



TROPICAL UPDATE



8:30 AM EDT

Thursday, June 2, 2022

Invest 91L – Southern Gulf of Mexico Low (80%)

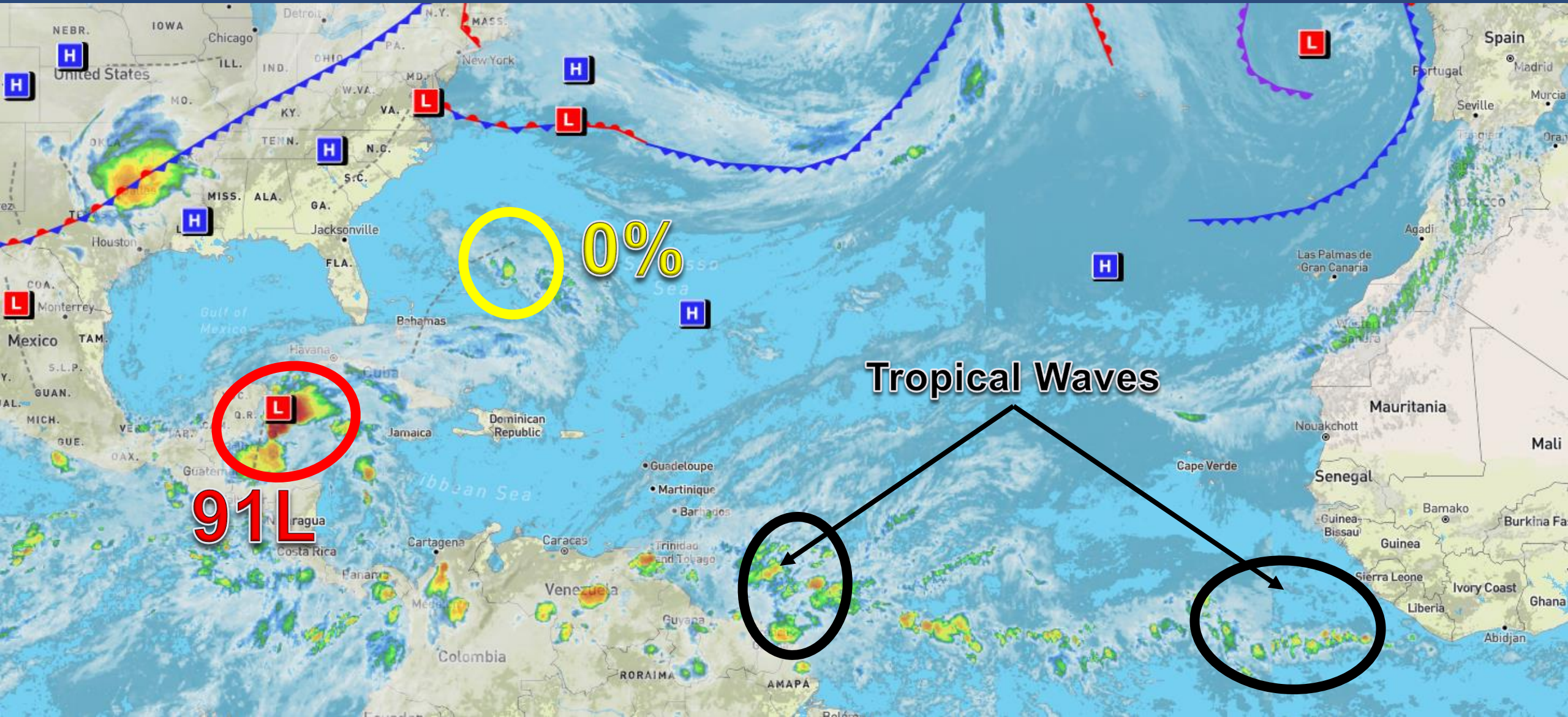
Heavy Rain Likely Late This Week – South Florida

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



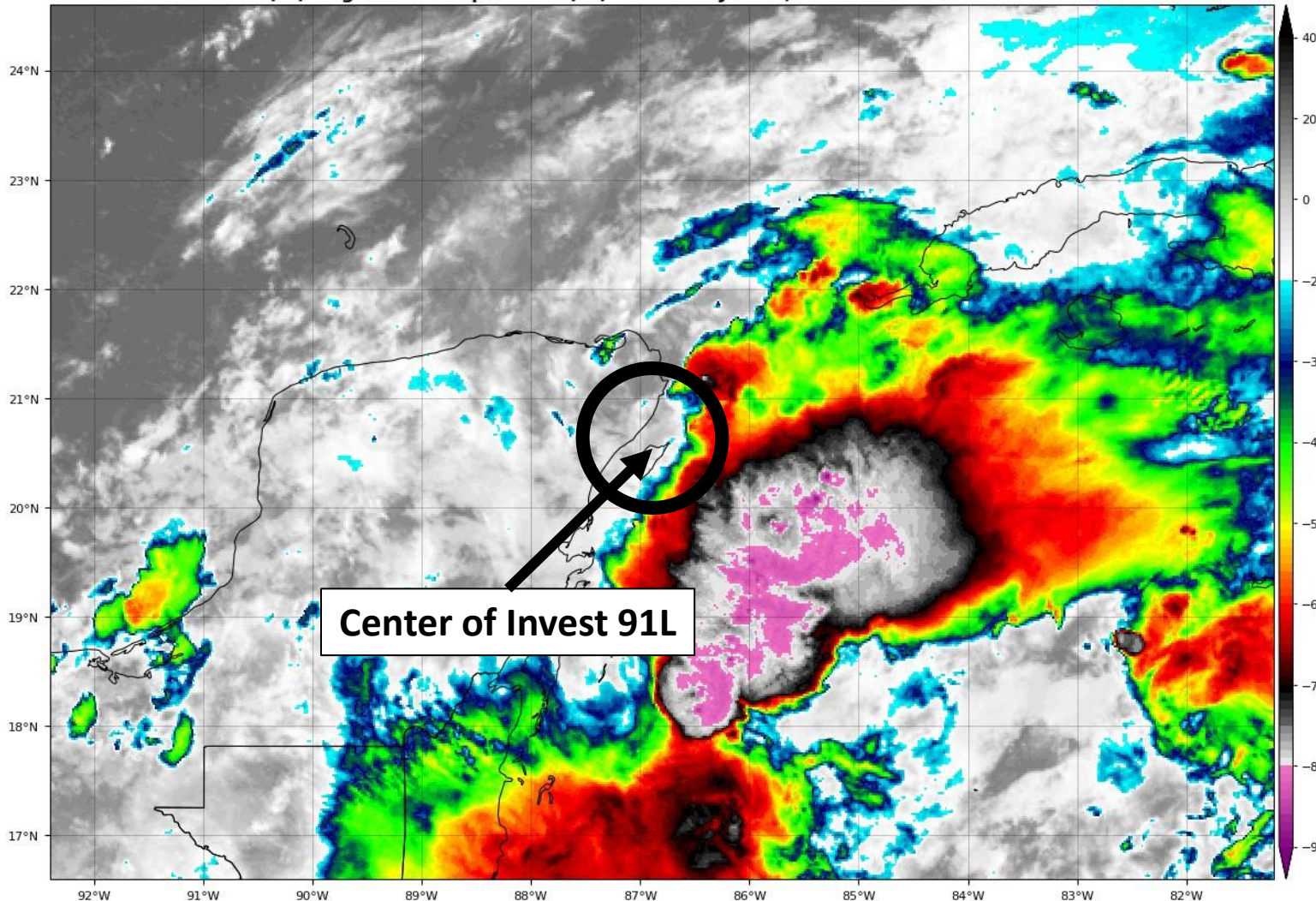


Satellite Imagery

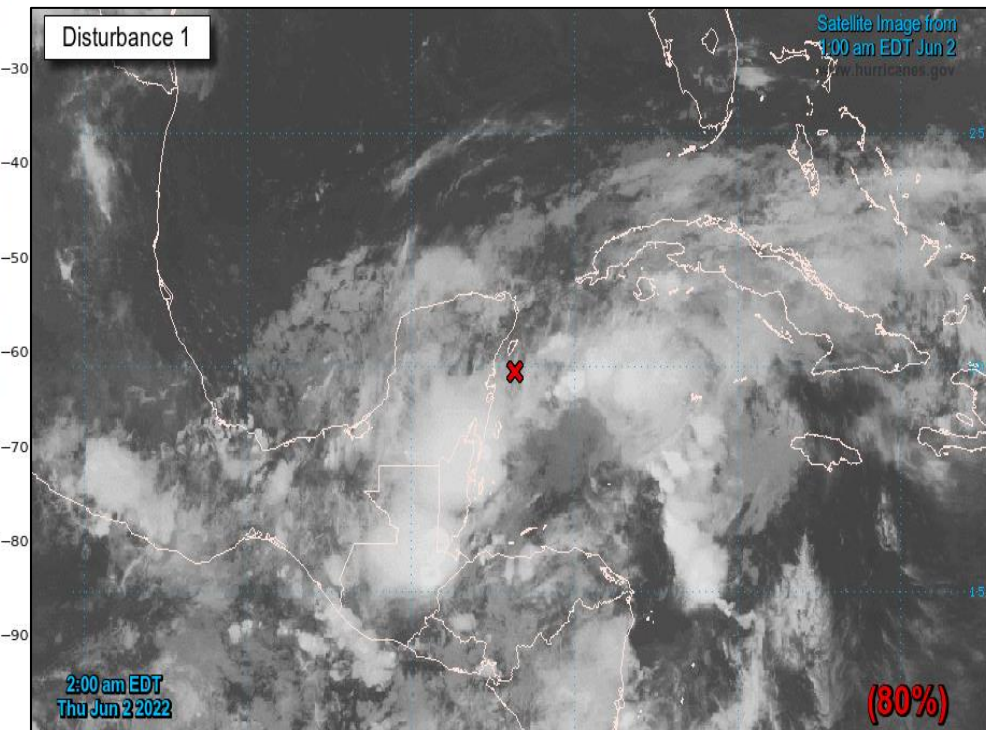
Invest 91L

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 11:07Z Jun 02, 2022

TROPICALTIDBITS.COM



Invest 91L is currently broad and disorganized with all thunderstorm activity (reds, whites, and pinks) on the eastern side. It will gradually organize over the next day or two, but most of the rain and storms are likely to remain on the eastern half of the system.

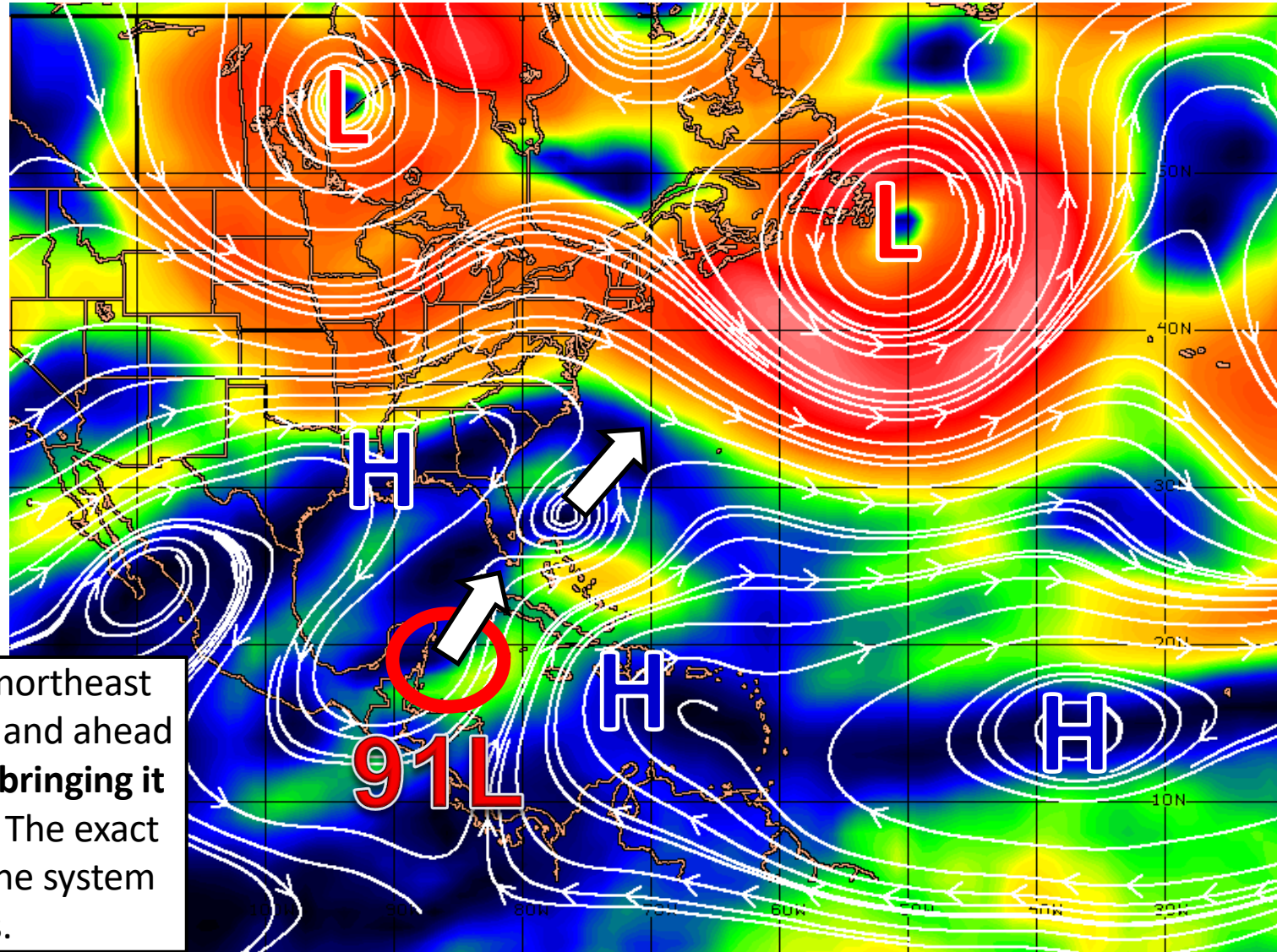




Steering Currents

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.



Fast Moving Storm

Fast Moving Storm

Typical Moving Storm

Slow Moving Storm

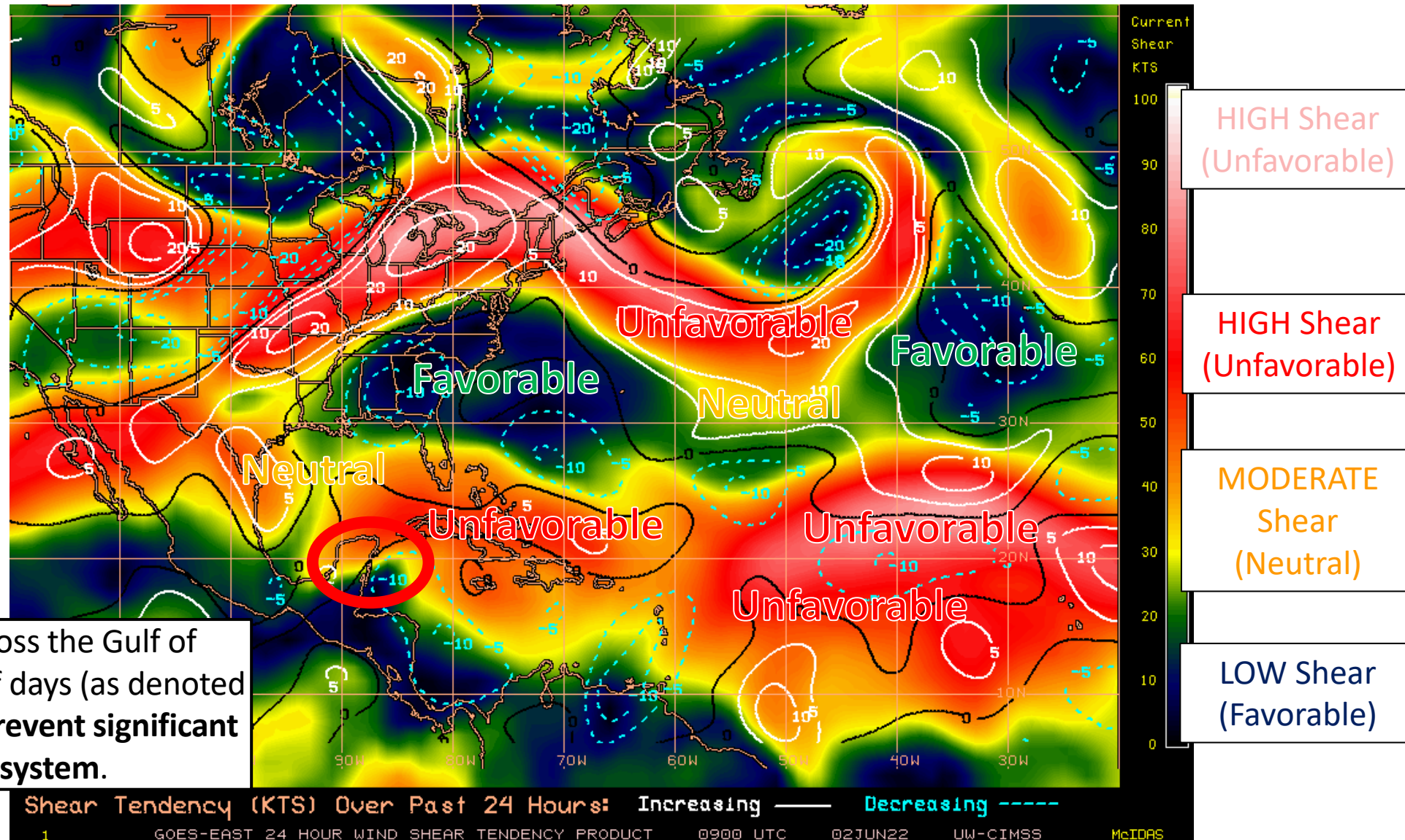
The system will move to the northeast around areas of high pressure and ahead of an approaching cold front, **bringing it near or across South Florida**. The exact track will depend on where the system specifically develops.



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).



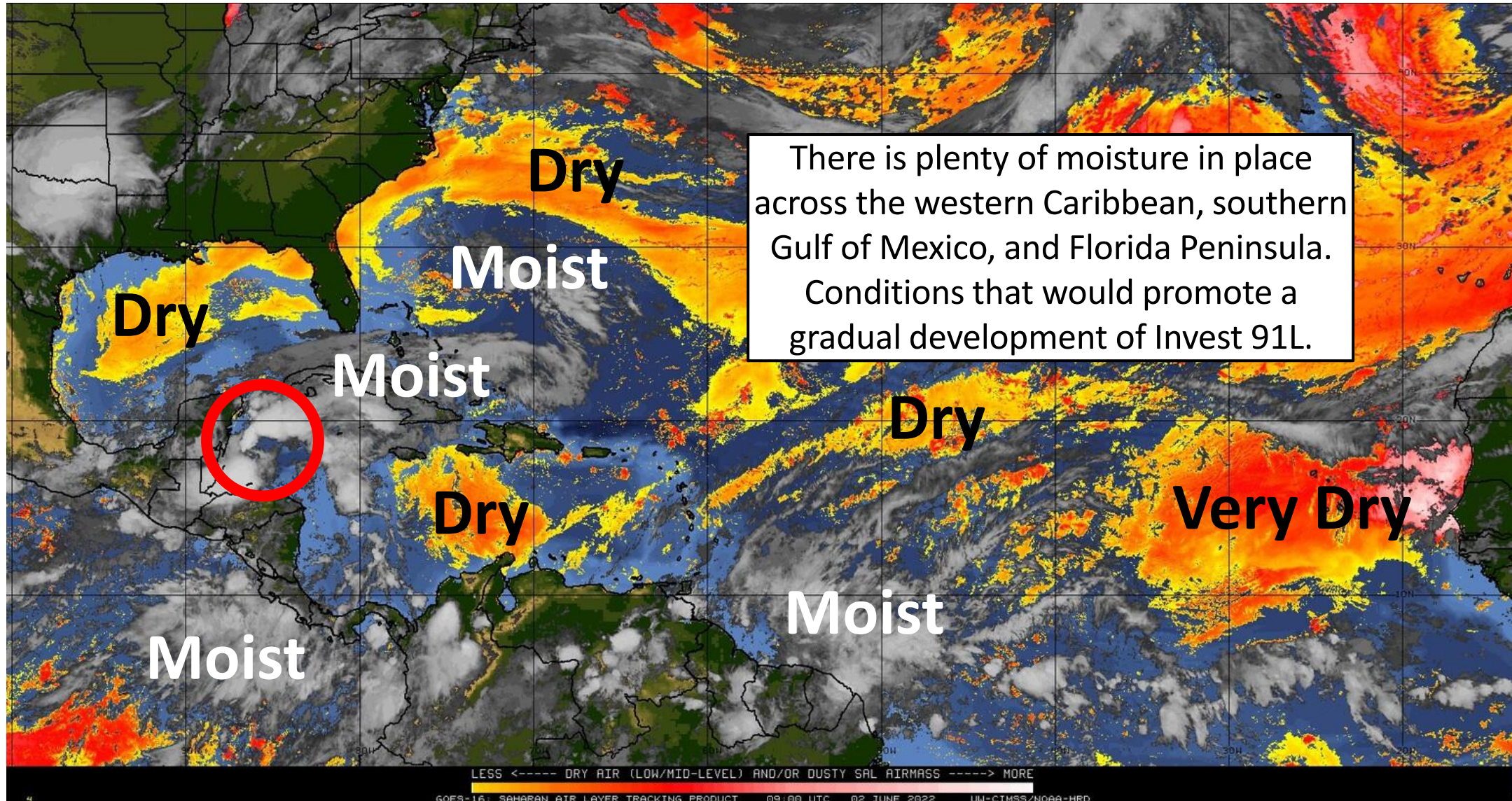
Wind shear will be high across the Gulf of Mexico over the next couple of days (as denoted by the red colors) which will **prevent significant development of this system.**



Dry Air & Saharan Dust

Is the environment favorable for the system?

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





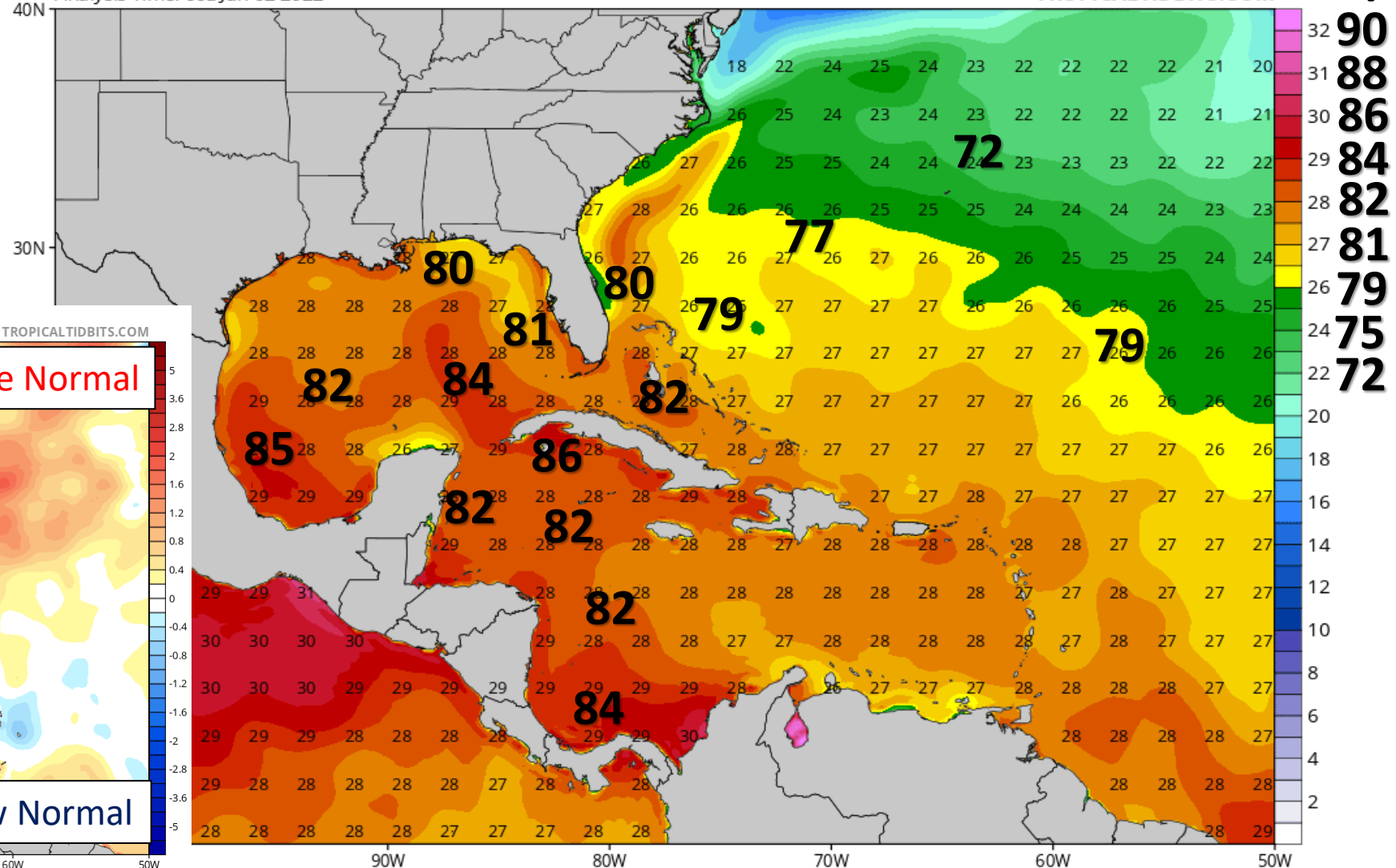
Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

In addition, water temperatures are warm enough to support tropical development across the Gulf of Mexico, Caribbean, and western Atlantic. Water temperatures are running a few degrees above normal for this time of year.

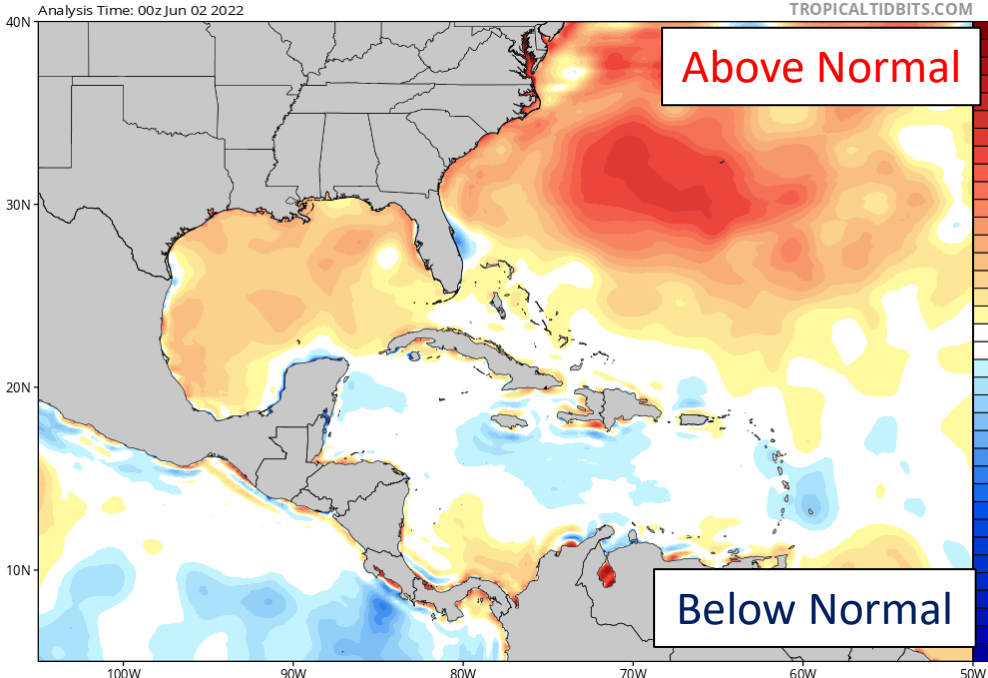
CDAS Sea Surface Temperature (°C)

Analysis Time: 00z Jun 02 2022



CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)

Analysis Time: 00z Jun 02 2022

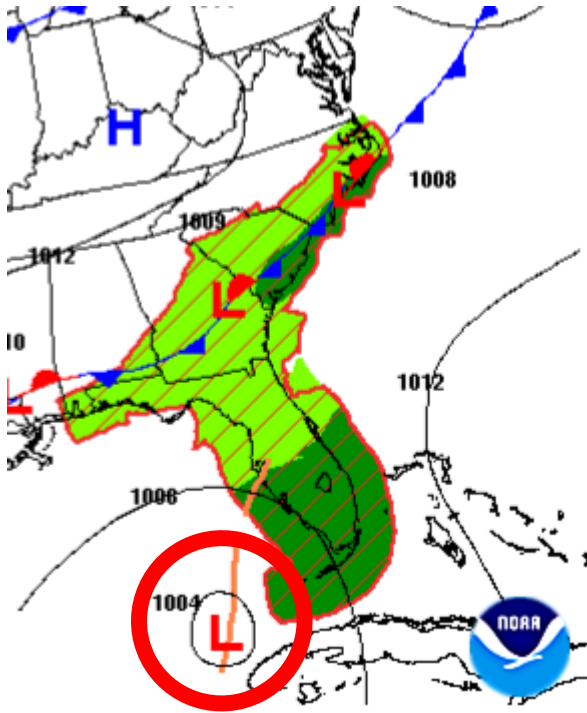




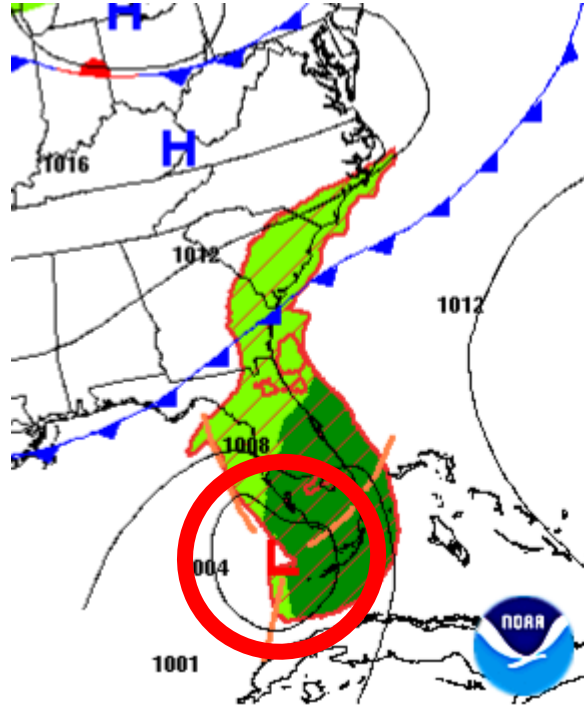
Forecast Weather Maps - Track

Through the Upcoming Weekend

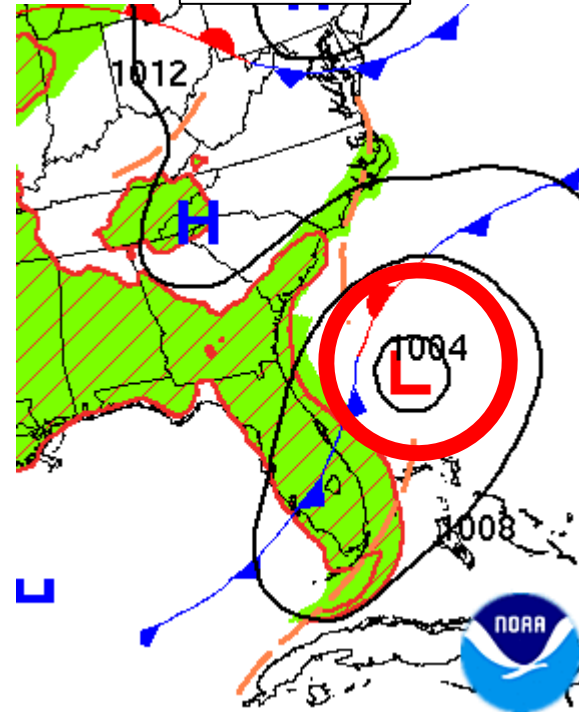
Friday



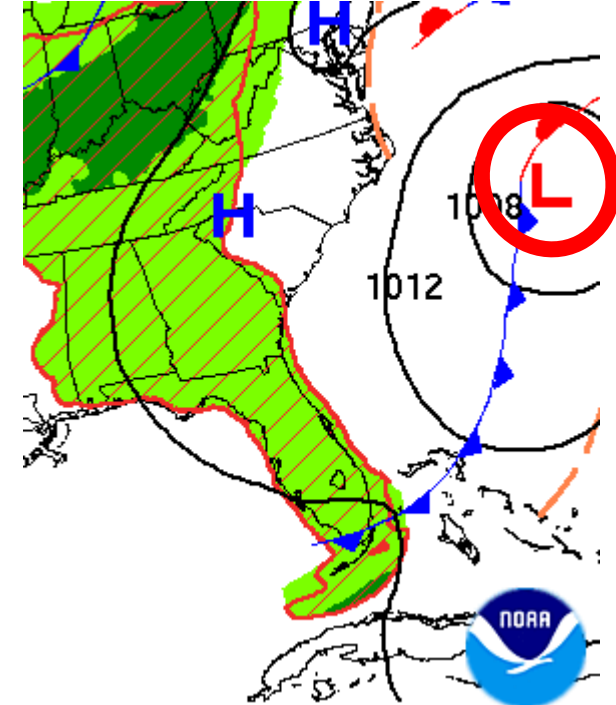
Saturday



Sunday



Monday



The heavy rain threat begins early Friday morning and continues into the day on Saturday. The low will make the closest approach to Florida on Saturday before moving offshore and away from Florida on Sunday.



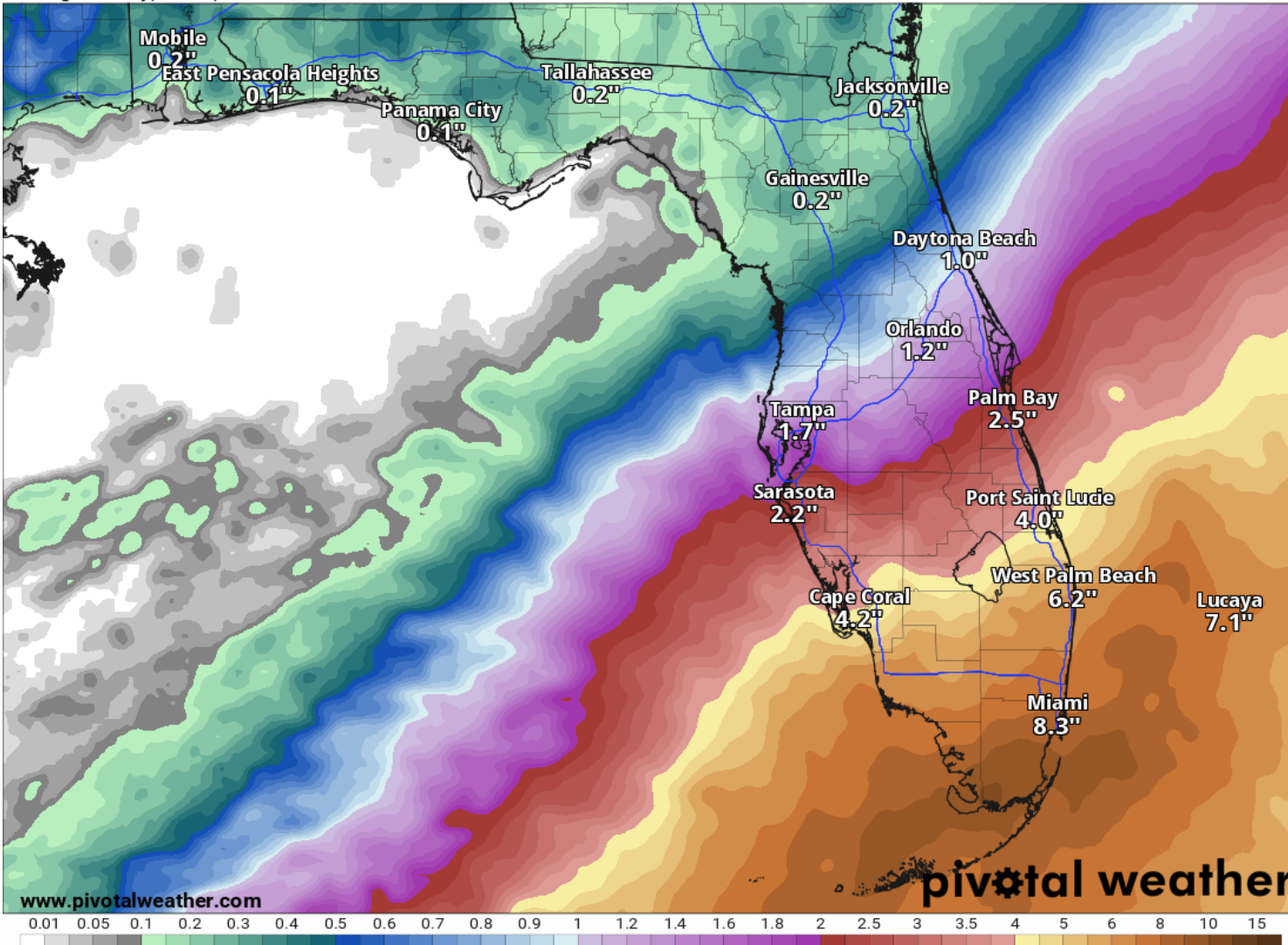
Rainfall Totals Next 5 Days

Ending 8 AM ET Tuesday

120-Hour Precipitation (in)

Ending Tuesday, Jun. 7, 2022 at 8 a.m. EDT

Init: Thu 2022-06-02 12z WPC

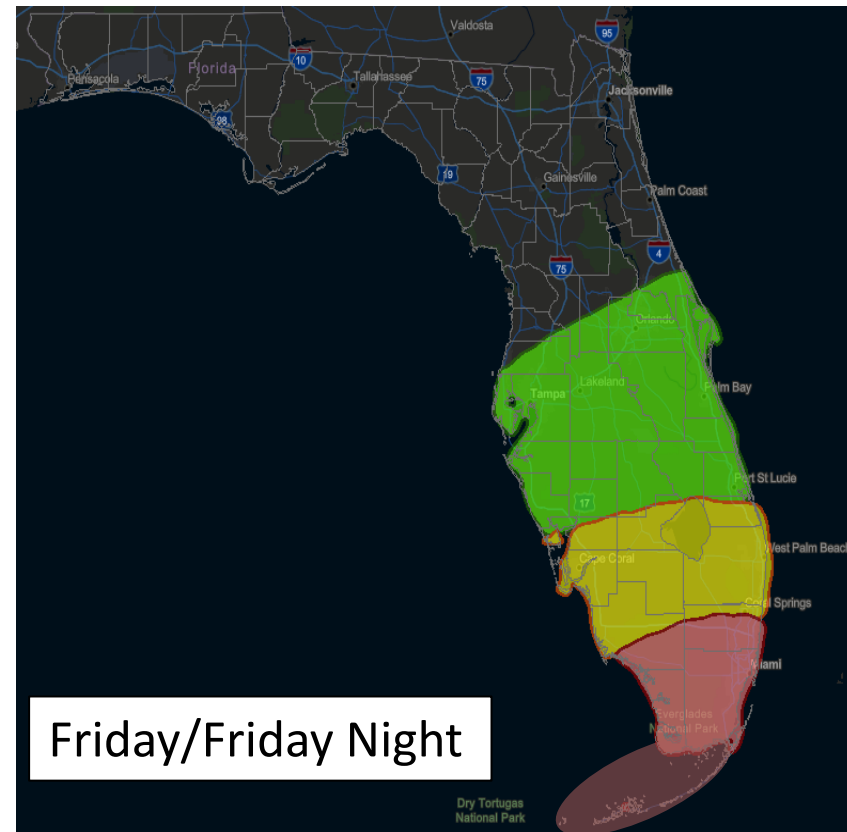


- **Through tonight**, a widespread 1-2\" of rain is forecast across South Florida and along the West Coast, with more isolated totals in North Florida.
- Localized areas could see 3-4\" today, *but the flood threat will be localized and confined to urban areas.*
- Heavier rainfall is expected in South Florida Friday and Saturday depending on the exact track of Invest 91L.
- **A widespread 4-8\" is currently being forecast for this weekend**, with localized areas of 12+\".
- *These rainfall totals could increase or decrease depending on the exact track!!*

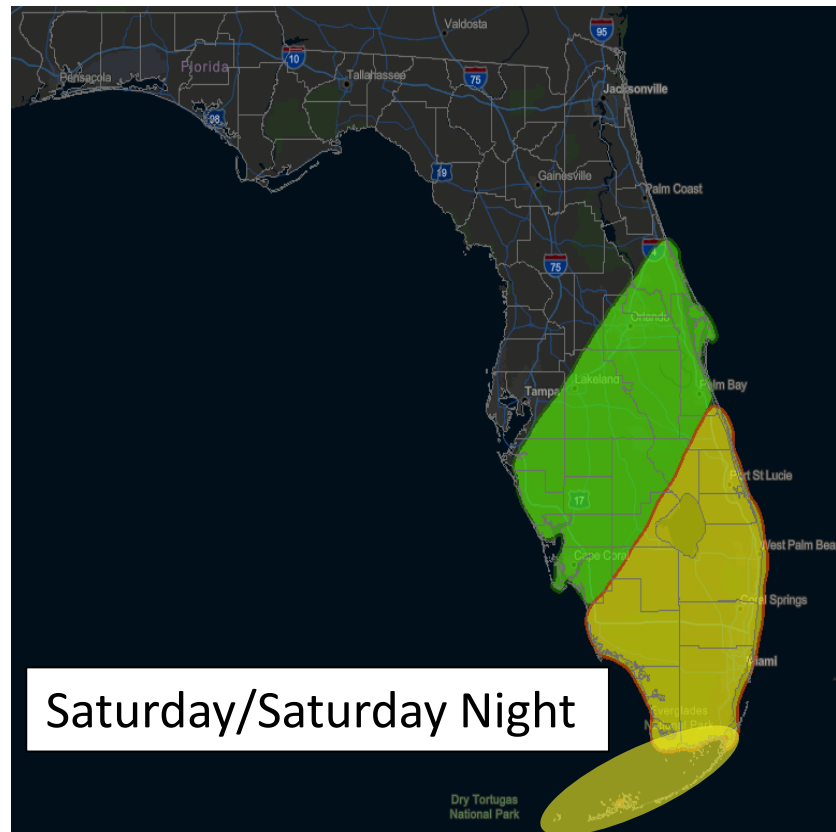


Flash Flood Outlooks Fri./Sat.







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



Friday/Friday Night



Saturday/Saturday Night

| 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. | |
| www.wpc.ncep.noaa.gov @NWSWPC | | | | |
| 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

HIGH: At Least 70% **SLGT: At Least 15%**

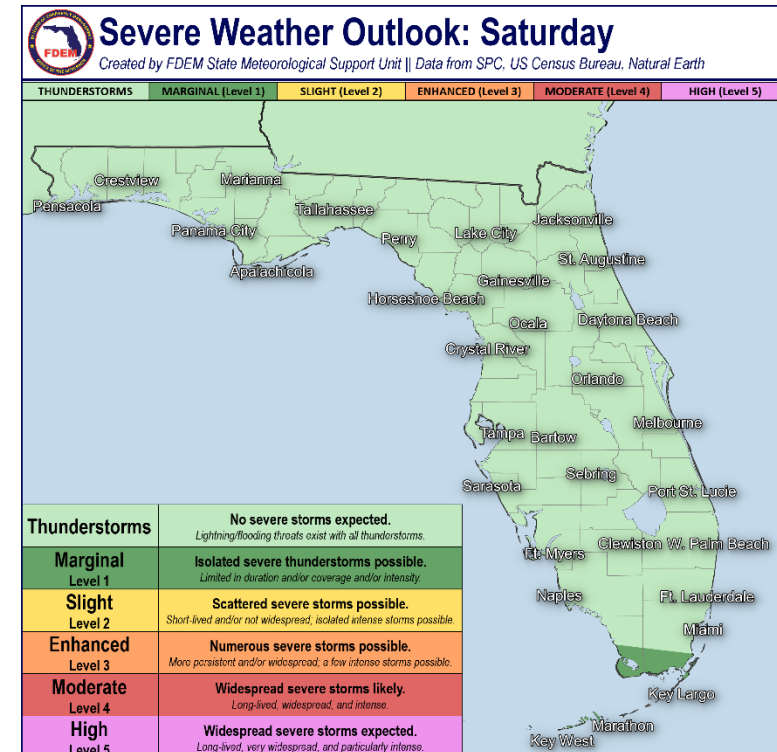
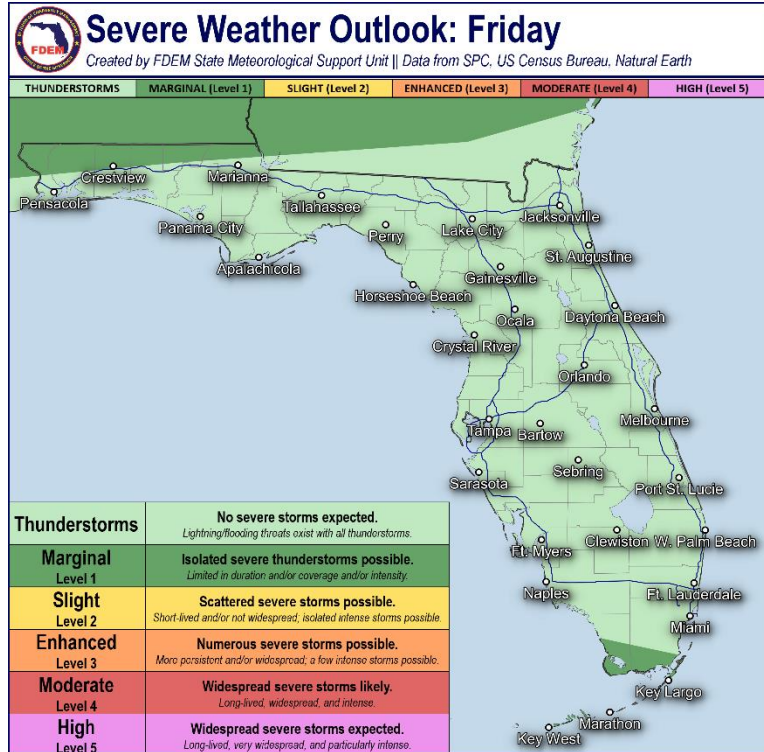
MDT: At Least 40% **MRGL: At Least 5%**

Heavy rainfall late in the week and weekend could result in flash flooding on Friday and Saturday across South Florida and the Florida Keys. Urban areas in Southeast Florida will be most at risk of impactful street flooding. **Flood Watches will likely be issued later today for portions of the southern Peninsula.**



Severe Weather Outlooks

From the Storm Prediction Center



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 |

As Invest 91L approaches the southern Peninsula Friday, isolated tornadoes cannot be ruled out along the Florida Keys Friday night, and over South Florida Saturday. A **Marginal Risk (level 1 of 5)** has been introduced.



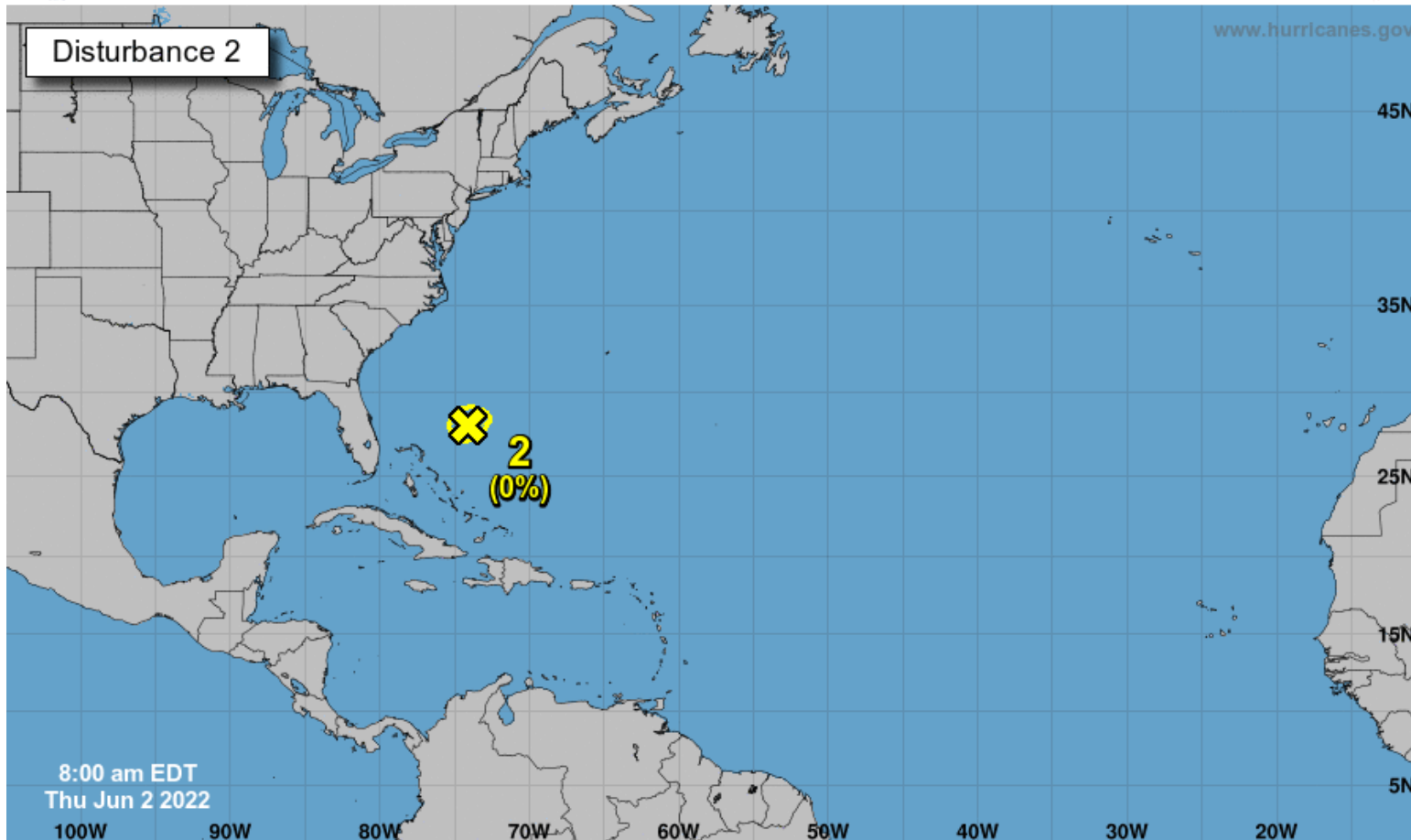
Tropical Weather Outlook

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



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Shower activity associated with a weak surface trough located about 200 miles east-northeast of the northwestern Bahamas has diminished, and upper-level winds remain strong in the area.

Development of this system is not expected while it moves northeastward at 5 to 10 mph over the southwestern Atlantic during the next couple of days.

This system poses no threat to Florida.

***Formation chance through 48 hours...low...0%**

***Formation chance through 5 days...low...0%**

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



Overall Summary

Invest 91L - Southern Gulf of Mexico Low

- Invest 91L continues to develop near the Yucatan Peninsula and will move northeast toward South Florida this weekend.
- The environment over the Gulf of Mexico is favorable for gradual development, and the system is likely to become a tropical depression or storm while it moves over the southeastward over the next day or two. Heavy rain will be the main threat.
- The system will move east of Florida on Sunday and into the open waters of the Atlantic by Monday.
- The National Hurricane Center has an **80% (high) chance** of development in the next 48 hours, and an **80% (high) chance** of development over the next 5 days.
- **Tropical Storm Watches/Warnings could be required for the Florida Keys and southwestern Florida Peninsula later today.**
- If it becomes a Tropical Depression, it will be designated number “One” and if it strengthens into a Tropical Storm it will be “Alex”.

Bahama Low

- A weak area of showers is located about 200 miles east-northeast of the Bahamas has diminished.
- Development of this system is not expected while it moves northeastward at 5 to 10 mph over the southwestern Atlantic during the next couple of days.
- The National Hurricane Center has a **0% (low) chance** of development in the next 48 hours and 5 days.
- This system poses no threat to Florida.

Florida Outlook:

- Impacts to Florida are not expected through this afternoon.
- While it is too early to determine the specifics of any impacts, if they do occur, heavy rainfall is likely to be the main threat, with gusty winds, rip currents, and waterspouts/tornadoes possible as additional threats.
- A widespread 4-8” of rain is forecast for South Florida and the Florida Keys Friday and Saturday with locally higher amounts. Flash flooding is possible, and a Flood Watch will likely be issued for the area later today.

The next briefing packet will be provided this afternoon. 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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