



Tropical Update



8:30 AM EDT

Thursday, June 1, 2023

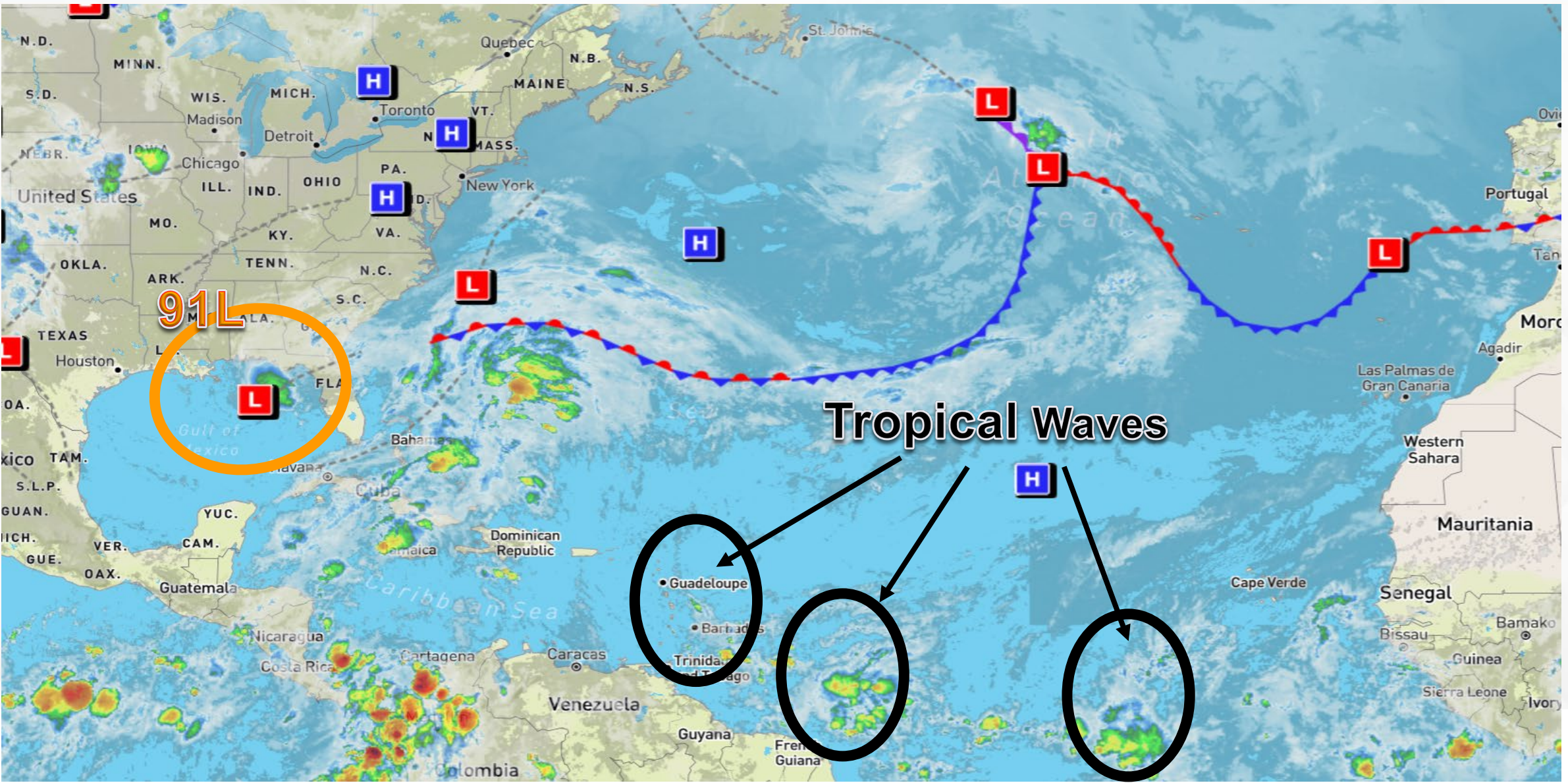
Invest 91L (50%)

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

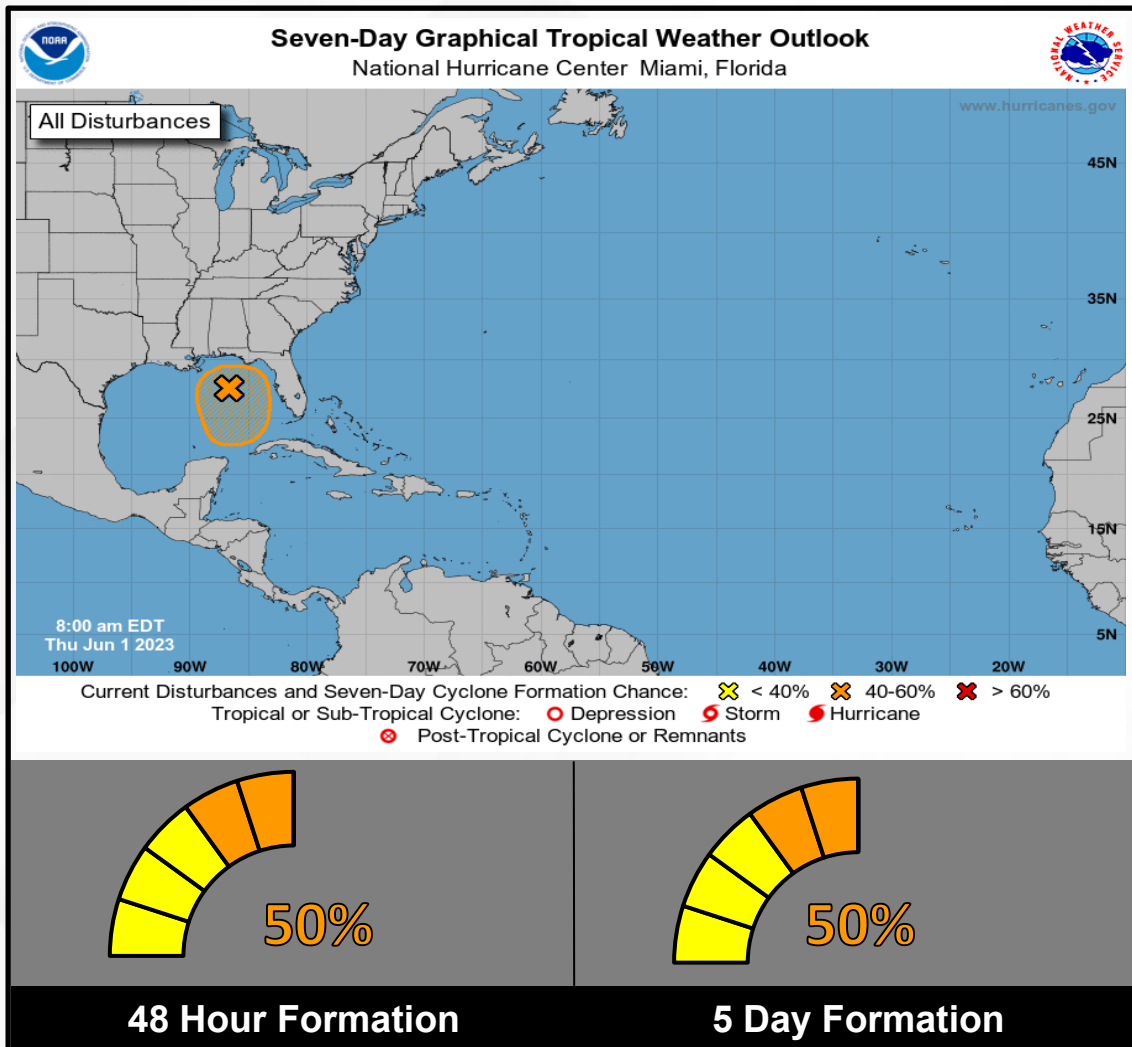
Chance of development: None Low Medium High





Tropical Weather Outlook

Disturbance 1 – Invest 91L ([LINK](#))



Showers and thunderstorms associated with an area of low pressure over the northeastern Gulf of Mexico have increased and become better organized during the overnight hours. Environmental conditions appear marginally favorable for additional development over the next day or so, and a short-lived tropical depression or storm could form over that time span as the system meanders over the northeastern Gulf of Mexico.

However, by this weekend environmental conditions are forecast to become unfavorable for additional development as the system drifts southward, likely remaining offshore over the Gulf of Mexico. An Air Force Reserve Hurricane Hunter aircraft is scheduled to investigate the system later today, if necessary.

Regardless of development, locally heavy rainfall could occur over portions of the Florida Peninsula through this weekend.

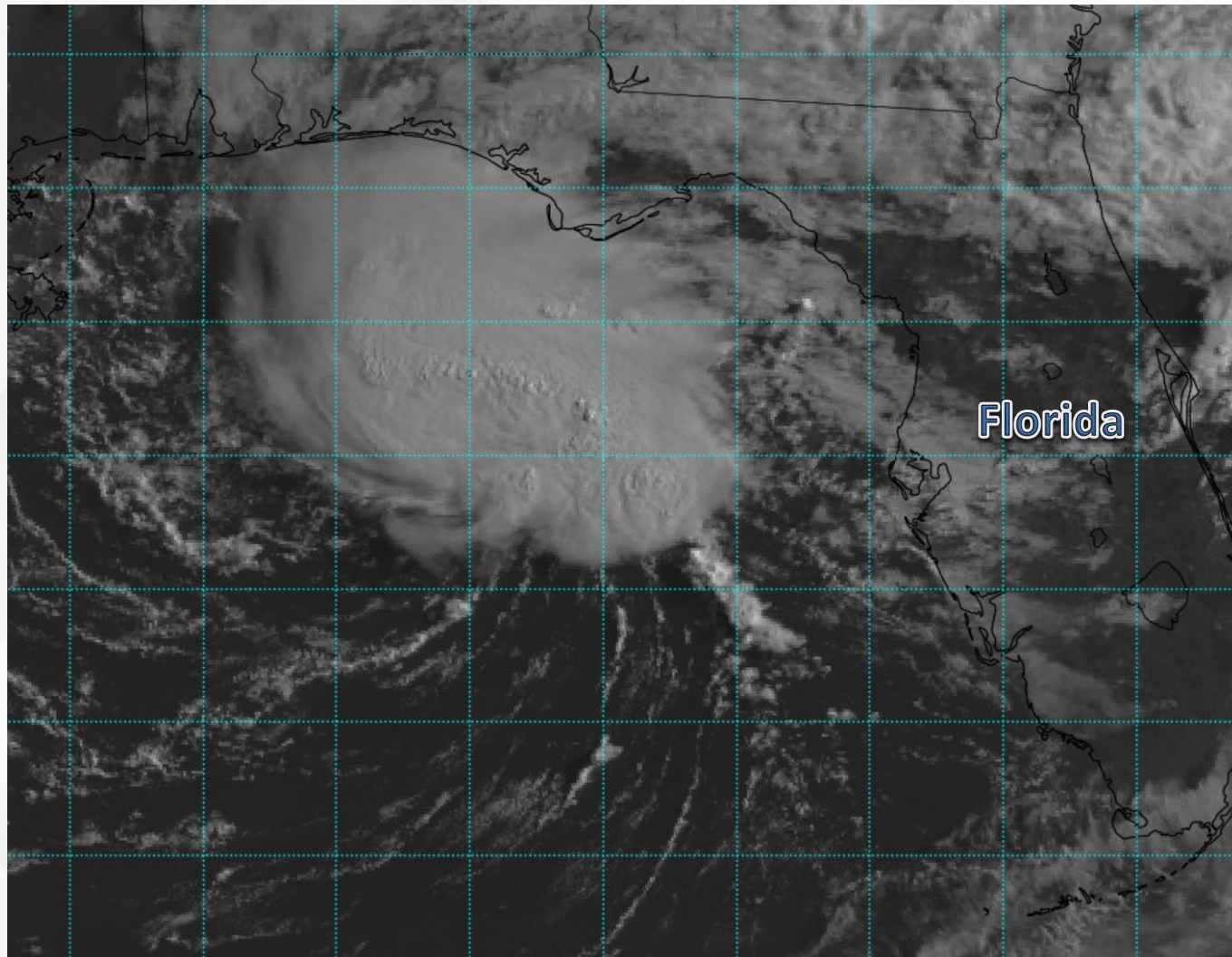
* Formation chance through 48 hours...**medium...50 percent.**

* Formation chance through 7 days...**medium...50 percent.**

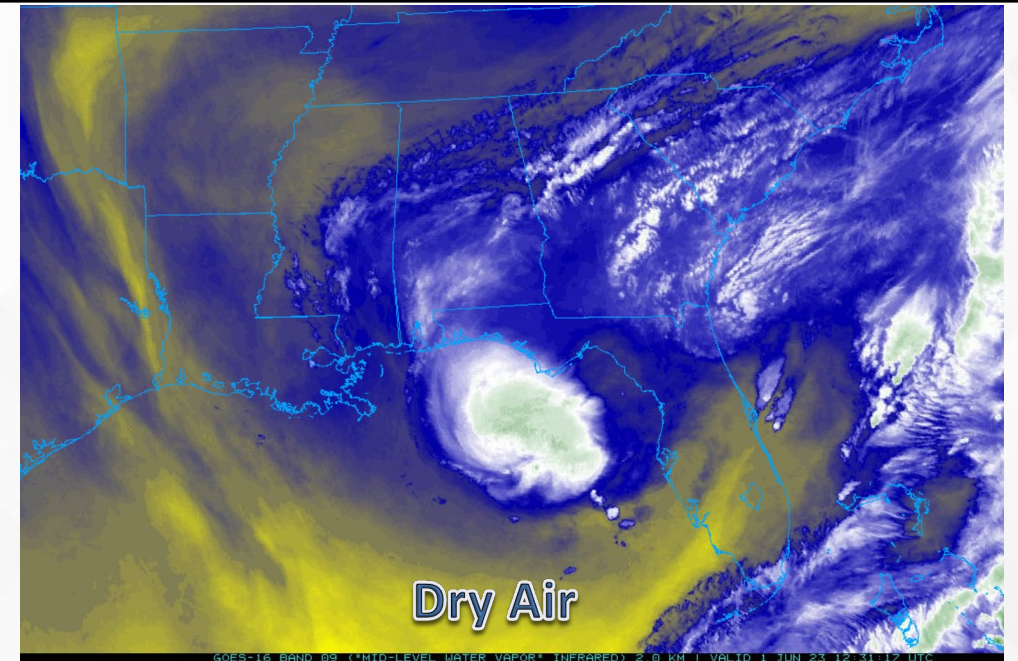


Current Satellite Imagery

Invest 91L



91L is a small cluster of thunderstorms over the northeastern Gulf of Mexico and are robust on the northern side of the center of circulation. Drier air surrounds 91L on the southern side of the system. Hurricane Hunters will determine if 91L has a defined center of circulation and the sustained wind speeds of the thunderstorm activity.



GOES-16 BAND 69 ("MID-LEVEL WATER VAPOR" INFRARED) 2.0 KM | VALID 1 JUN 23 12:51:17 UTC



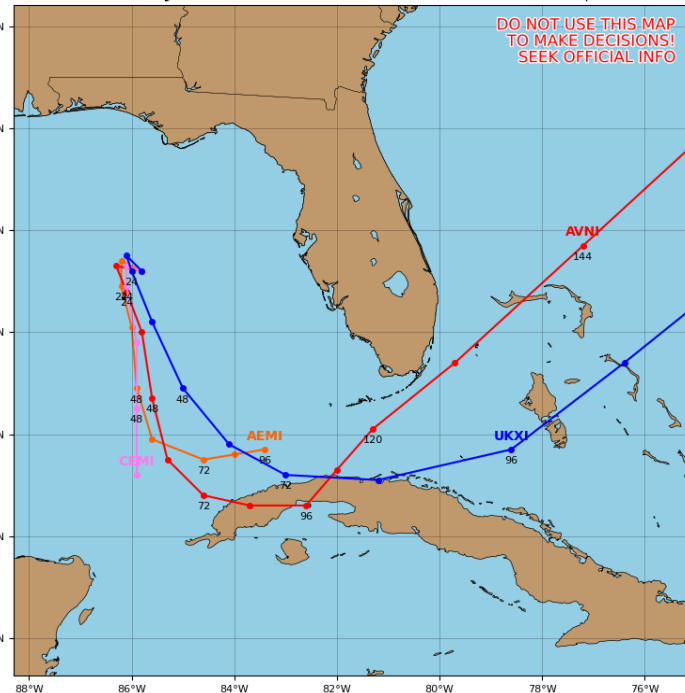
Model Forecasts – Next 5 Days

Invest 91L

Invest 91L Model Track Guidance

Initialized at 06z Jun 01 2023

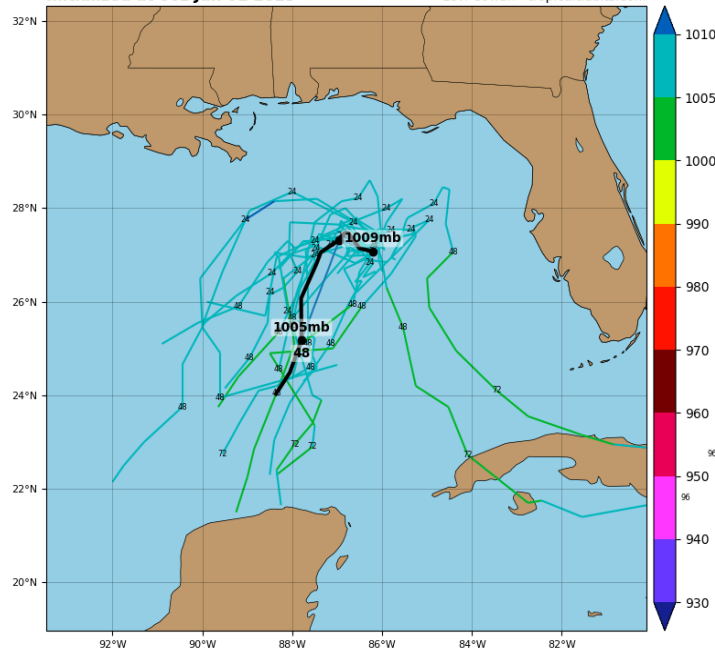
Levi Cowan - tropicaltidbits.com



91L INVEST - GEPS Tracks and Min. MSLP (hPa)

Initialized at 00z Jun 01 2023

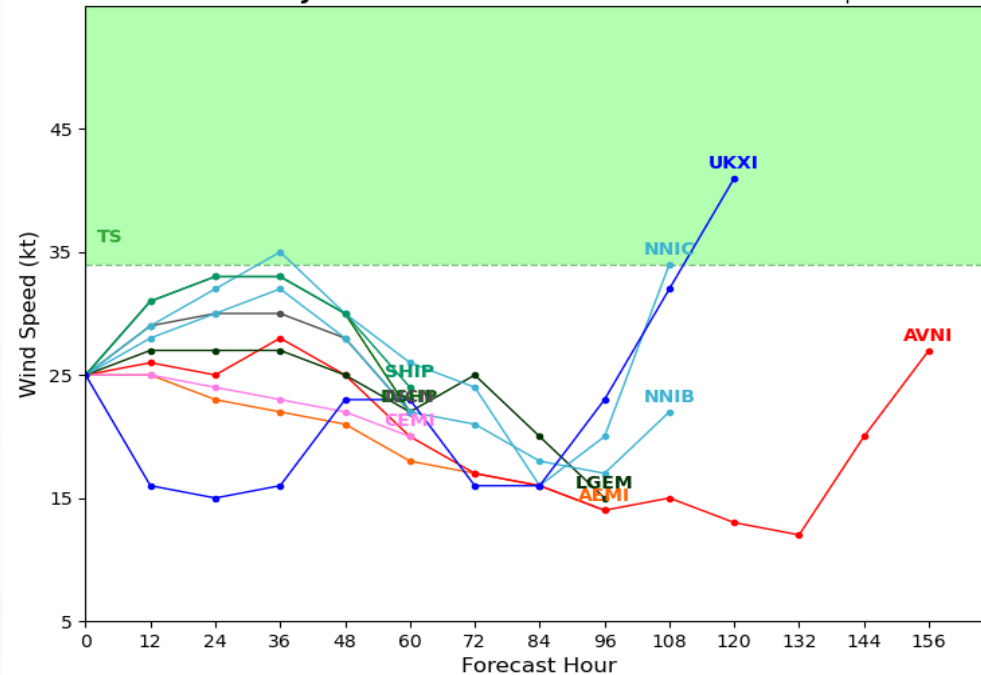
Levi Cowan - tropicaltidbits.com



Invest 91L Model Intensity Guidance

Initialized at 06z Jun 01 2023

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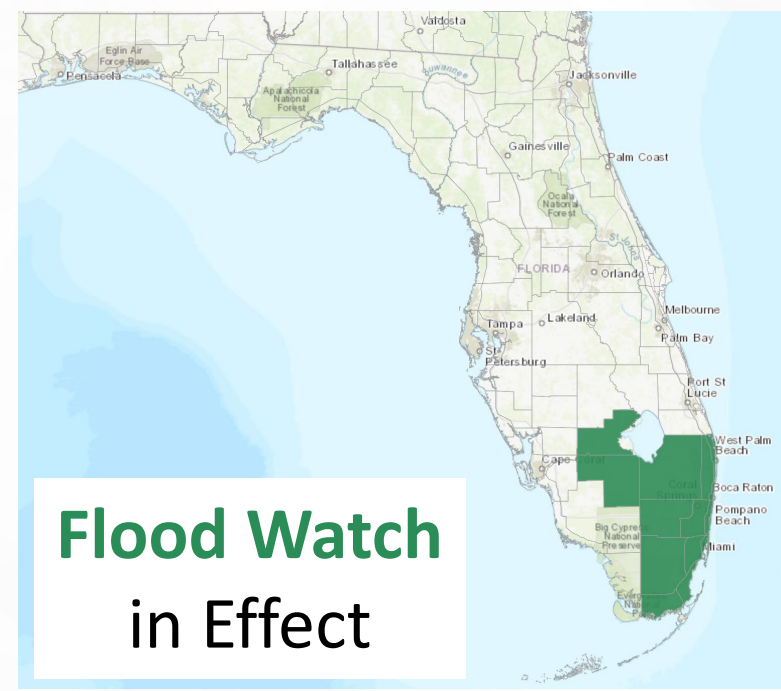
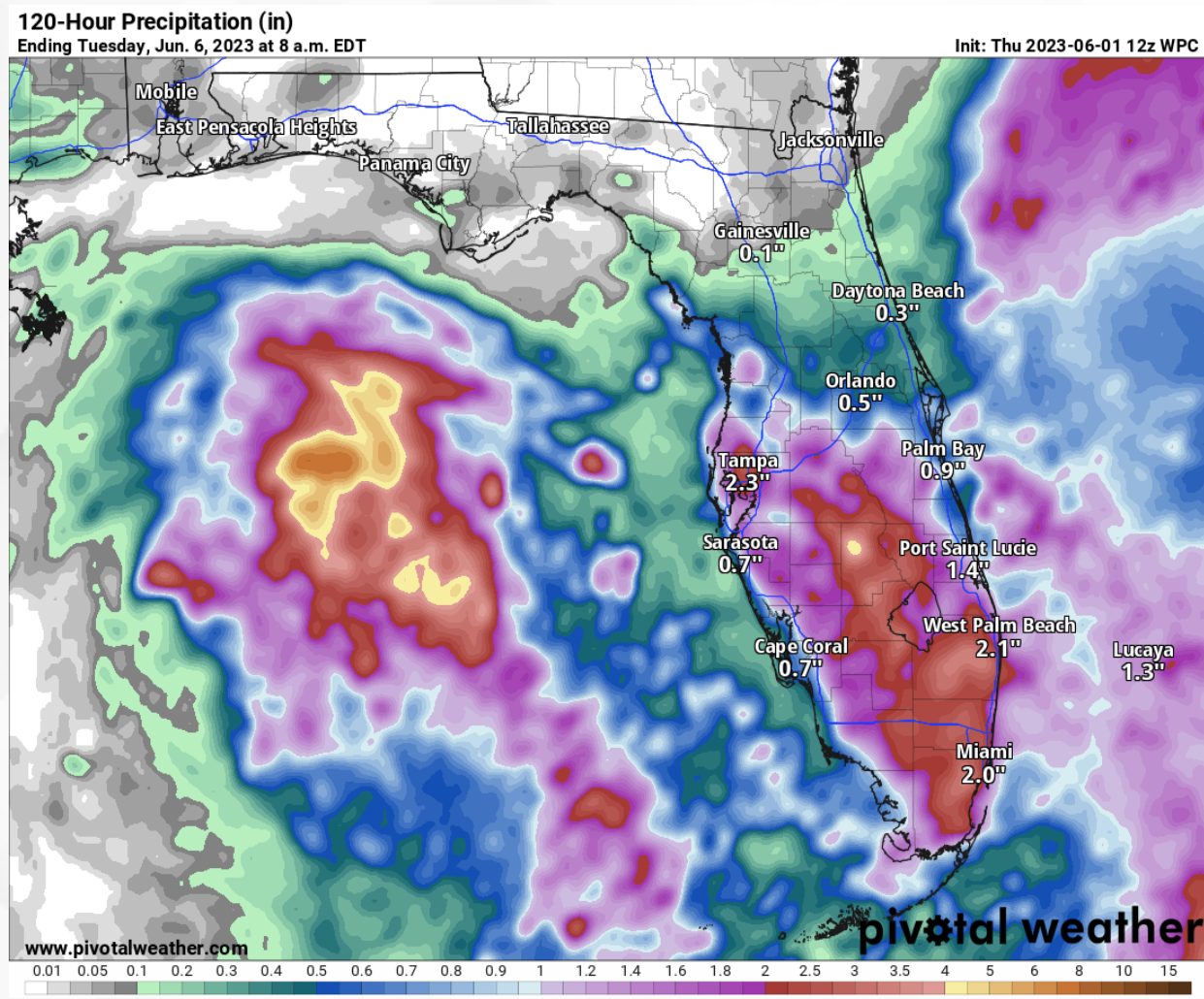
Computer models are gradually coming into better agreement on this system, with a general southward motion expected over the next 3 days. After that time, models are in disagreement, which is common for newly developing systems. Some models indicate the system dissipating in the southern Gulf of Mexico or the remnants being pulled into the Florida Straits and Atlantic Ocean by an approaching frontal system from the north.

The presence of dry air and the approaching frontal system will increase wind shear in the region, which should keep the system weak.



Flood Watches in Effect & 5-Day Forecast Rainfall

From the National Weather Service & Weather Prediction Center



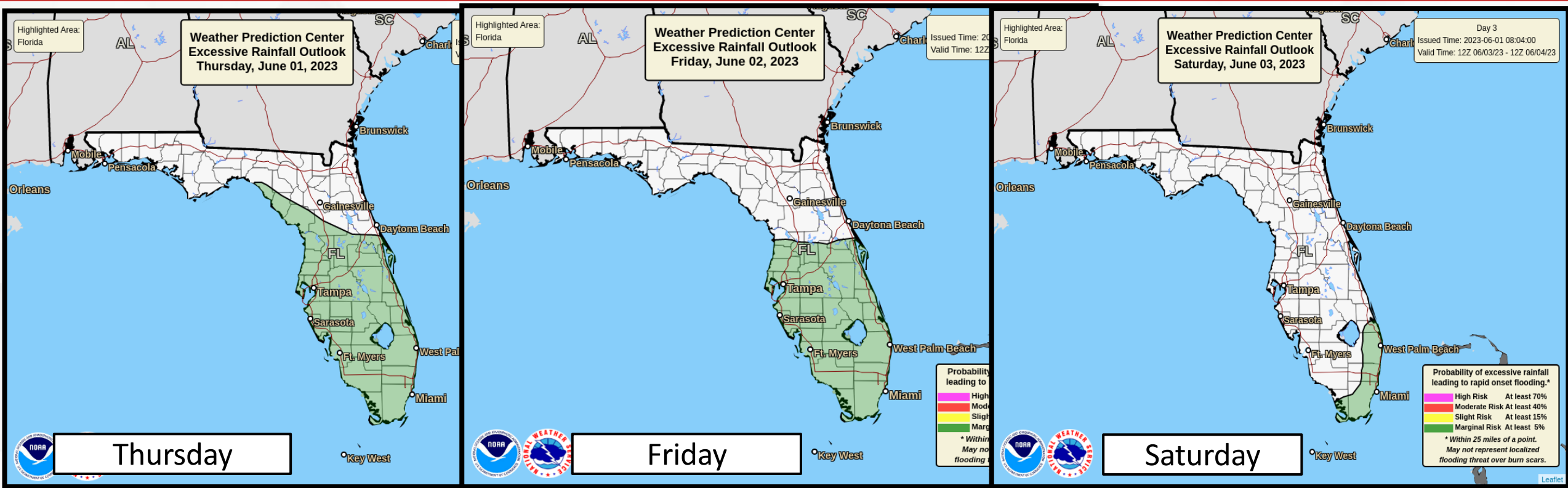
Until
Saturday AM

Tropical moisture from 91L will combine with the daily seabreezes to produce scattered showers and storms across the Peninsula and possibly portions of the Panhandle over the next 3-5 days. While cumulative rainfall totals over the next 5 days is forecast to be in the 1-3" range across South Florida and much of Central Florida, some of the rain could be locally heavy at times and result in higher rain totals closer to 4-8". **Flood Watches** are in effect for Southeast Florida through midnight Friday.



Flash Flood Outlooks

From the Weather Prediction Center



Probability of excessive rainfall leading to rapid onset flooding.*		
High Risk	At least 70%	
Moderate Risk	At least 40%	
Slight Risk	At least 15%	
Marginal Risk	At least 5%	

Tropical moisture from 91L combined with the daily seabreezes could cause locally heavy rain to occur across Central and South Florida over the next 2 days which could cause an isolated case of flash flooding.



Understanding WPC Excessive Rainfall Risk Categories

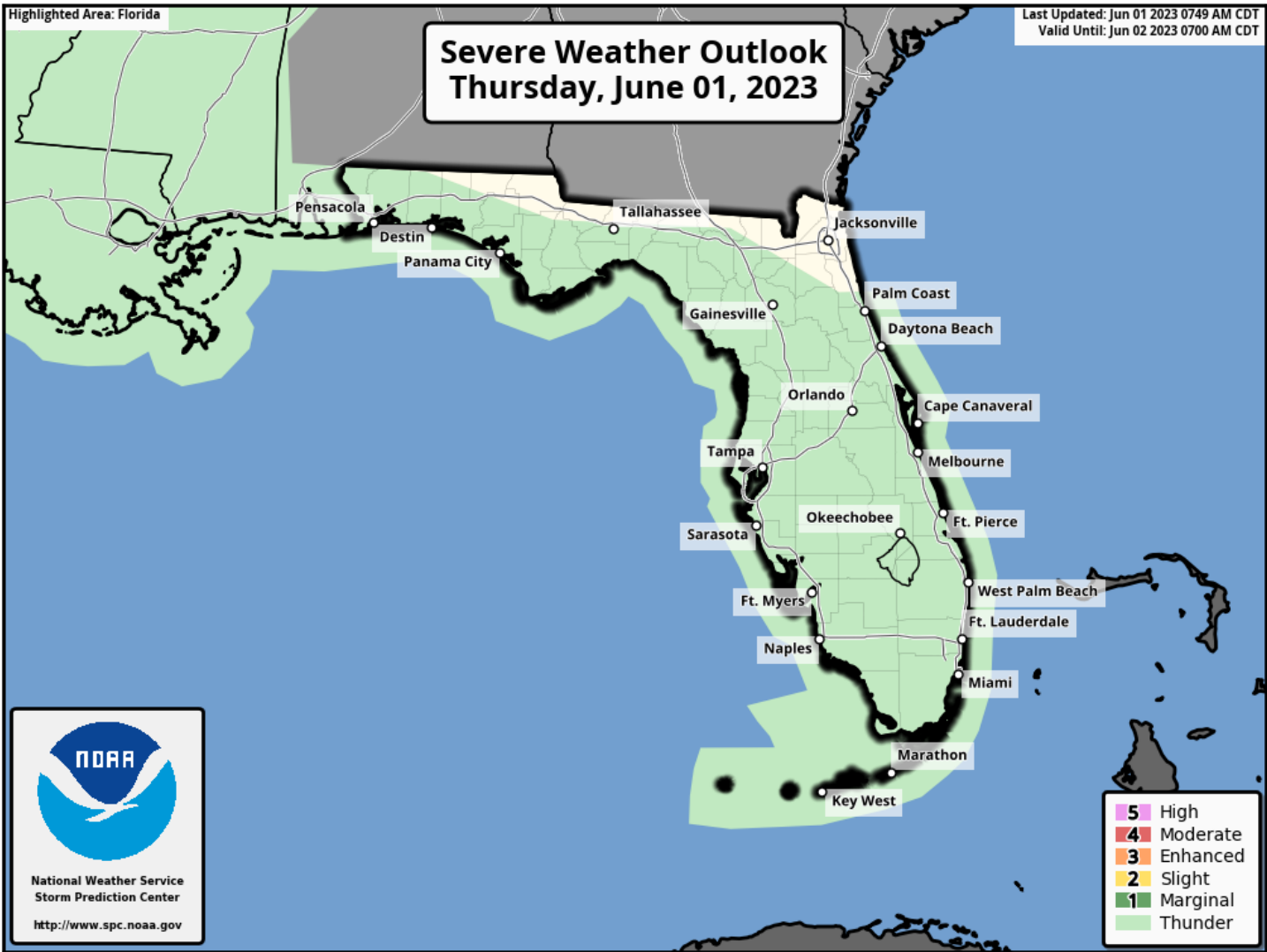
No Area/Label		MARGINAL (MRGL)	SLIGHT (SLGT)	MODERATE (MDT)	HIGH (HIGH)
Flash floods are generally not expected.		Isolated flash floods possible	Scattered flash floods possible	Numerous flash floods likely	Widespread flash floods expected
www.wpc.ncep.noaa.gov @NWSWPC		Localized and primarily affecting 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 NO Flash Flooding				
 WEATHER PREDICTION CENTER					



Severe Weather Outlook - Today

From the Storm Prediction Center

- 5 - High**
Widespread severe storms expected
- 4 - Moderate**
Widespread severe storms likely
- 3 - Enhanced**
Numerous severe storms possible
- 2 - Slight**
Scattered severe storms possible
- 1 - Marginal**
Isolated severe storms possible
- Thunderstorms**
No severe storms expected

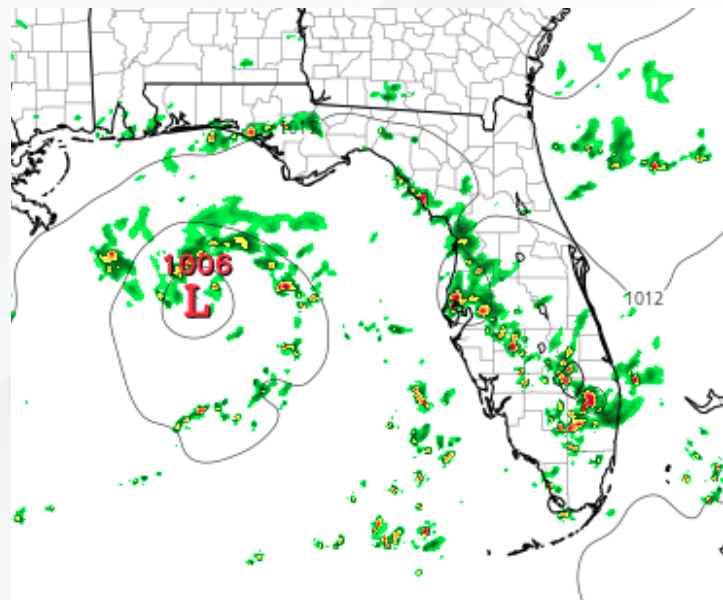


Widespread severe weather is not expected with this system. However, general thunderstorms could cause brief gusty winds and isolated waterspouts.

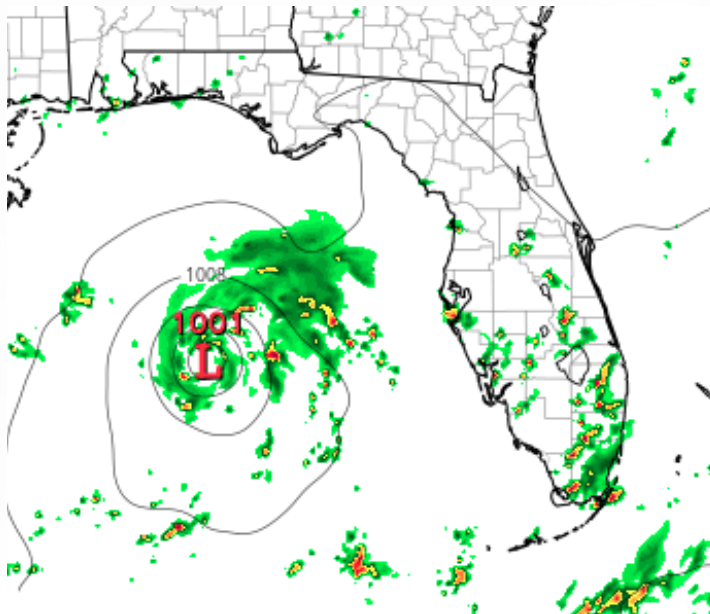


Model Forecast Radar

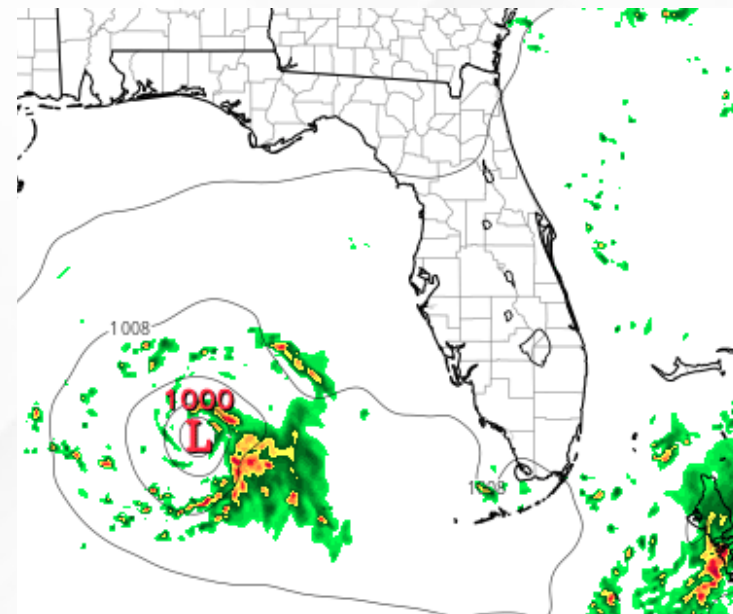
*****Only Model Guidance – Time & Position Will Vary*****



5 PM ET / 4 PM CT
Thursday



5 PM ET / 4 PM CT
Friday



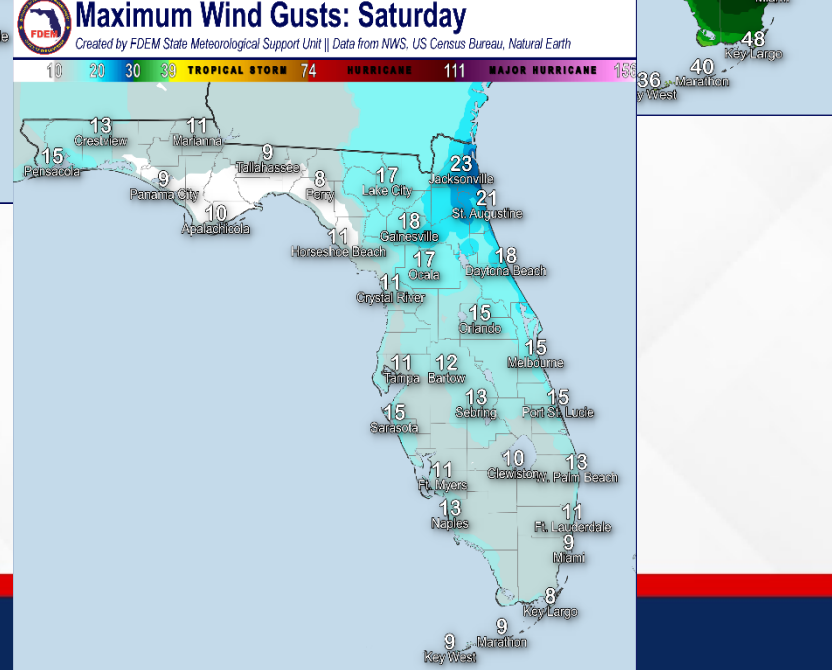
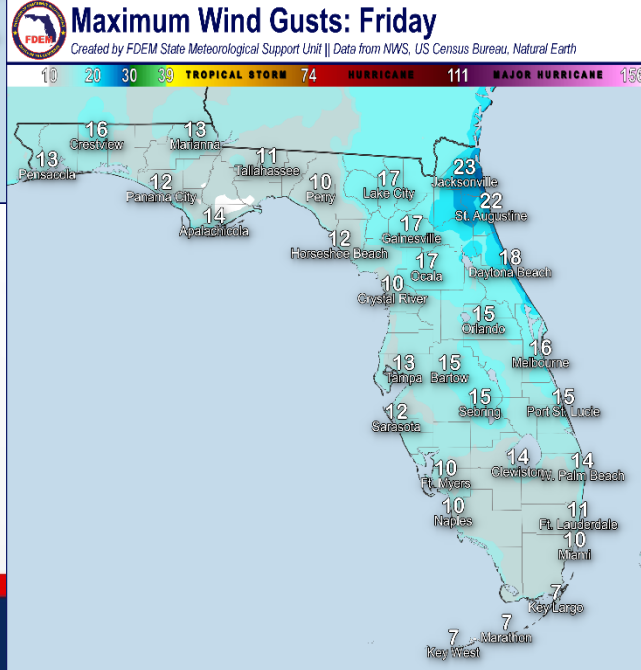
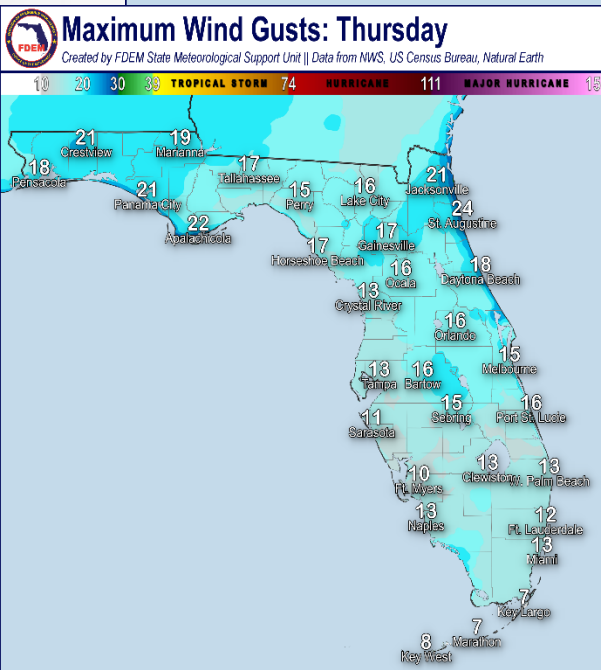
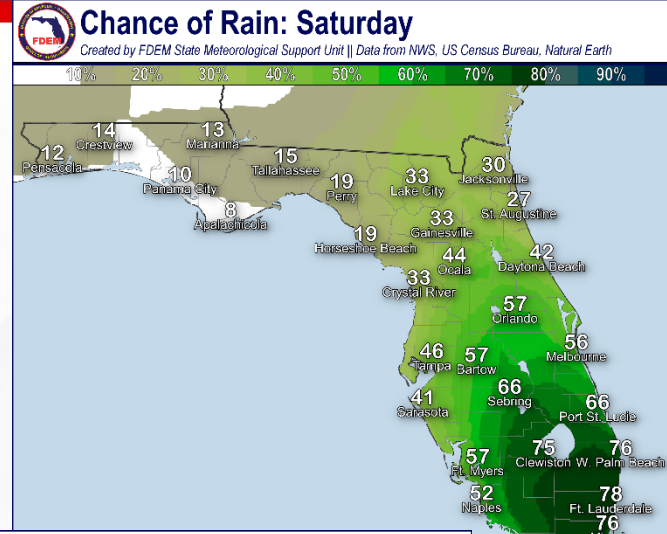
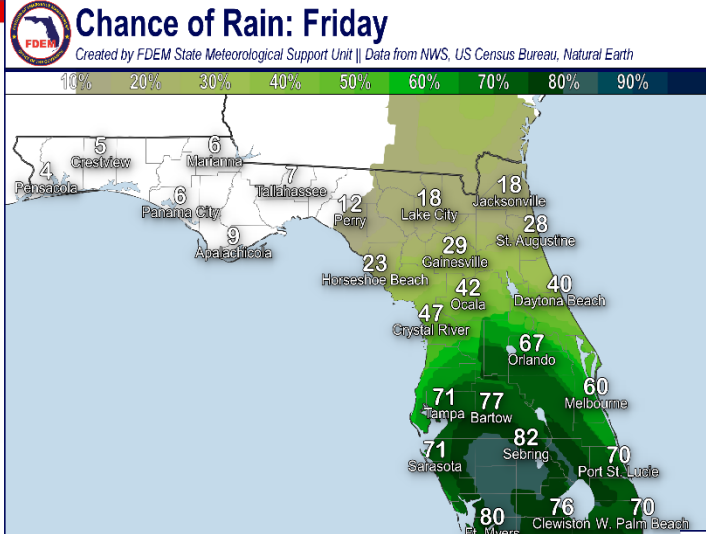
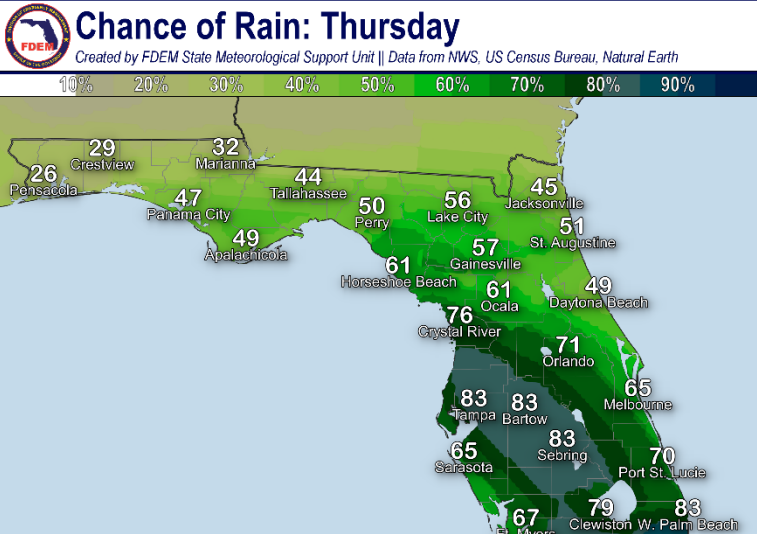
8 AM ET / 7 AM CT
Saturday

91L will drift southward over the next few days, but scattered storms will continue to affect portions of the Peninsula. Rain chances will decrease later this weekend.



Forecast Rain Chances and Max Wind Gusts

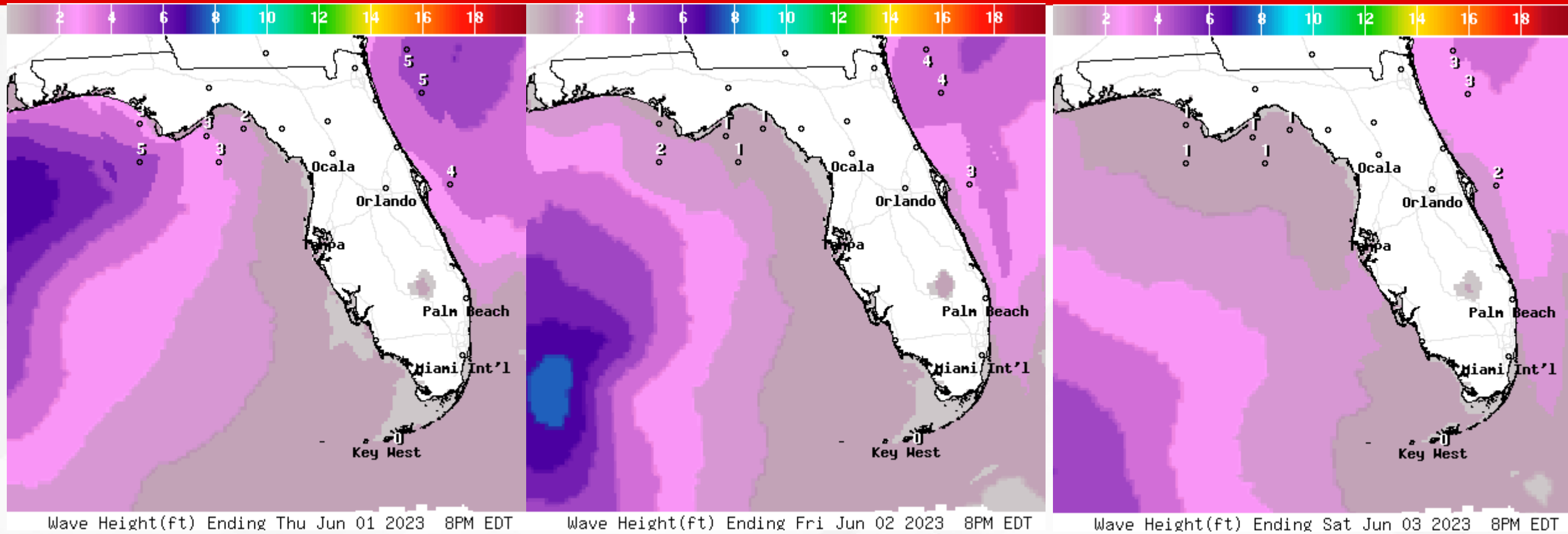
Next 3 Days





Forecast Wave Heights

Next 3 Days



Increased ocean swells and wave heights will result in a **high rip current risk** at all Panhandle and Big Bend beaches today. Wave heights should decrease on Friday and Saturday, but could still result in elevated rip current risks along the Gulf Coast.



Summary

Invest 91L:

- Showers and thunderstorms associated with an area of low pressure over the northeastern Gulf of Mexico have increased and become better organized overnight.
- This area of low pressure has been designated as Invest 91L and has a 50% (medium) chance of becoming a tropical depression or tropical storm within the next 48 hours.
- However, by this weekend environmental conditions are forecast to become unfavorable for additional development as the system drifts southward, likely remaining offshore over the Gulf of Mexico.
- An Air Force Reserve Hurricane Hunter aircraft will investigate the system today to determine if 91L is a tropical depression or storm.
- If named, the system would become Tropical Depression #2 (TD #1 occurred in January) or Tropical Storm Arlene.

Florida Outlook:

- Tropical moisture from 91L will result in scattered showers and storms across portions of the Florida Peninsula over the next 3-5 days.
 - Wind: Sustained winds across Florida are expected to be less than 15mph. However, daily thunderstorms across the Peninsula could result in brief wind gusts to 60mph.
 - Rain/Inland Flooding: Cumulative rainfall totals over the next 5 days is forecast to be in the 1-3" range across South Florida and much of Central Florida. However, some of the rain could be locally heavy at times and result in higher rain totals closer to 4-8" by Sunday. **Flood Watches** are in effect for Southeast Florida through early Saturday morning.
 - Coastal Flooding: Coastal flooding is not expected with this system. However, ocean swells from 91L will result in a moderate to high rip current risk along the Panhandle and Big Bend through Friday.
 - Tornadoes: Widespread severe weather is not expected with this system, but daily thunderstorms could produce isolated waterspouts or brief tornadoes.

The next briefing packet will be issued Friday. For the latest information, please visit the [National Hurricane Center website](#).



Tropical Update



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State Meteorological Support Unit

Florida Division of Emergency Management

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