



# TROPICAL UPDATE



11:00 AM EDT

Friday, July 31, 2020

Hurricane Isaias, Invest 93L (20%),  
& 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





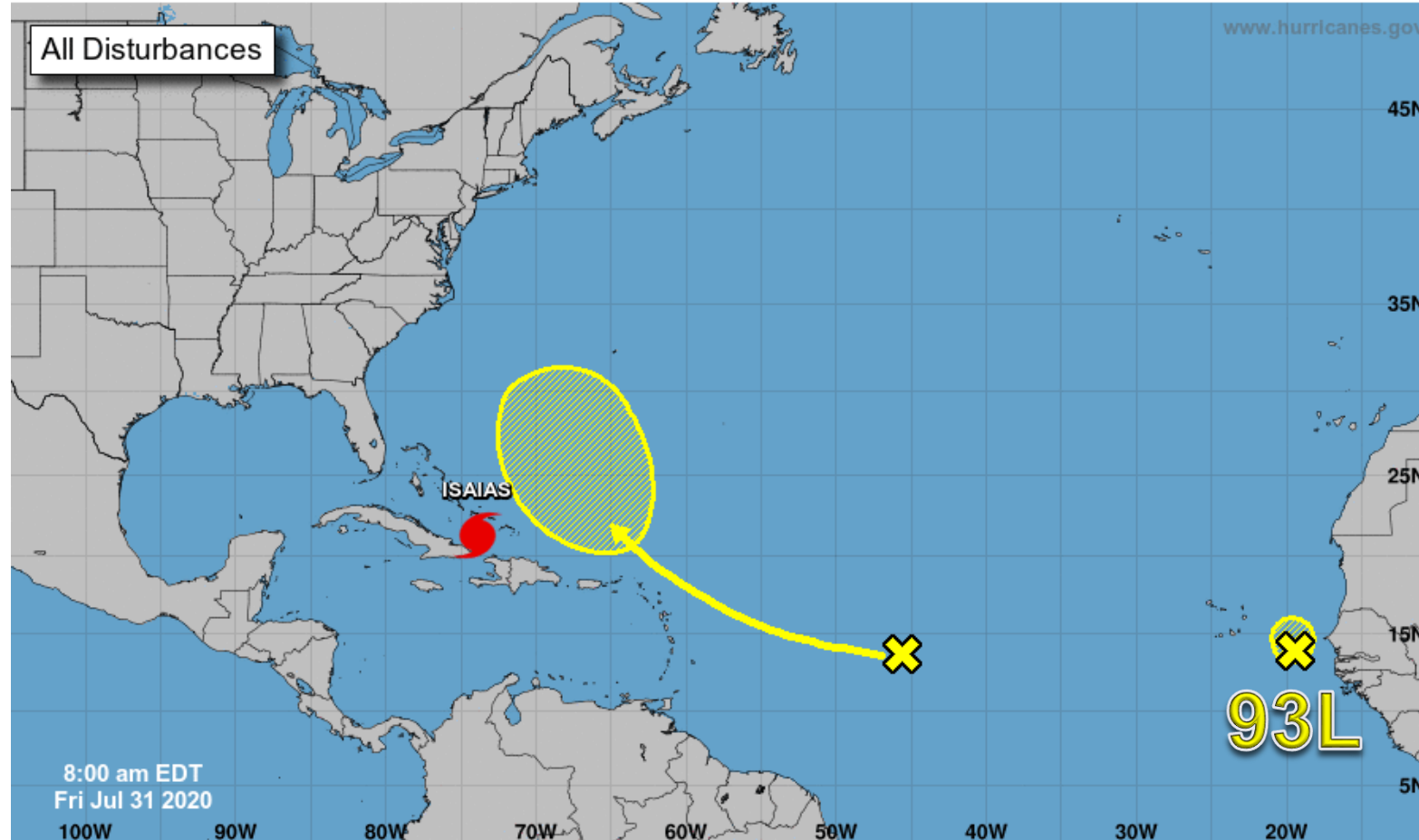


# Tropical Weather Outlook

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





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



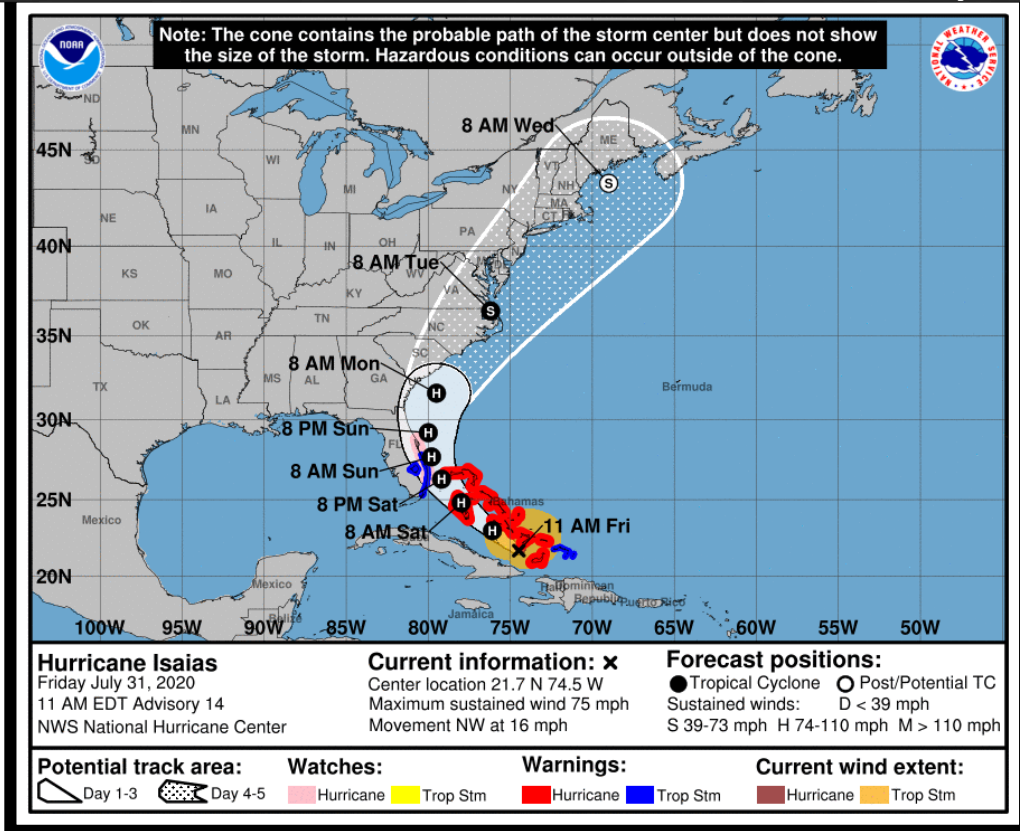
Current Disturbances and Five-Day Cyclone Formation Chance: X < 40% X 40-60% X > 60%  
Tropical or Sub-Tropical Cyclone: ○ Depression ◉ Storm ⦿ Hurricane  
⊗ Post-Tropical Cyclone or Remnants

# Hurricane Isaias Friday, July 31

	MINIMAL	Low	MODERATE	HIGH	EXTREME
 WINDS					
 STORM SURGE					
 FLASH FLOODING					
 TORNADOES					

	Low	MODERATE	HIGH
 RIP CURRENTS			

## National Hurricane Center Map



### Overview/Recent Changes:

Isaias is maintaining strength as a Category 1 hurricane and moving to the northwest. Additional strengthening is forecast over the next 48 hours as Isaias nears the East Coast of Florida. \*Hurricane Watches\* have now been issued. A Tropical Storm Warning is also in effect for Southeast Florida. Small shifts in the track will have large changes on the impacts.



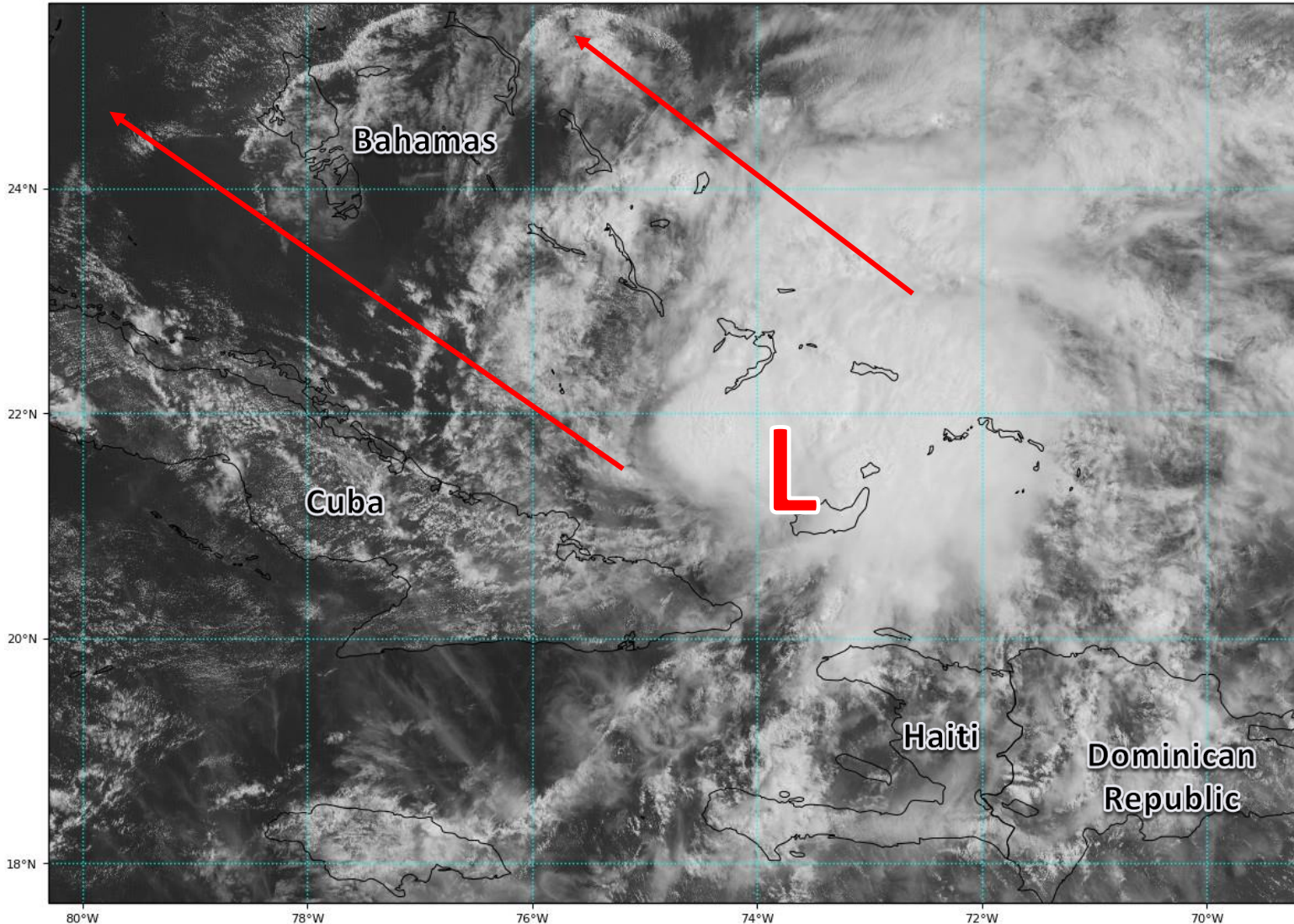


# Satellite Imagery

## Southwest Atlantic – Hurricane Isaias

GOES-16 Channel 2 (visible) Reflectance at 14:32Z Jul 31, 2020

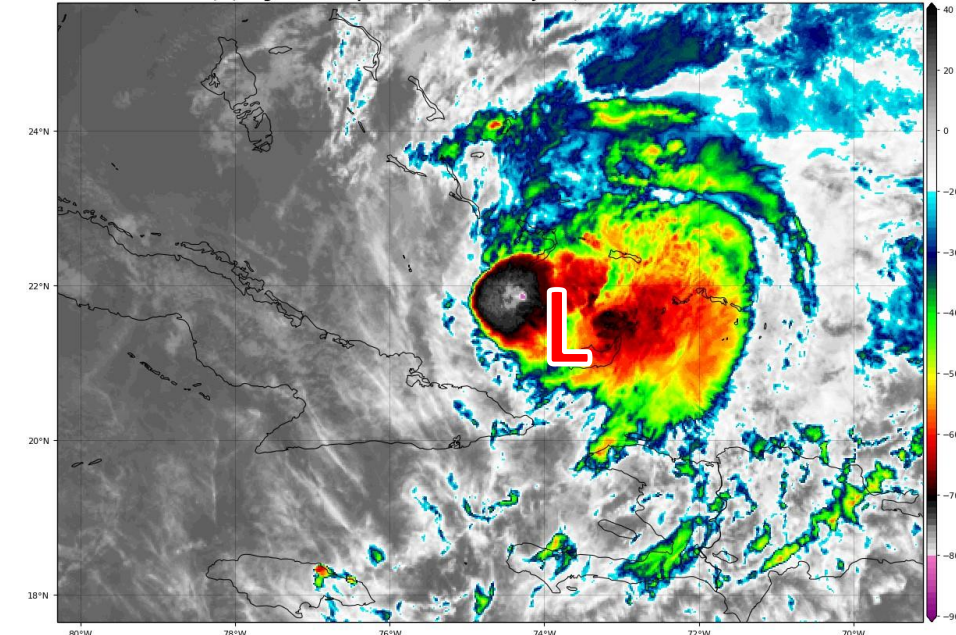
TROPICALTIDBITS.COM



Isaias continues to organize over the southeastern Bahamas as it has moved away from the high mountains of Haiti and the Dominican Republic. Isaias will continue to strengthen today as it moves to the northwest.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:32Z Jul 31, 2020

TROPICALTIDBITS.COM





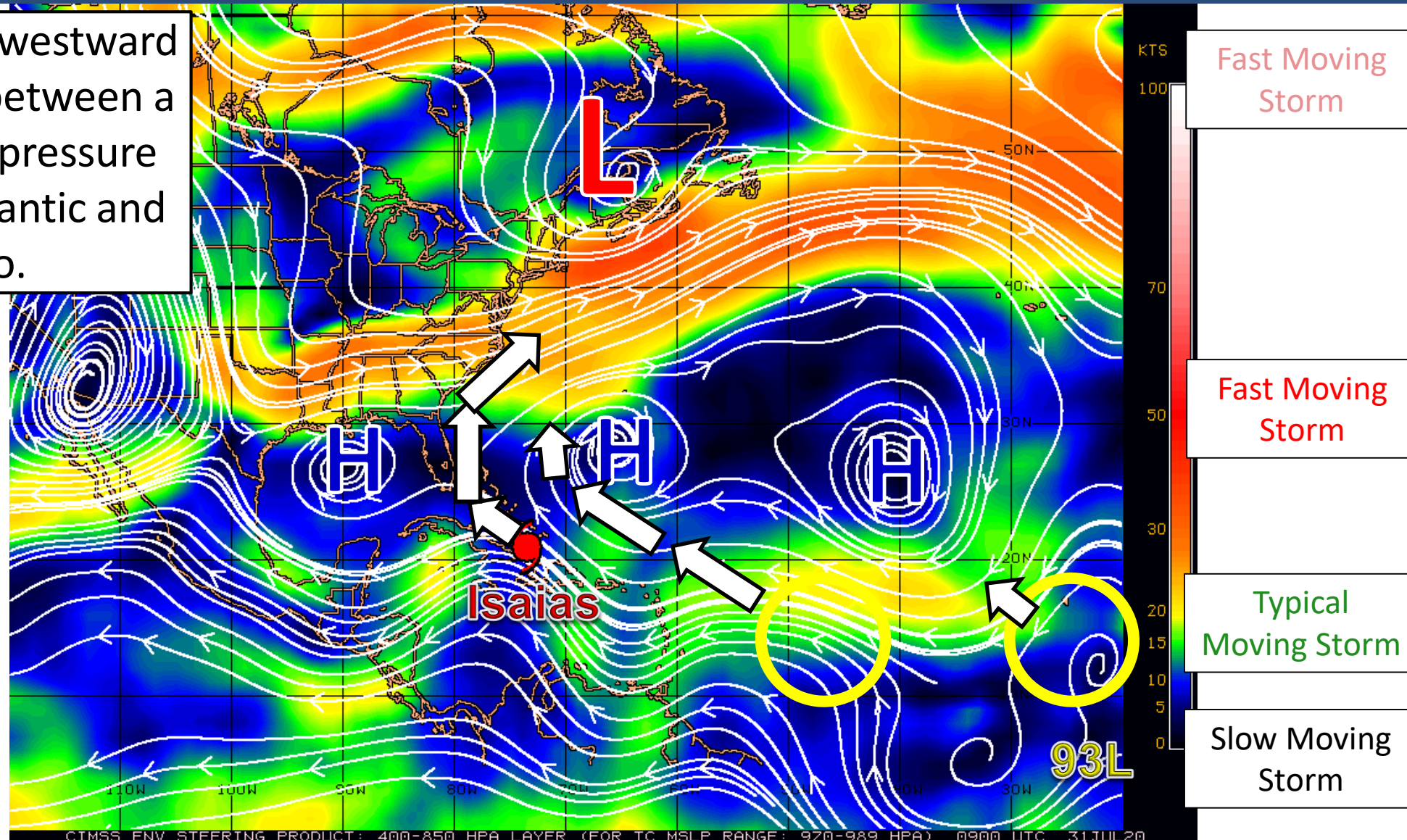


# Steering Currents

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.

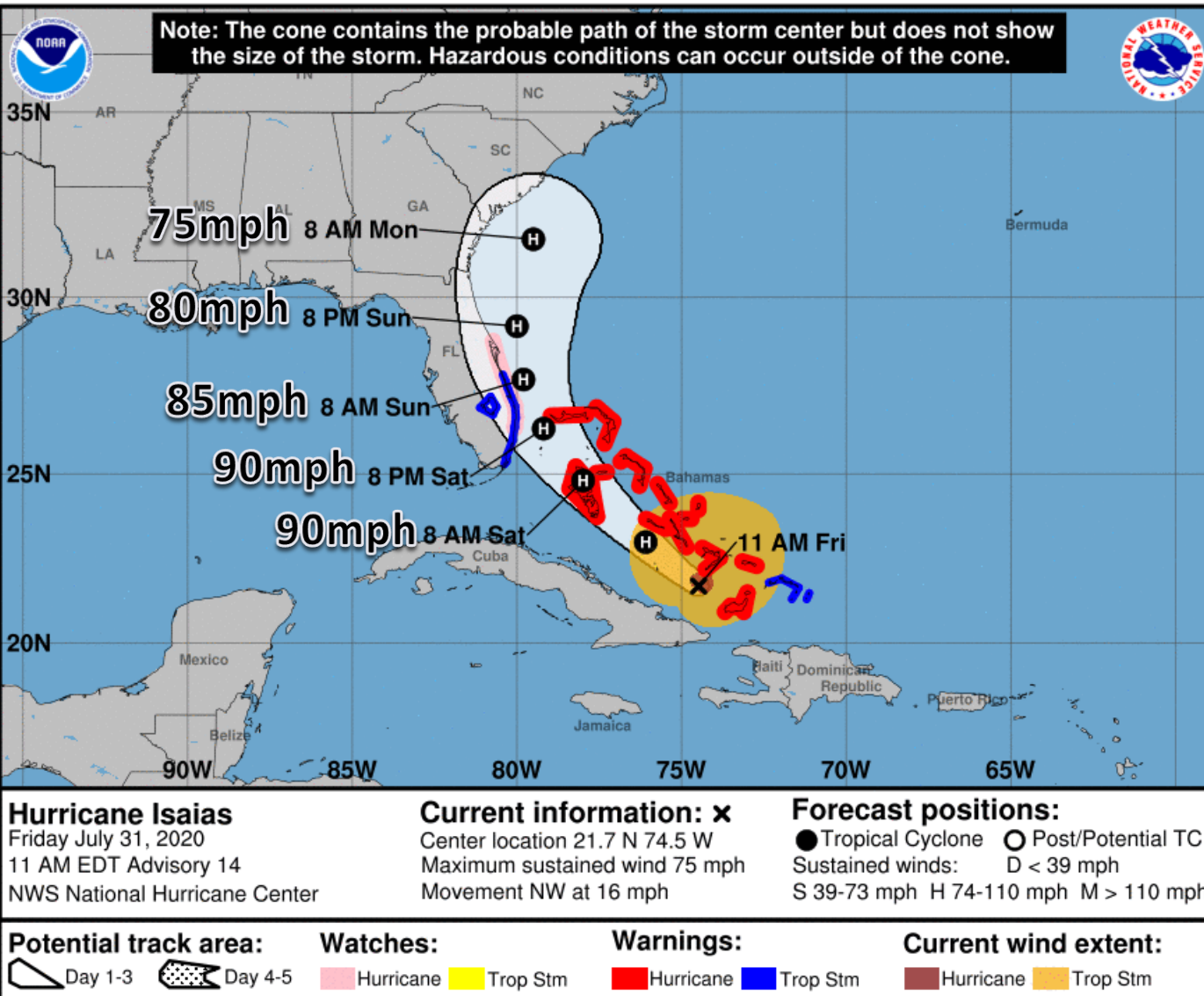
Isaias will move northwestward and then northward between a break in a large high pressure system across the Atlantic and Gulf of Mexico.





# Official Forecast Track

## From the National Hurricane Center – Hurricane Isaias



- The center of Hurricane Isaias is about 450 miles southeast of Miami, Florida, moving to the NW at 16 mph.
- Maximum sustained winds are around 75 mph, making it a category 1 hurricane.
- Some strengthening is forecast today and tomorrow as the system moves over the very warm water in the Bahamas.
- 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, and thus hurricane watches have been issued.
- Tropical Storm Warnings are in effect from Sebastian Inlet to Ocean Reef, including Lake Okeechobee

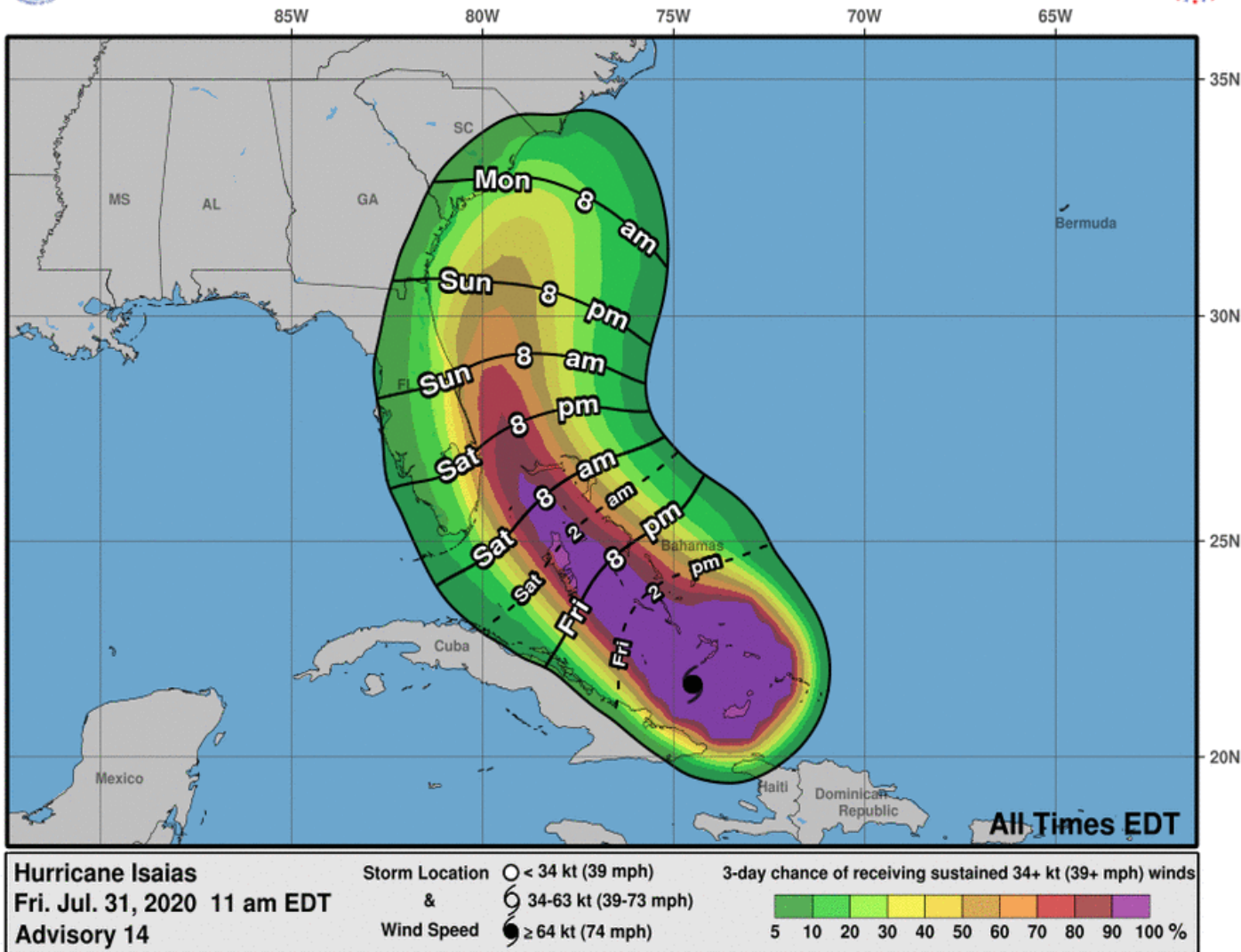




# Time of Arrival & Wind Speed Probabilities

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

## 0-3 Day Most Likely Arrival Time of Tropical-Storm-Force Winds



**Key West: 4% (+1)**  
**Miami: 30% (+10)**  
**Naples: 11% (+3)**  
**Ft. Lauderdale: 56% (+12)**  
**West Palm Beach: 67% (+13)**  
**Ft. Pierce: 63% (+11)**  
**Daytona Beach: 29% (+7)**  
**Orlando: 23% (+7)**  
**Tampa: 7% (-2)**  
**Jacksonville: 13% (+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

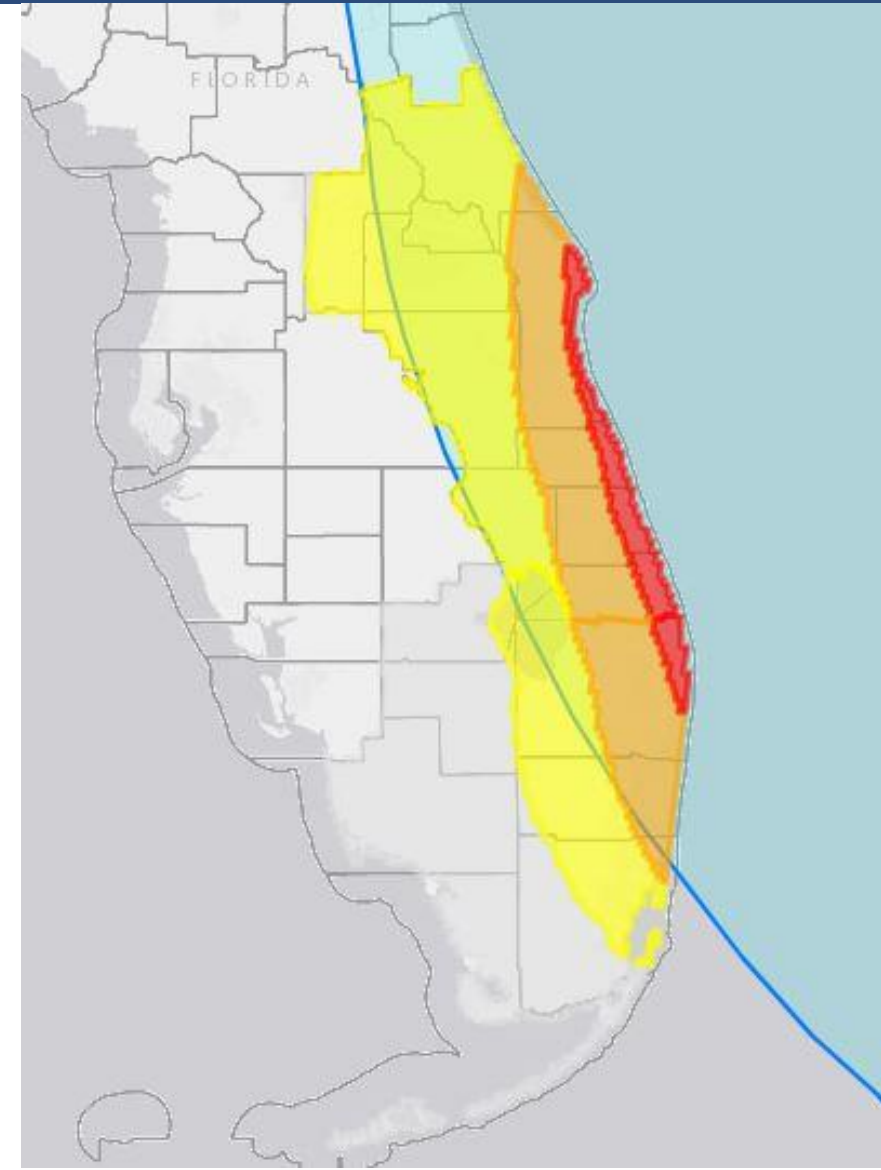
The greatest wind threat is along the immediate coast (Treasure Coast) of Southeast Florida, mainly along and east of I-95.

Higher gusts to 75 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



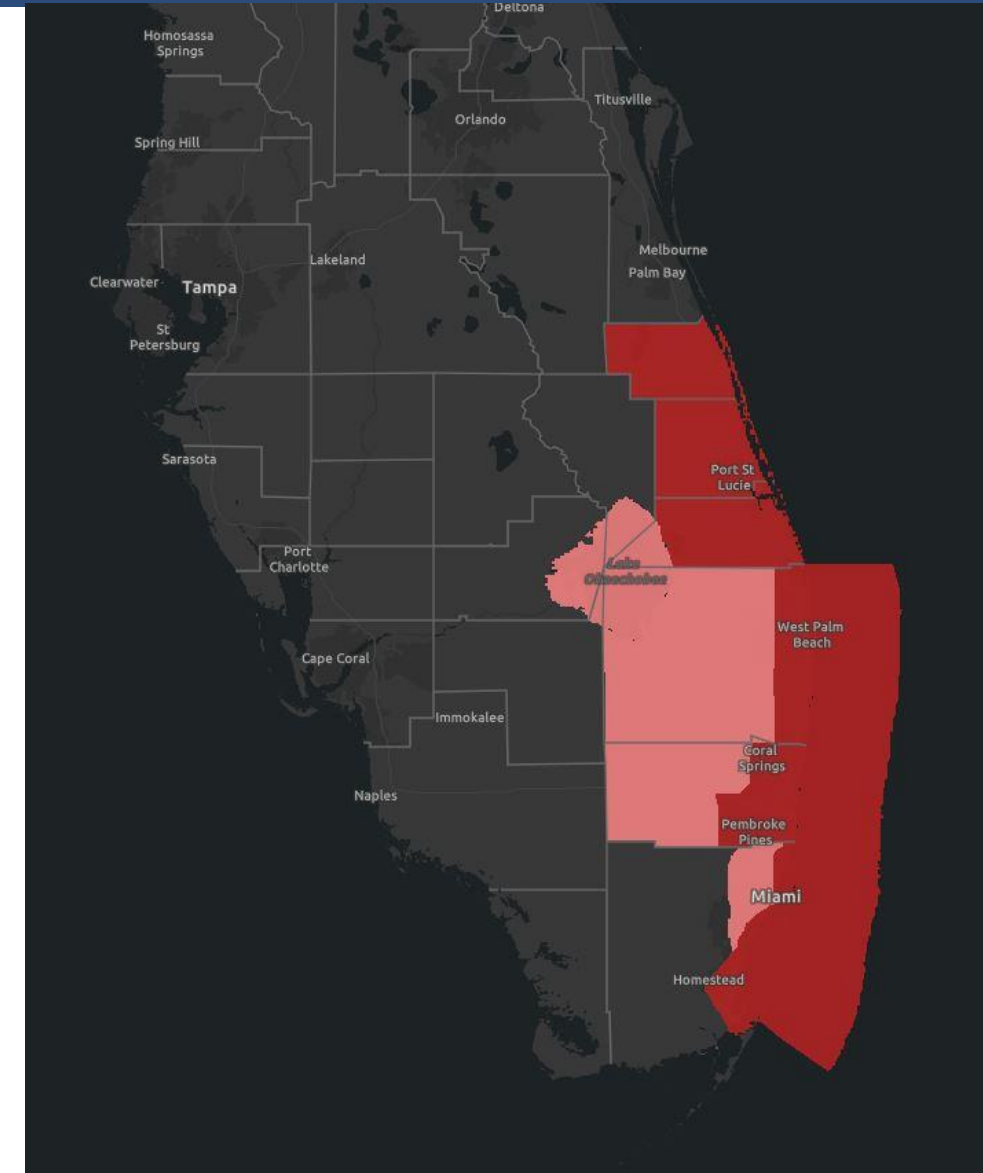


# Wind Watches and Warnings

In Effect Until Further Notice

**Tropical Storm Warnings** are in effect for: Indian River, St. Lucie, Martin, coastal Palm Beach, coastal Broward, and coastal Miami-Dade

**Tropical Storm Watches** are in effect for: inland Palm Beach, inland Broward, metro Miami-Dade, and Lake Okeechobee.





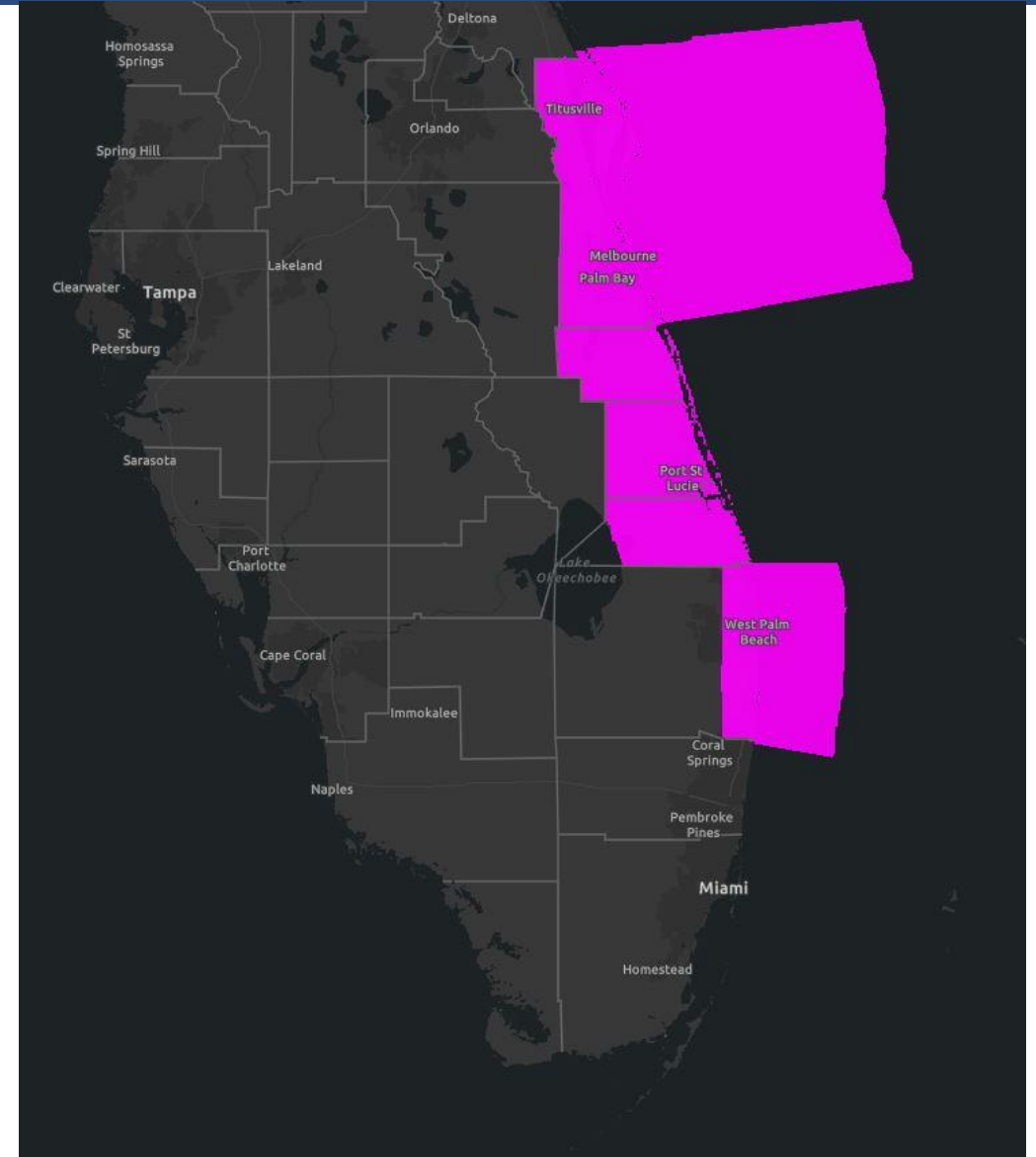


# Wind Watches and Warnings

In Effect Until Further Notice

**Hurricane Watches** are in effect from the Volusia/Brevard County line to Deerfield Beach.

**Counties:** Brevard, Indian River, St. Lucie, Martin, and coastal Palm Beach.





# 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



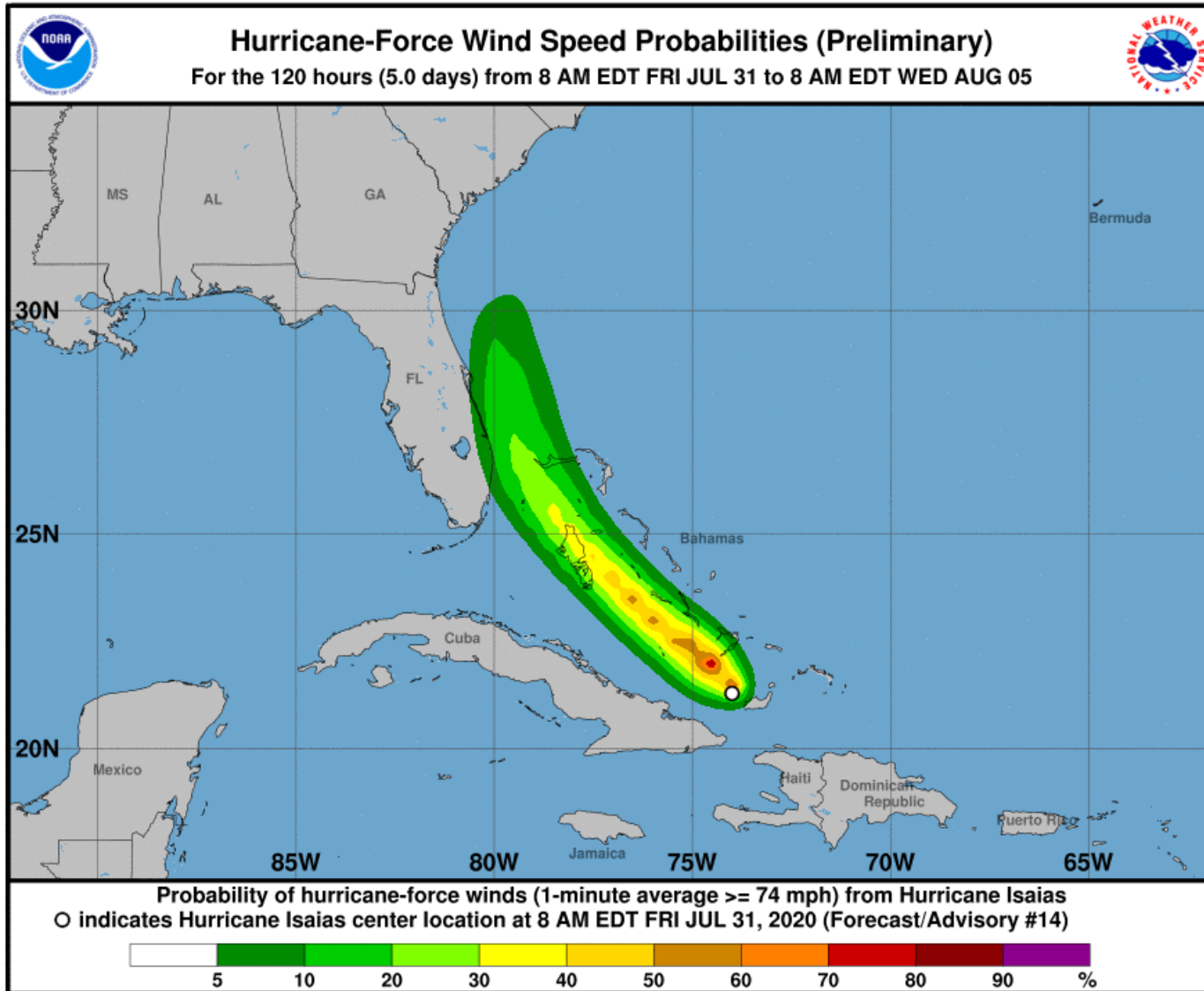
[weather.gov/mob](https://weather.gov/mob)





# Hurricane Wind Speed Probabilities

Probabilities of Sustained Hurricane Force Winds (>74 mph)



**5-10% along the Treasure Coast.**

**Higher chance of seeing gusts to near hurricane force.**



# 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 14: 11:00 AM EDT Fri Jul 31, 2020

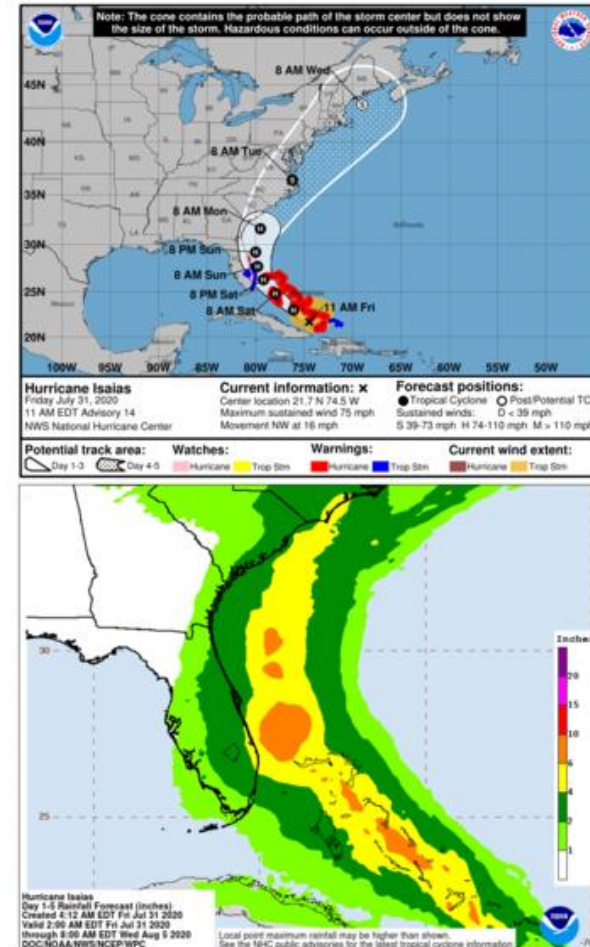


1. Isaias will produce heavy rains and potentially life-threatening flash flooding and mudslides across the Dominican Republic, northern Haiti, Turks and Caicos, and the Bahamas. Heavy rains associated with Isaias may begin to affect south and east-central Florida late Friday night, and the eastern Carolinas 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. Preparations to protect life and property should be rushed to completion.

3. Tropical storm conditions are expected with hurricane conditions possible along portions of the Florida east coast beginning Saturday, and a Tropical Storm Warning and Hurricane Watch are in effect. Storm surge watches or warnings could be needed for part of this area this afternoon.

4. There is a risk of impacts from winds, heavy rainfall, and storm surge beginning late this weekend along the northeastern Florida coast and spreading northward along the remainder of the U.S. east coast through early next week. Interests along the entire U.S. east coast should monitor the progress of Isaias and updates to the forecast.

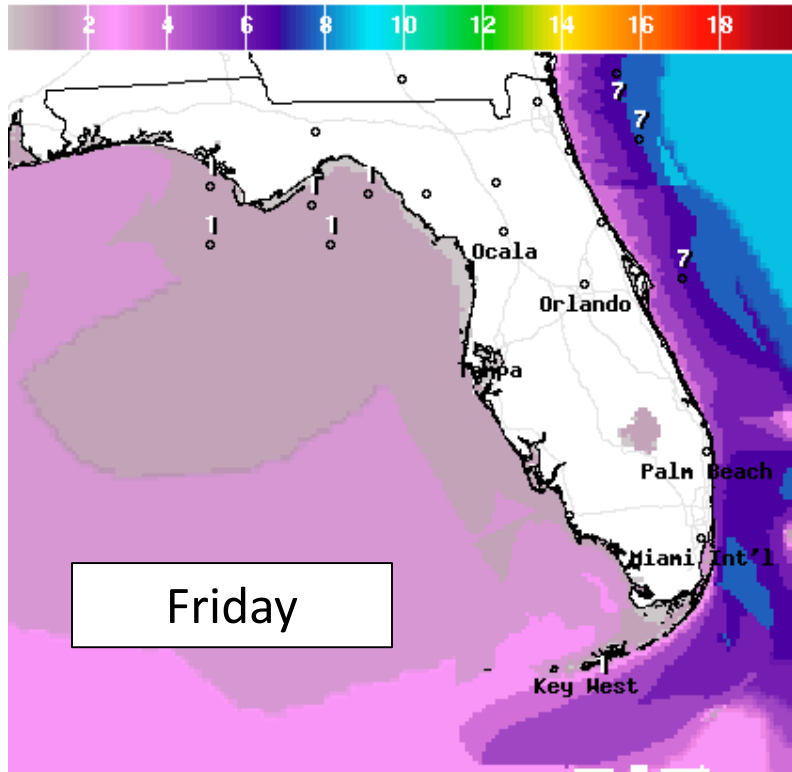


For more information go to [hurricanes.gov](https://hurricanes.gov)



# Forecast Wave Heights

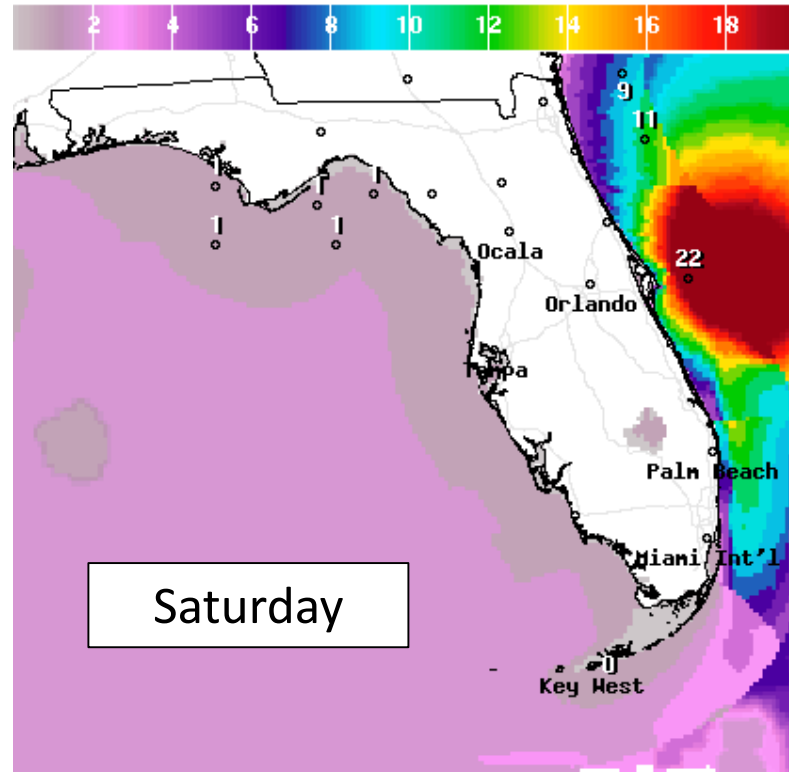
## This Weekend



Wave Height(ft) Ending Sat Aug 01 2020 8AM EDT  
(Sat Aug 01 2020 12Z)



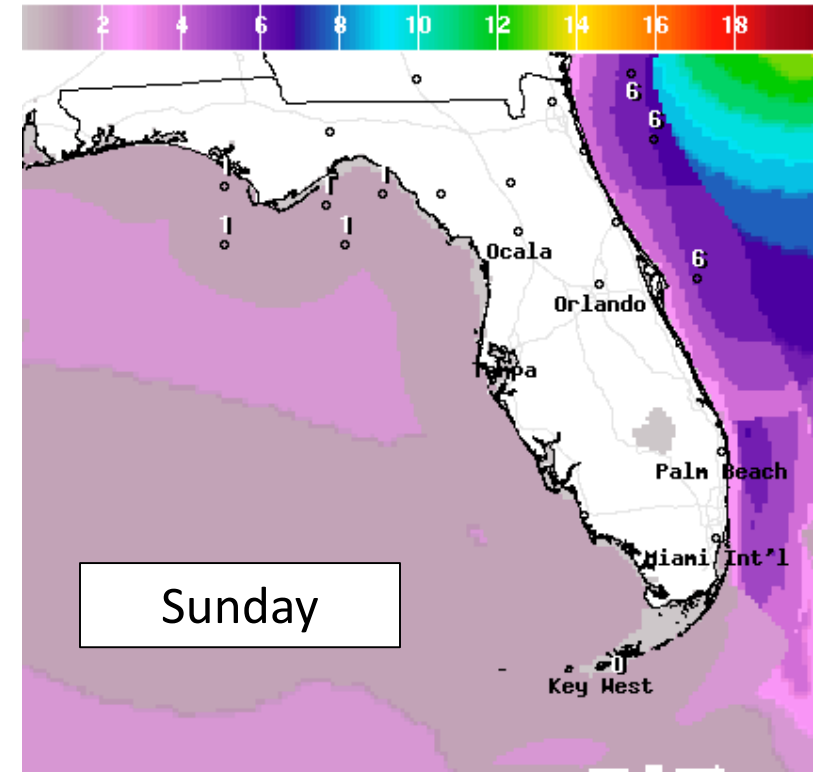
National Digital Forecast Database  
14z issuance Graphic created-Jul 31 10:24AM EDT



Wave Height(ft) Ending Sun Aug 02 2020 8AM EDT  
(Sun Aug 02 2020 12Z)



National Digital Forecast Database  
14z issuance Graphic created-Jul 31 10:24AM EDT



Wave Height(ft) Ending Mon Aug 03 2020 8AM EDT  
(Mon Aug 03 2020 12Z)



National Digital Forecast Database  
13z issuance Graphic created-Jul 31 9:32AM EDT



High surf of 8-12 feet is expected along East Coast beaches this weekend. This will result in dangerous rip currents. Minor to pockets of significant beach erosion is expected.

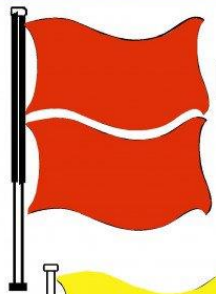




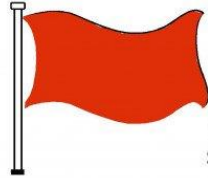
# Rip Current Outlook

Today

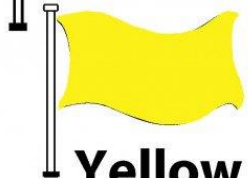
## BEACH FLAG WARNING SYSTEM



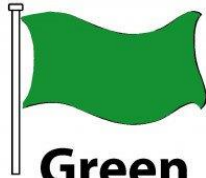
**Double Red**  
Water Closed to  
Public Use



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



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

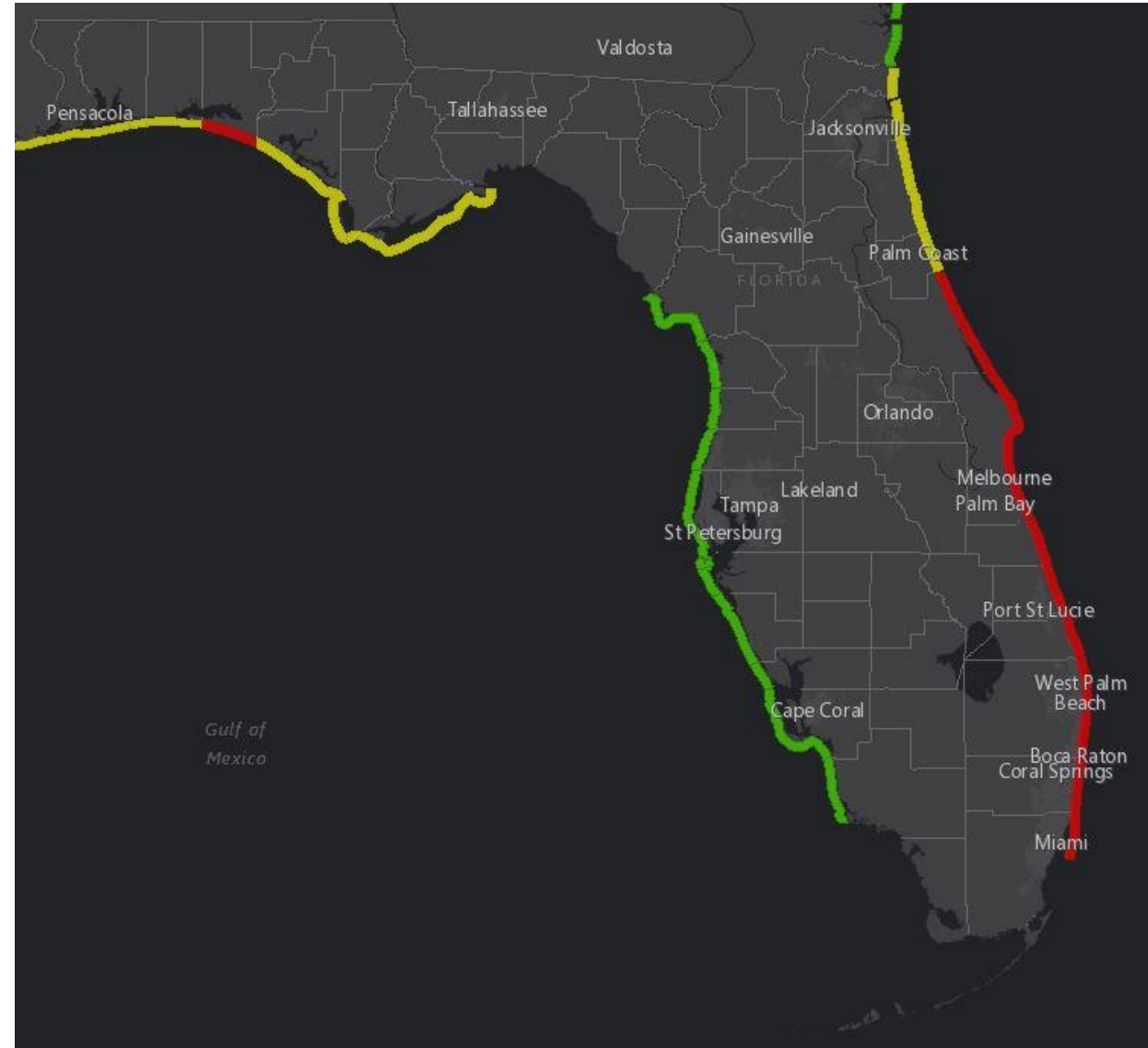


**Green**  
Low Hazard  
(calm conditions)



**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 Outlooks

From the Weather Prediction Center

Today/Tonight

Saturday

Sunday

**MARGINAL  
(MRGL)**

**Isolated flash  
floods possible**

Localized and  
primarily affecting  
places that can  
experience rapid  
runoff with heavy  
rainfall.

**SLIGHT  
(SLGT)**

**Scattered flash  
floods possible**

Mainly localized. Most  
vulnerable are urban  
areas, roads, small  
streams and washes.  
Isolated significant  
flash floods possible.

Risk of rainfall exceeding flash flood guidance  
within 25 miles of a point to the right of a line

**HIGH: > 50%**

**SLGT: 10%-20%**

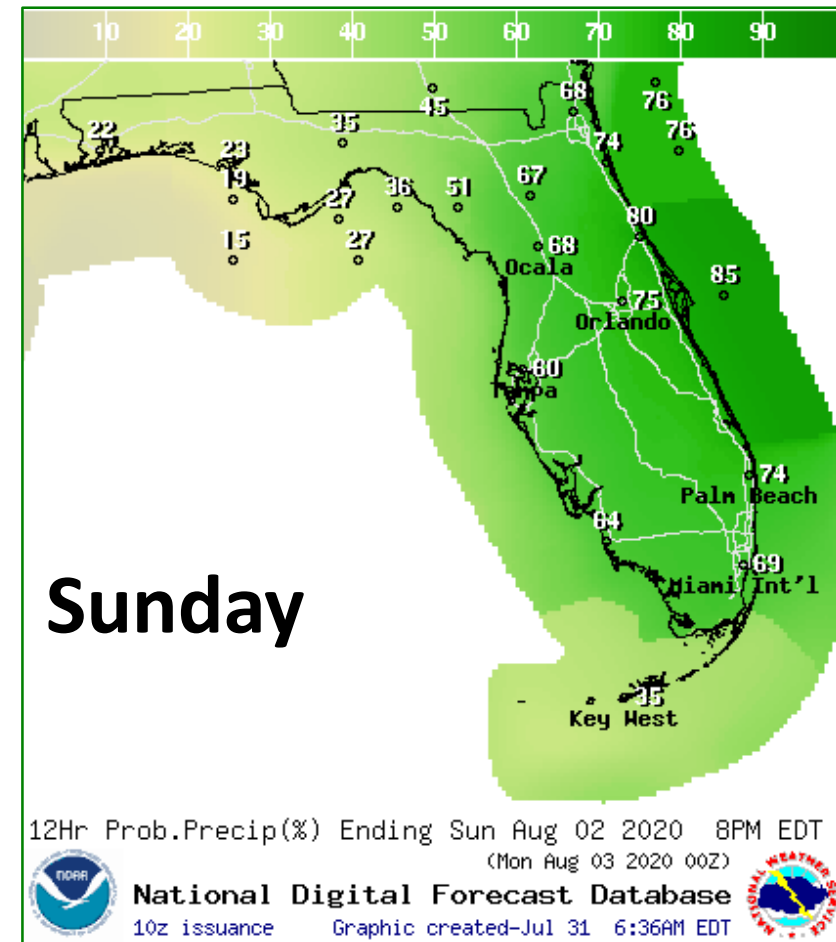
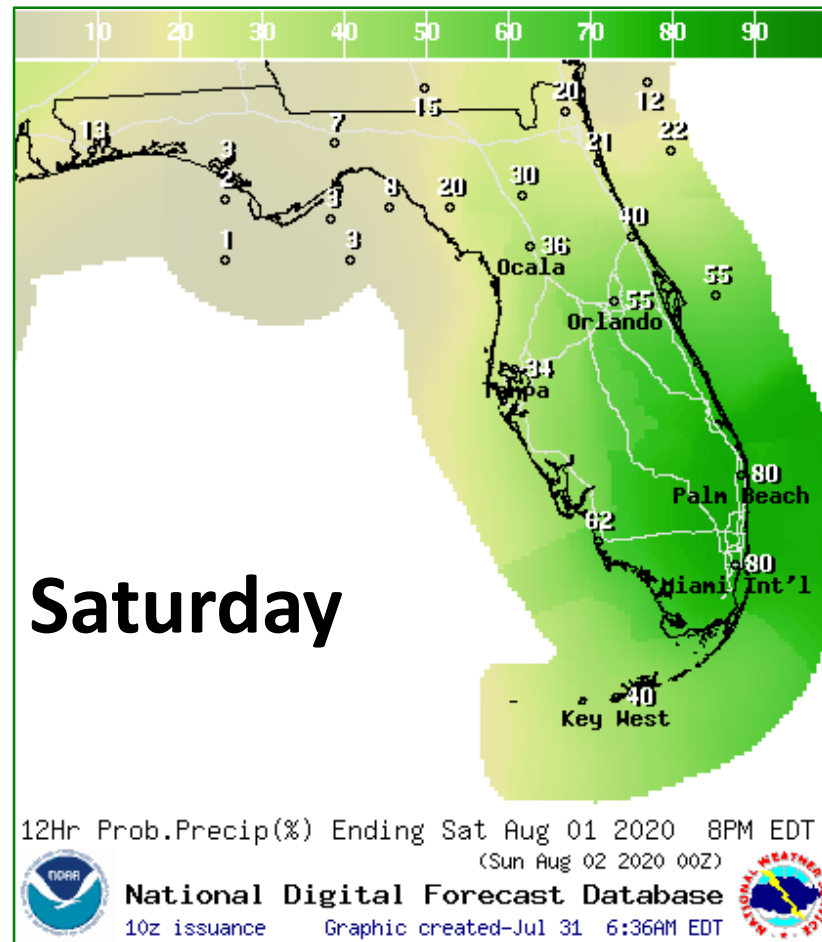
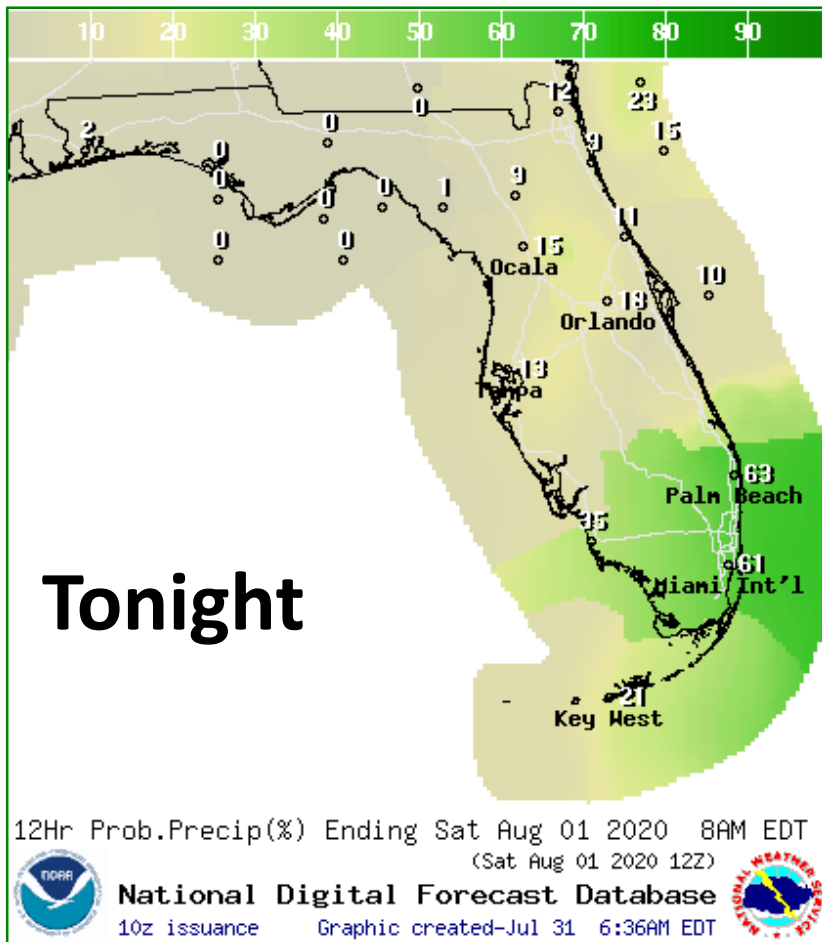
**MDT: 20%-50%**

**MRGL: 5%-10%**

An isolated case of  
flash flooding is  
possible this weekend  
in the urban areas of  
the East Coast.



# Rain Chances Next 3 Days



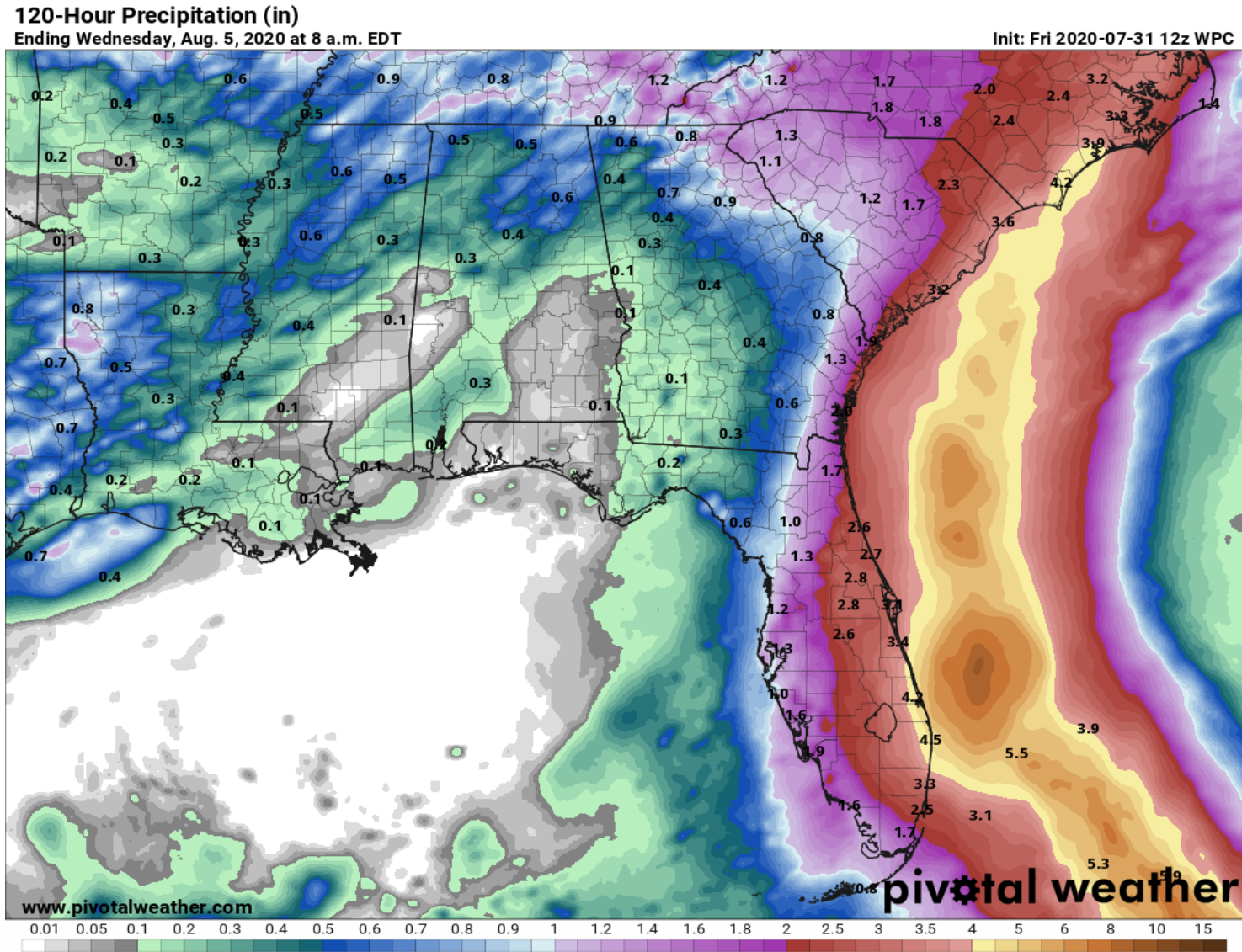
Rain chances in Southeast Florida will begin tonight, then across the Peninsula on Saturday, and into Northeast Florida by Sunday.





# Forecast Rainfall Totals Next 5 Days

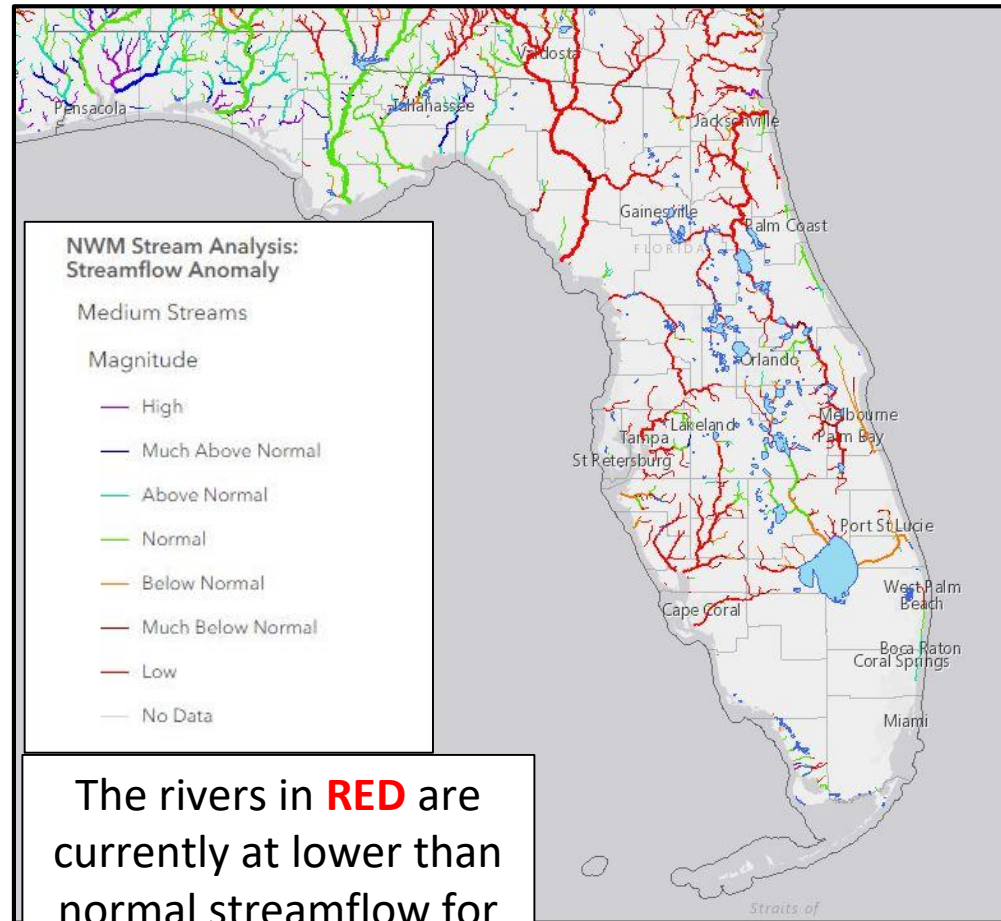
- About 2-4" of rain are possible along the East Coast, 1-2" inland
- Localized totals double these amounts will be possible (6-8").
- Isolated flash flooding possible, especially in the urban areas along the I-95 corridor.
- A western track would lead to higher rainfall totals across the Peninsula
- An eastern track would lower rain totals and keep most of the rain offshore.





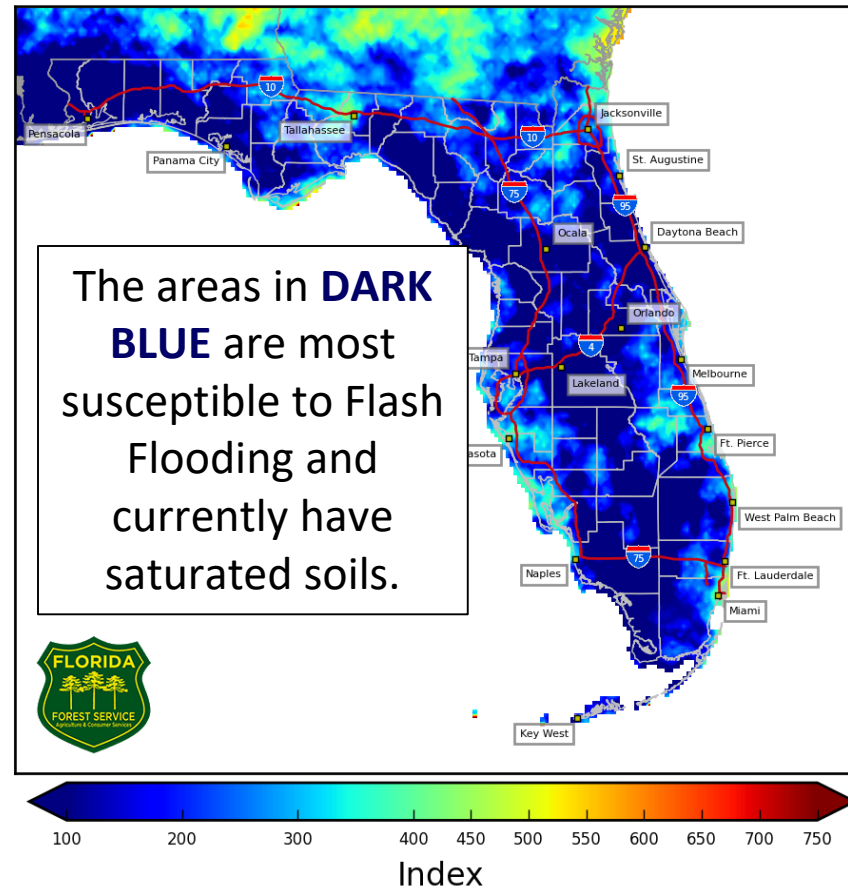
# Streamflow Anomaly – Soil Moisture

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



The rivers in **RED** are currently at lower than normal streamflow for this time of year.

4 km Resolution KBDI  
Statewide  
July 30, 2020



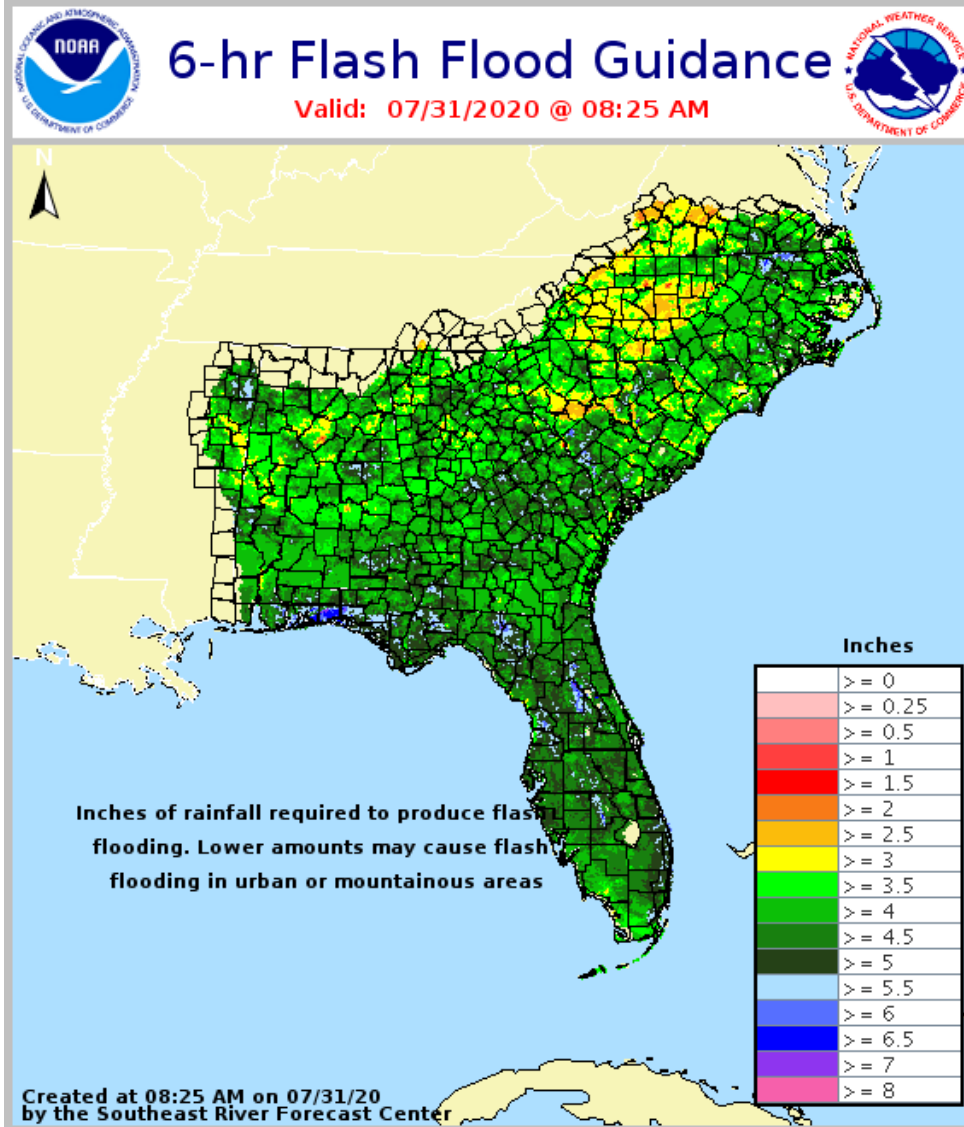
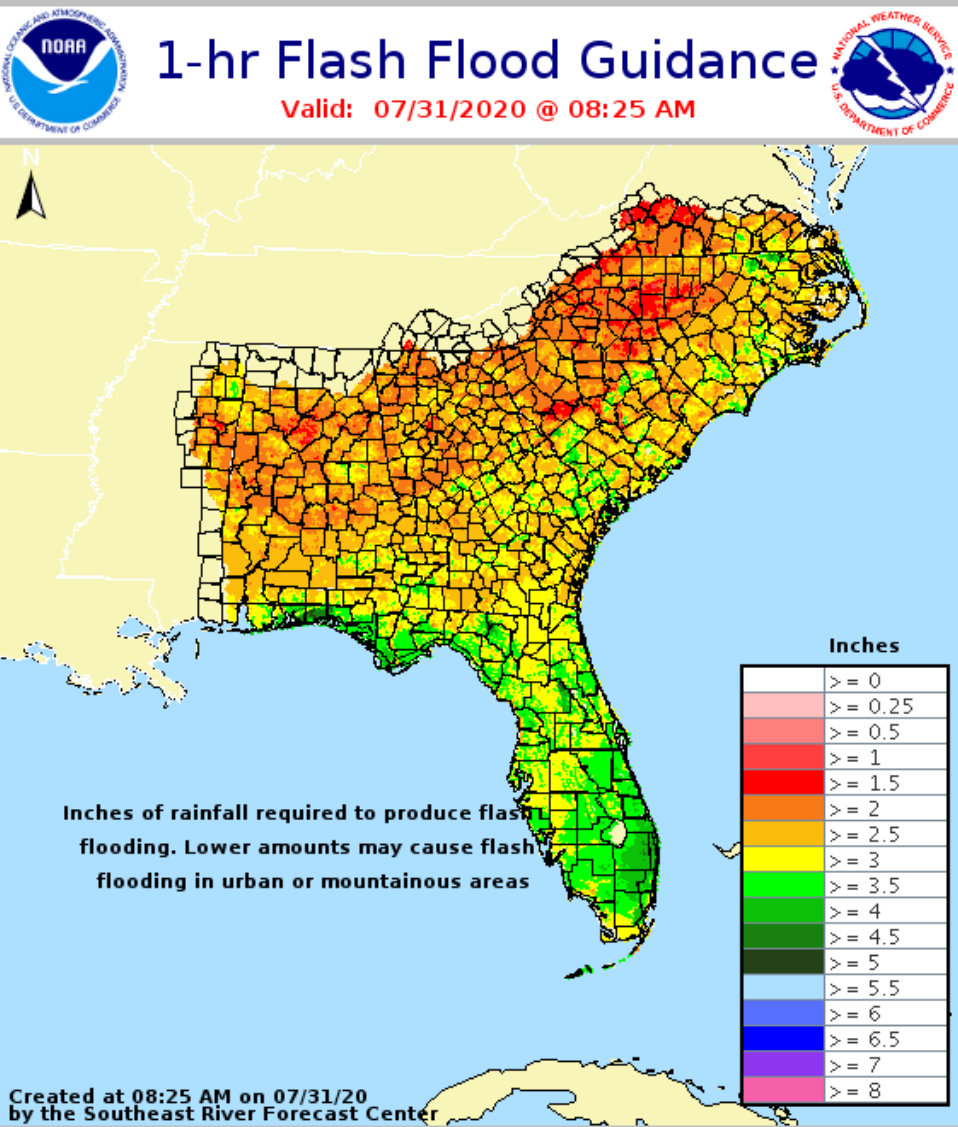
Streamflows are near to below normal across the entire Peninsula, but soils remain quite saturated. If heavier rainfall occurs, then flash flooding will be a concern.

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 few hours 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

Showers and thunderstorms associated with a small area of low pressure located a couple of hundred miles east-southeast of the Cabo Verde Islands have become less organized since yesterday.

The system is moving northward toward less favorable environmental conditions, and the chance of this system becoming a tropical depression is decreasing.

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

**\*Formation chance through 48 hrs...low...20%**

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

8:00 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%

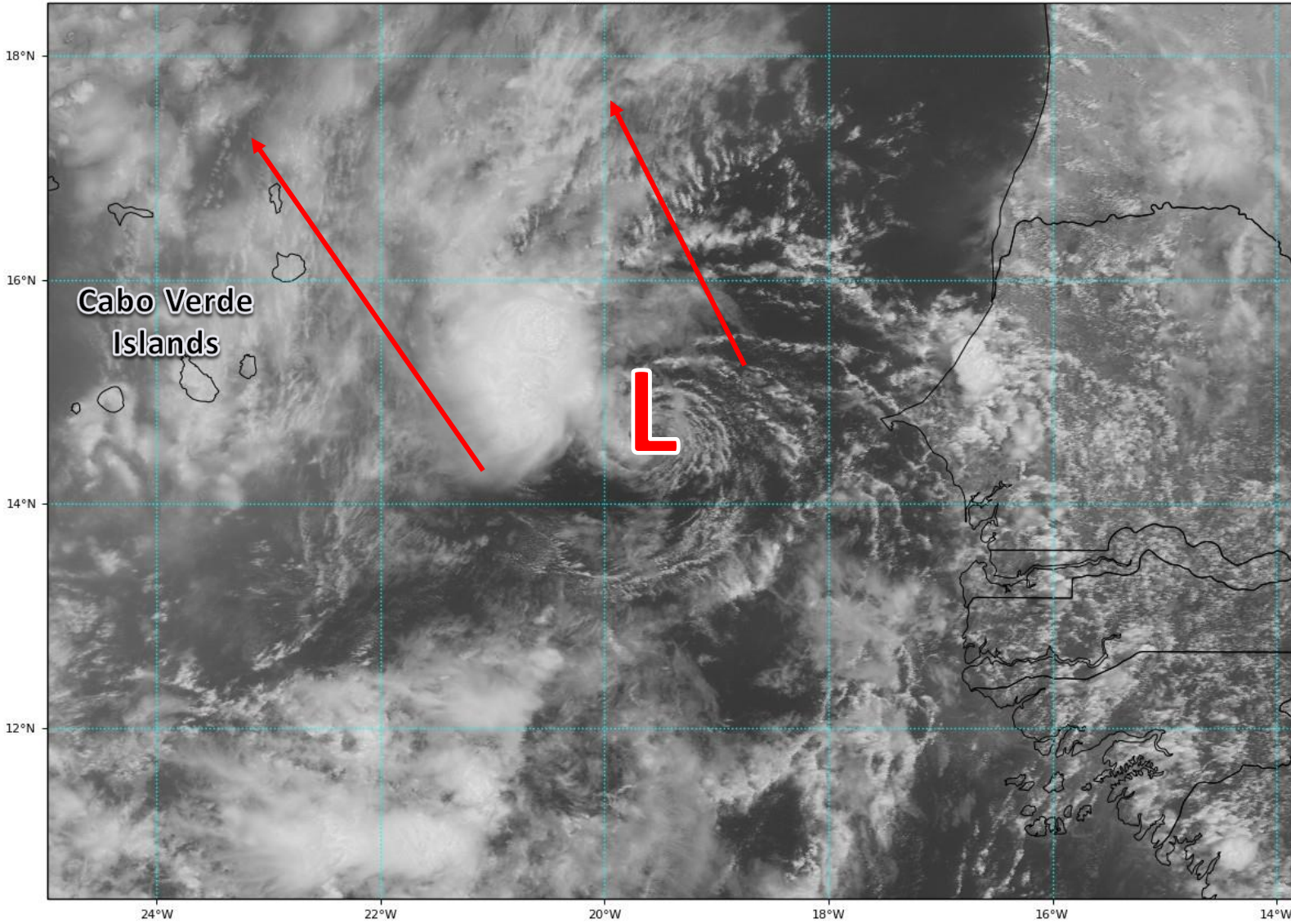


# Satellite Imagery

## Eastern Atlantic – Invest 93L (20%)

GOES-16 Channel 2 (visible) Reflectance at 14:15Z Jul 31, 2020

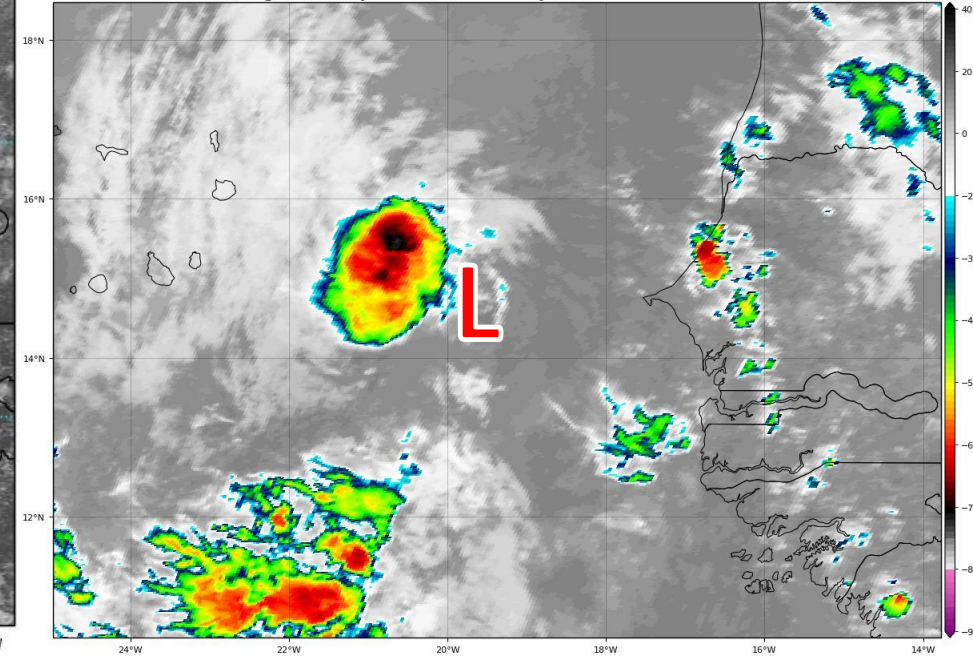
TROPICALTIDBITS.COM



Invest 93L is small with a well-defined area of low pressure. However, thunderstorms are minimal and displaced from the center. It will soon be moving over colder waters and additional weakening is expected.

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 14:15Z Jul 31, 2020

TROPICALTIDBITS.COM





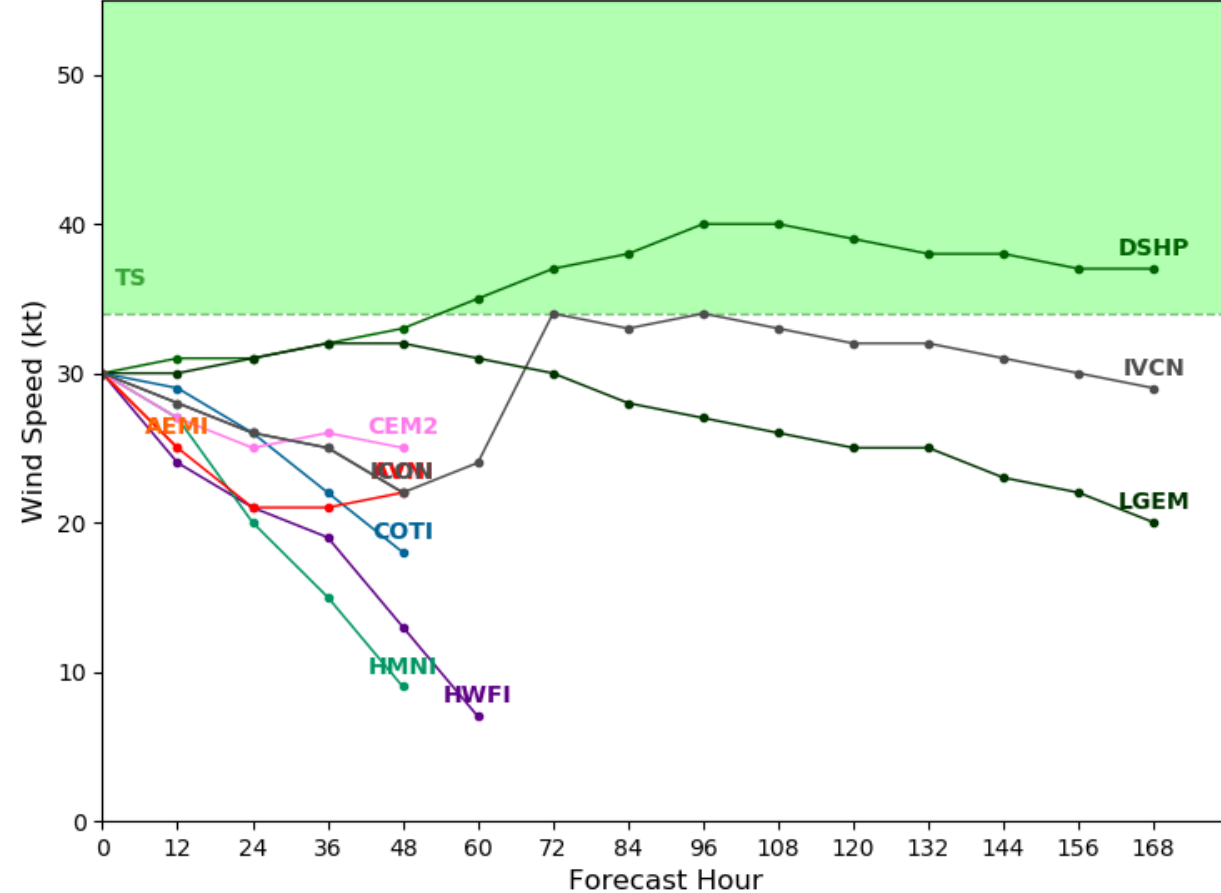
# Model Forecast Tracks

## Dynamical and Statistical Models

### Invest 93L Model Intensity Guidance

Initialized at 12z Jul 31 2020

Levi Cowan - tropicaltidbits.com

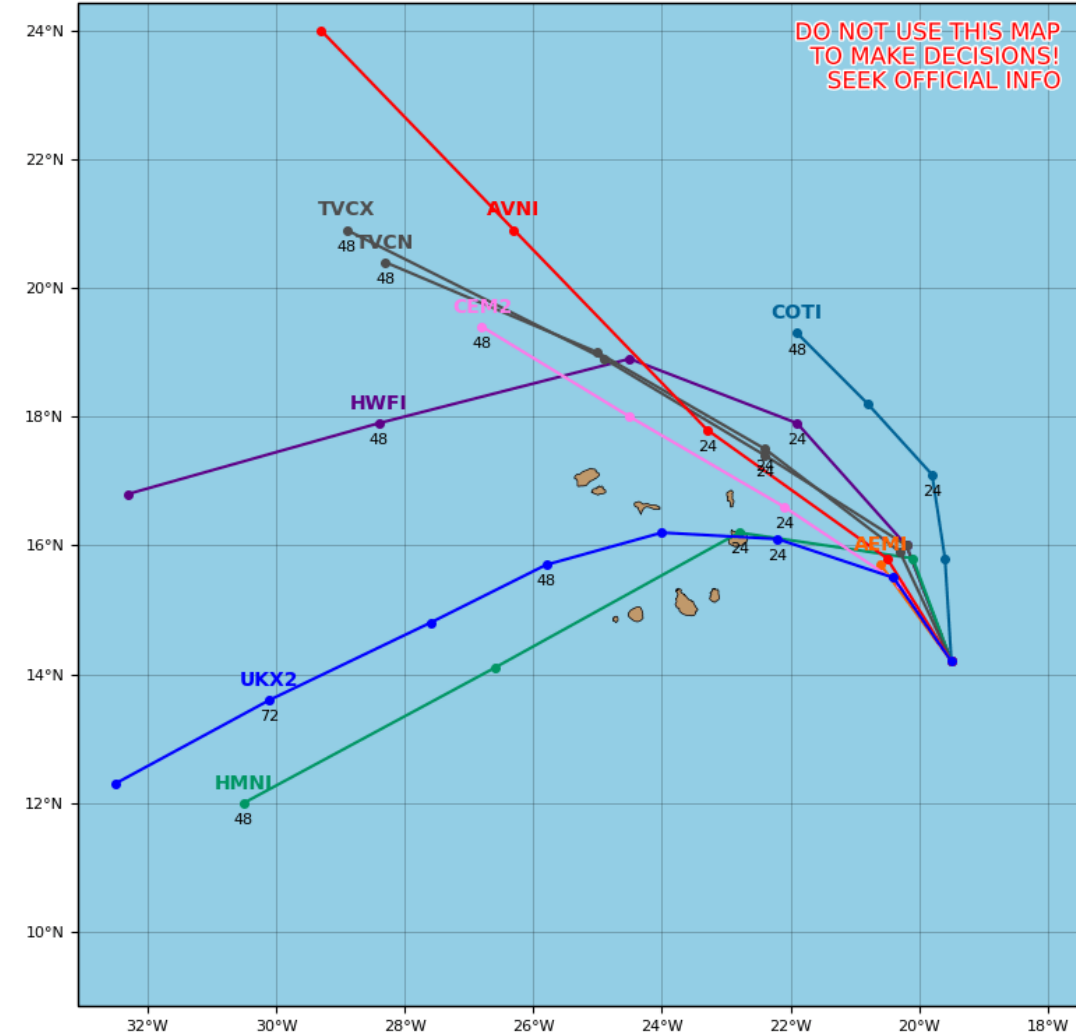


Invest 93L will hook around the Cabo Verde Islands before dissipating in about 36-48 hours.

### Invest 93L Model Track Guidance

Initialized at 12z Jul 31 2020

Levi Cowan - tropicaltidbits.com







# 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%)

8:00 am EDT  
Fri Jul 31 2020

100W 90W 80W 70W 60W 50W 40W 30W 20W

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

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 by early next week.

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

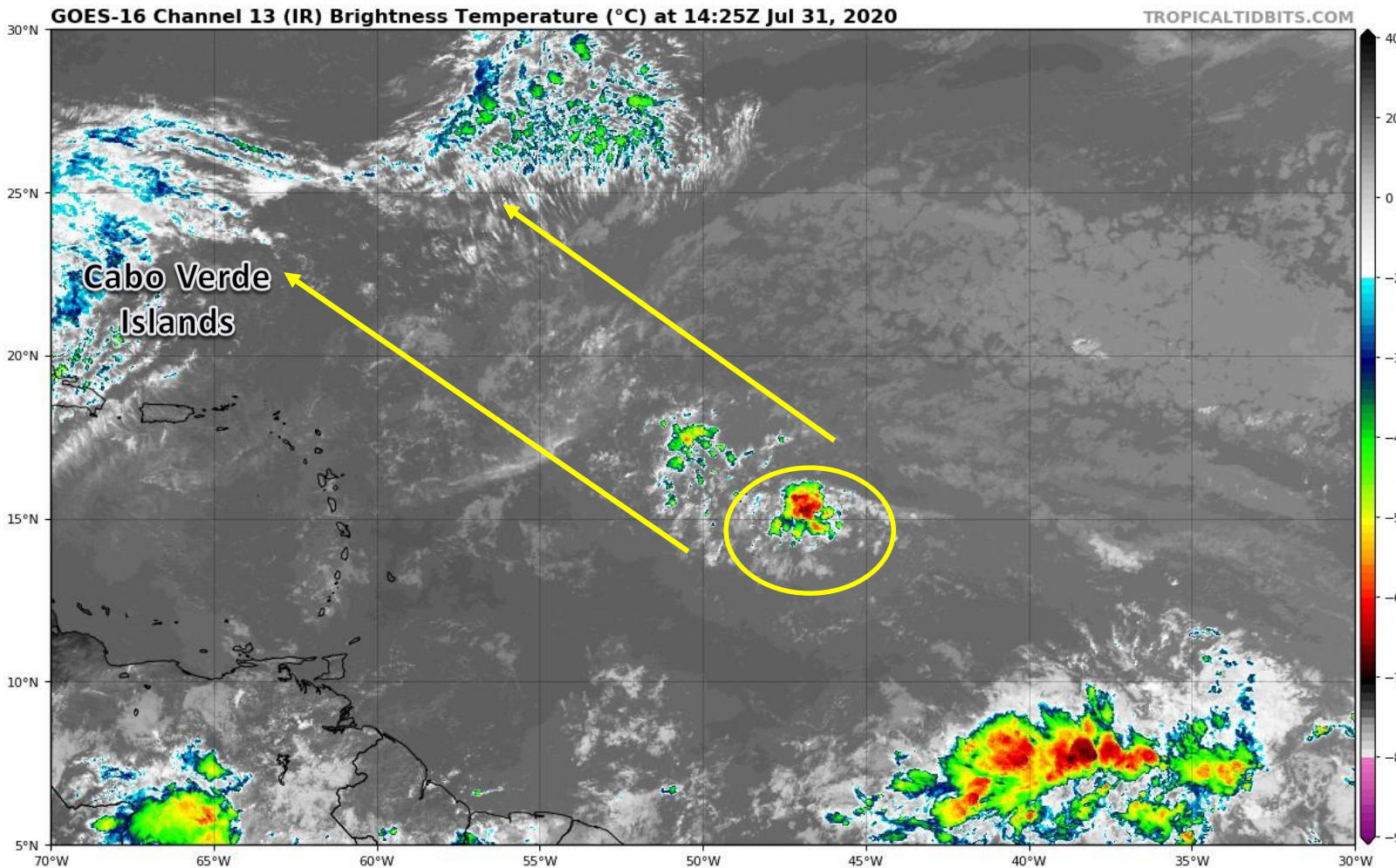
\*Formation chance through 48 hrs...low...near 0%

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

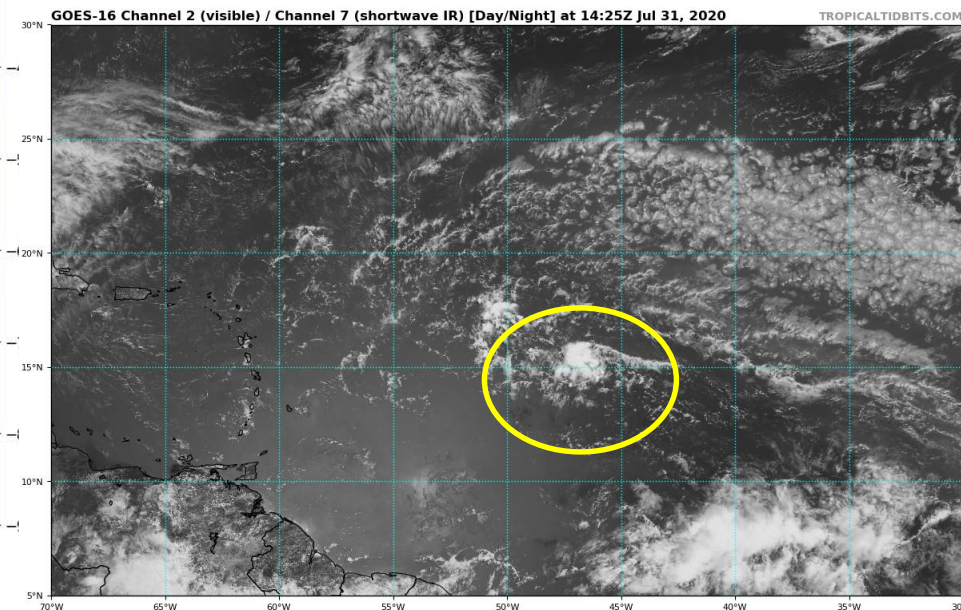


# Satellite Imagery

## Central Atlantic – Tropical Wave (20%)



A small tropical wave is located about 1000 miles east of the Caribbean. It is moving to the northwest and will take time to organize. Dry air will be the main limiting factor for development.



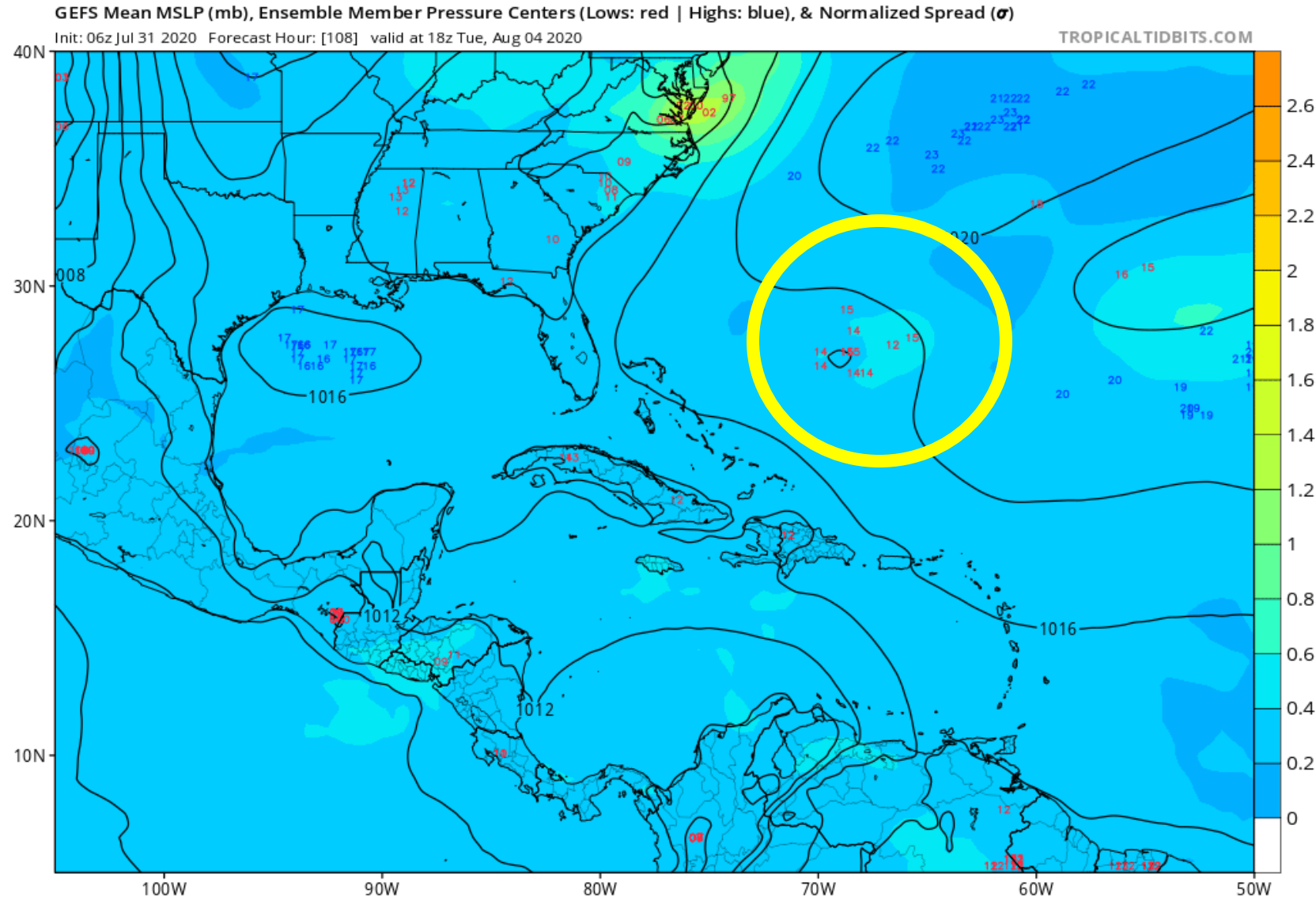




# Model Forecast Tracks

## Ensembles Models

The next tropical wave will follow behind Isaias for a bit, and be located between Bermuda and Florida during the middle of next week.







# Overall Summary

## **Hurricane Isaias**

- Isaias continues to organize, with the center located about 450 miles southeast of Miami, FL, moving northwest at 16 mph.
- Maximum sustained winds are near 75 mph (Category 1 Hurricane). Strengthening is forecast as Isaias approached Florida.
- Hurricane winds extend out up to 35 miles from the center, and tropical storm force winds up to 205 miles.
- Thereafter, some weakening may occur as the system turns north up the Florida East Coast.
- A north to northeast motion is expected early next week with the system paralleling the East Coast of the United States as it continues to weaken.

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

- A tropical wave near the Cabo Verde Islands near the coast of Africa is weakening. Environmental conditions are becoming unfavorable for development.
- This system has a 20% (low) chance of forming into a tropical depression over the next 48 hours.
- 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.**
- **Hurricane Watch:** Brevard, Indian River, St. Lucie, Martin, and coastal Palm Beach
- **Tropical Storm Warning:** Indian River, St. Lucie, Martin, coastal Palm Beach, coastal Broward, coastal Miami-Dade
- **Tropical Storm Watch:** inland Palm Beach, inland Broward, metro Miami-Dade
- Wind gusts from 40-65 mph are generally forecast in the warnings area, with gusts to 75 mph possible.
- Heavy rainfall of 3-4" 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 Northeast Florida. Only 1-2' is currently forecast in Southeast Florida.
- Elevated surf, dangerous rip currents, and beach erosion will be likely at all Atlantic beaches this weekend.

The next briefing packet will be issued late this afternoon with the 5 PM 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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