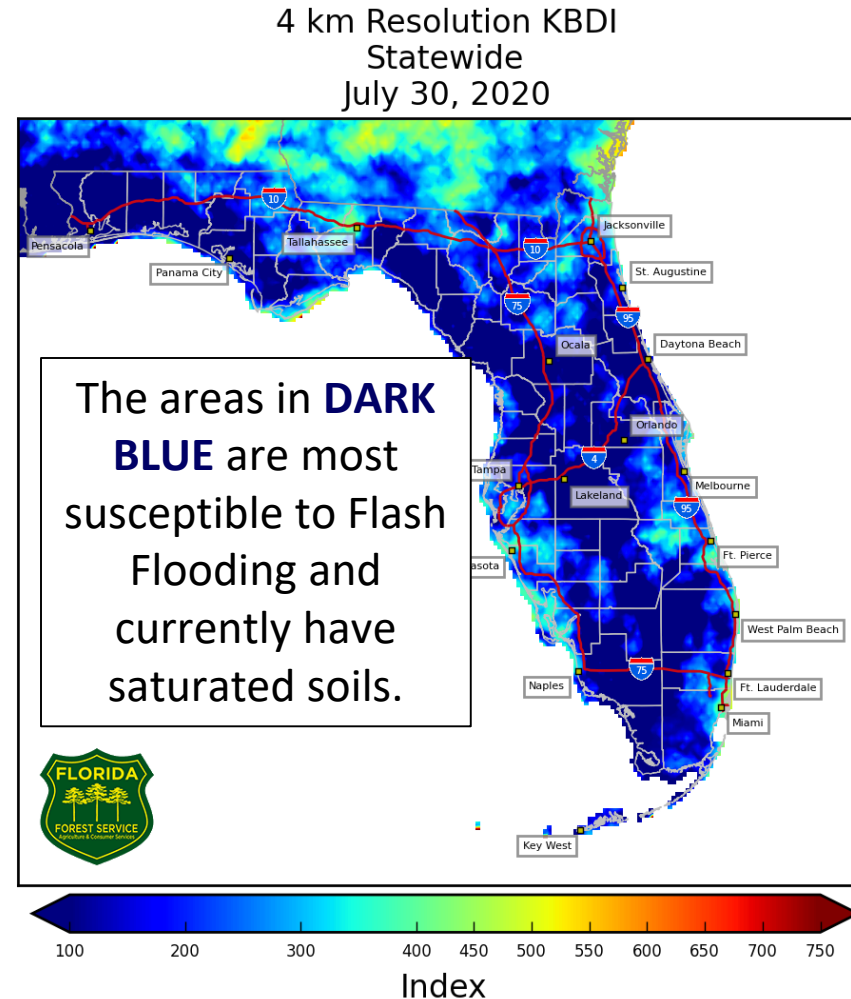
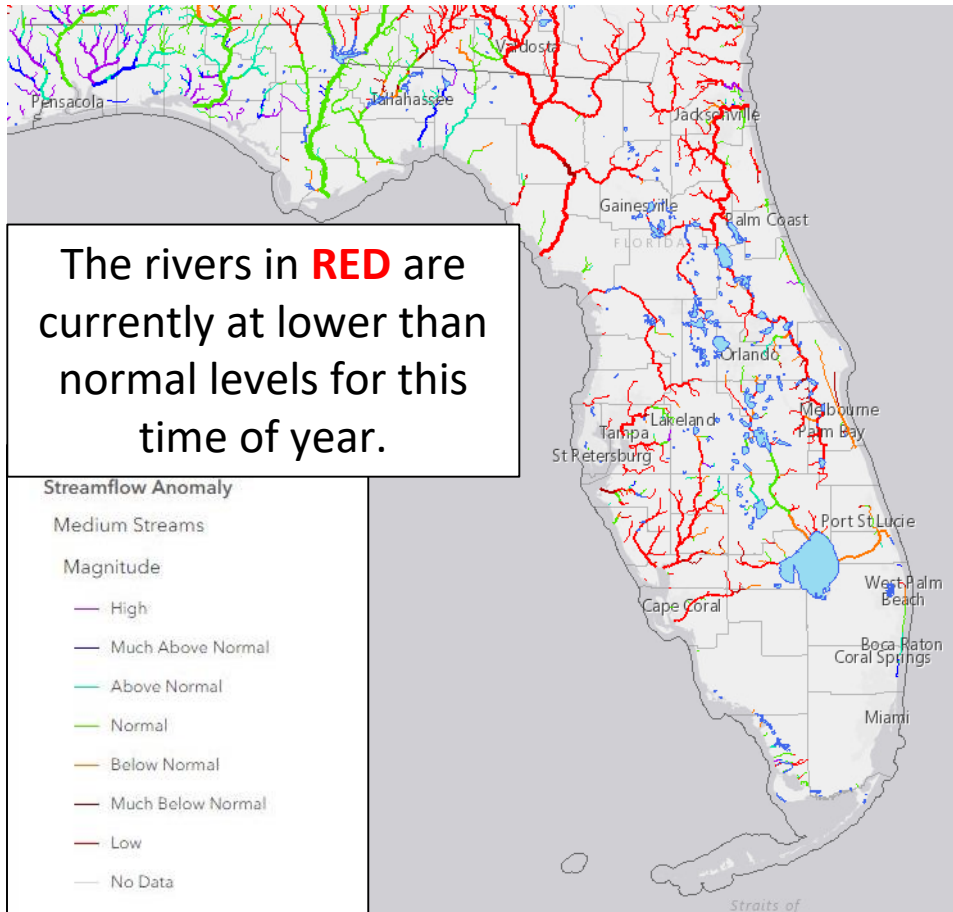






# Streamflow Anomaly – Soil Moisture

KB Drought Index – [Full Report from the Florida Forest Service](#)



Streamflows are near to below normal across the entire Peninsula, but soils remain quite saturated. If heavier rainfall occurs, then flash flooding will be a concern.

Most rivers are able to handle 3-5" of rainfall, but flooding concerns may rise if heavier rainfall occurs.

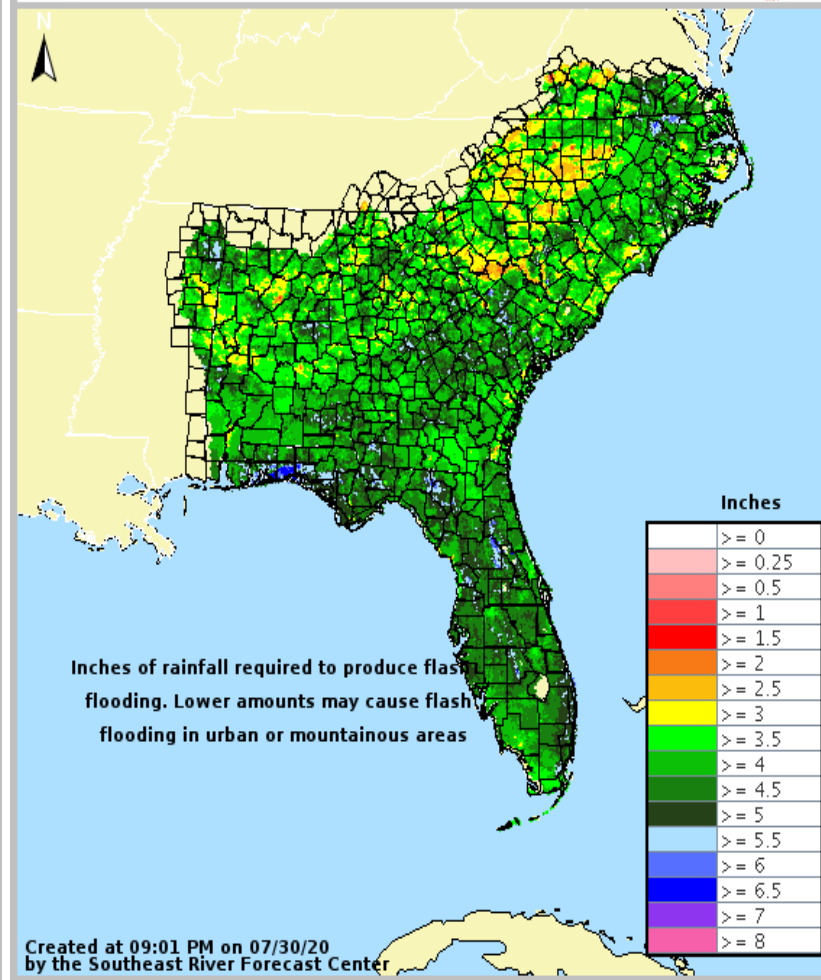
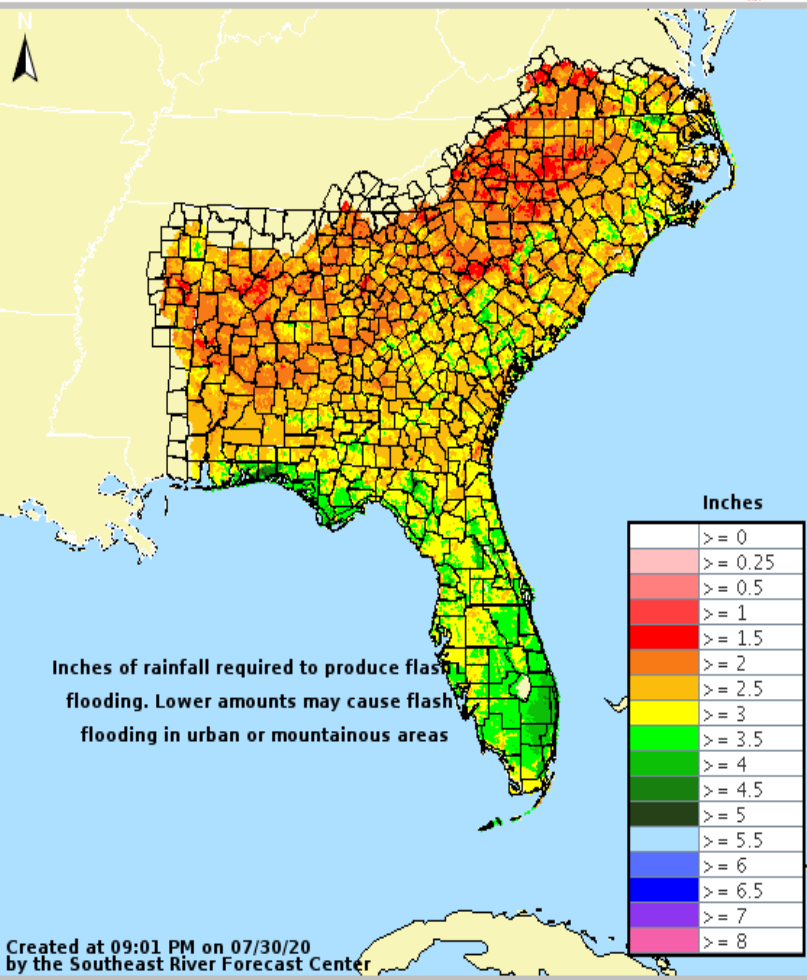


# Flash Flood Guidance

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



In general, more than 3 or 4" of rain in a short period of time will result in flash flooding.





# Tropical Weather Outlook

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



## Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

Disturbance 1

An area of low pressure located a couple of hundred miles east-southeast of the Cabo Verde Islands is producing disorganized showers and thunderstorms. This low has a small window of opportunity to become a tropical depression today while it moves northward at about 10 mph before environmental conditions become less conducive for development.

The next name on the list is Josephine.

**This system does not pose a threat to Florida.**

**\*Formation chance through 48 hrs...medium...40%**

**\*Formation chance through 5 days...medium...40%**

2:00 am EDT  
Fri Jul 31 2020

Current Disturbances and Five-Day Cyclone Formation Chance:  
Tropical or Sub-Tropical Cyclone: ○ Depression ⚡ Storm ⚡ Hurricane  
⊗ Post-Tropical Cyclone or Remnants

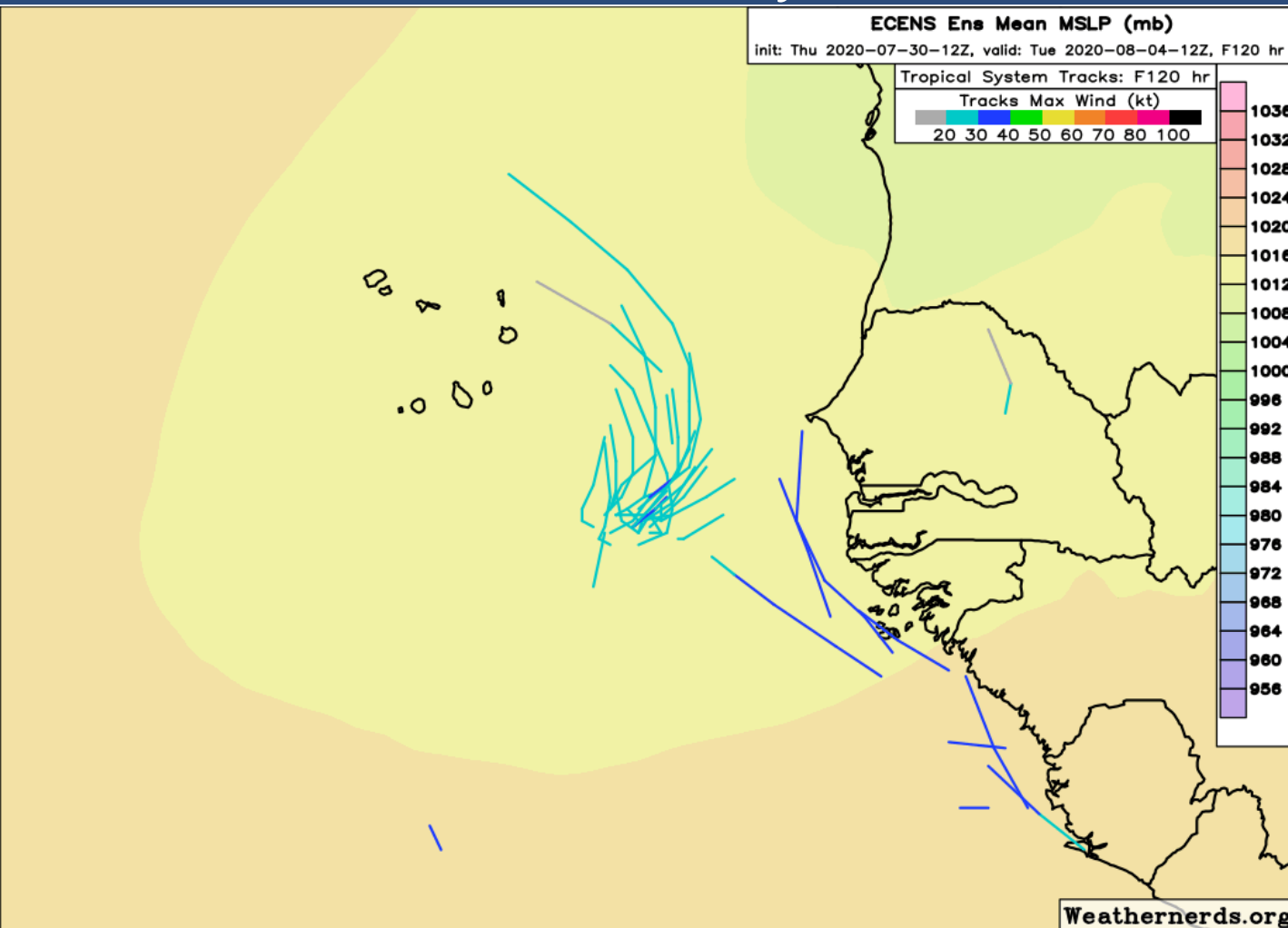
✖ < 40% ✖ 40-60% ✖ > 60%





# Model Forecast Tracks

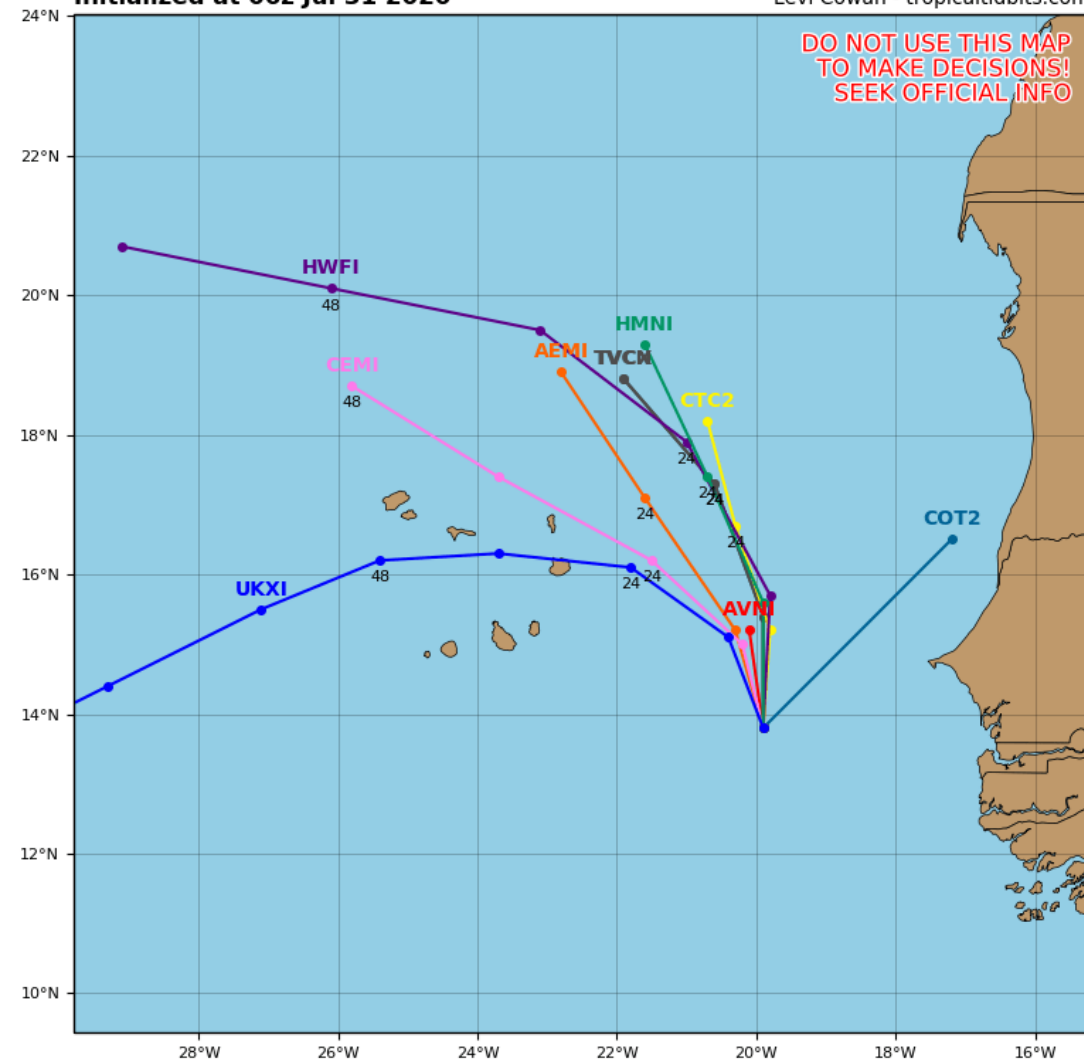
## Ensembles, Dynamical, and Statistical Models



### Invest 93L Model Track Guidance

Initialized at 06z Jul 31 2020

Levi Cowan - tropicaltidbits.com



Invest 93L will hook around the Cabo Verde Islands before dissipating in about 48 hours.



# Tropical Weather Outlook

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



## Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



www.hurricanes.gov

Disturbance 2

2  
(20%)



2:00 am EDT  
Fri Jul 31 2020

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

A westward-moving tropical wave located about 1000 miles east of the Lesser Antilles is producing a limited amount of shower activity. Some slow development of this system is possible while it turns northwestward over the western Atlantic early next week.

The next name on the list is Josephine.

**This system does not pose a direct threat to Florida at this time.**

\*Formation chance through 48 hrs...low...near 0%

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



# Overall Summary

## **Hurricane Isaias**

- Isaias continued to reorganize overnight, with the center located about 550 miles southeast of Miami, FL, moving northwest at 17 mph.
- Maximum sustained winds are near 80 mph (Category 1 Hurricane). Strengthening is forecast, and Isaias is forecast to become a category 2 hurricane with winds near 100 mph on Saturday in the Bahamas.
- Thereafter, some weakening may occur as the system nears Florida and turns northward. More weakening would tend to mean a track closer to Florida, where a stronger hurricane is more likely to remain offshore.
- A north to northeast motion is expected early next week with the system paralleling the East Coast of the United States.

## **Invest 93L (Cabo Verde Islands)**

- A tropical wave near the Cabo Verde Islands is showing some signs of organization. Environmental conditions are currently favorable for development, but only over the next 36 hours.
- This system has a 40% chance of forming into a tropical depression before moving over colder waters.
- This system poses no threat to Florida.

## **Eastern Atlantic Tropical Wave**

- A tropical wave about halfway between the Caribbean and Africa is producing limited shower activity as it moves west.
- Some slow development of this system is possible next week while it turns northwest over the western Atlantic.
- This system is not forecast to be a direct threat to Florida, but may prolong the rip current risk into next week.





# Overall Summary

## Florida Outlook:

- **Isaias poses a direct threat to Florida starting as early as tonight, but more likely beginning Saturday morning.**
- **Tropical Storm Watch:** Indian River, St. Lucie, Martin, Palm Beach, Broward, coastal and metro Miami-Dade
- **Wind gusts from 40-65 mph are generally forecast in the watch area on Saturday and Sunday.**
- Heavy rainfall of 4-6" with localized totals possibly double that will be possible across the East Coast. Rainfall will be dependent on the track of Isaias.
- Soils remain saturated from the fairly active wet season across much of the Peninsula, which could lead to an elevated flash flood threat this weekend.
- Streamflows in the Peninsula are running near to below normal, and it may take more than 3-5" of rain to cause flooding issues along the rivers in the Peninsula.
- Isolated tornadoes may be possible, especially if the center moves over the state.
- It remains too early to get specific about storm surge impacts to the state, but the potential exists for some storm surge impacts along the East Coast, particularly in Northeast Florida. Only 1-2' is currently forecast in Southeast Florida.
- Elevated surf, dangerous rip currents, and beach erosion will be likely at most Atlantic beaches this weekend.

The next briefing packet will be issued later this 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



Created by:

Michael Spagnolo, Deputy State Meteorologist

[Michael.Spagnolo@em.myflorida.com](mailto:Michael.Spagnolo@em.myflorida.com)

State Meteorological Support Unit

Florida Division of Emergency Management

Users wishing to subscribe (approval pending) to this distribution list, register at:

[https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic\\_id=SERT\\_Met\\_Tropics](https://public.govdelivery.com/accounts/FLDEM/subscriber/new?topic_id=SERT_Met_Tropics).

Other reports available for subscription are available at:

<https://public.govdelivery.com/accounts/FLDEM/subscriber/new?preferences=true>