

# TROPICAL UPDATE

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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**





Invest 90L: Satellite data and surface observations indicate that the trough of low pressure located over the Straits of Florida has generally changed little today. This system continues to produce a large area of disorganized shower activity and gusty winds across the Florida Keys, portions of southeast Florida, and the northwestern Bahamas. Gradual development of this system is still expected, and it will likely become a tropical or subtropical storm on Saturday when it is located near the northwestern Bahamas. Later in the weekend and early next week, the system is expected to move generally northeastward over the western Atlantic. *Regardless of development, the disturbance will continue to bring heavy rainfall and wind gusts to tropical-storm-force across portions of the Florida Keys, southeast Florida and the Bahamas through Saturday*. In addition, hazardous marine conditions are expected along the Florida east coast and in the Bahamas where Gale Warnings are in effect. *Dangerous surf conditions and rip currents are possible along portions of the southeast U.S. coast this weekend and early next week*. An Air Force Reserve Hurricane Hunter aircraft is scheduled to investigate the disturbance tomorrow morning, if necessary.

\*Formation chance through 48 hours...high...80 percent.

\*Formation chance through 5 days...high...80 percent.

## **Steering Currents**



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



CIMSS ENV STEERING PRODUCT: 700-850 HPA LAYER (FOR TO MSLP RANGE: 1000-1010 HPA) 1800 UTC 15MAY20

## Model Ensemble Track Guidance



An area of low pressure will develop over the northwestern Bahamas tonight or Saturday. The system (likely tropical/subtropical storm) will move northeastward over the western Atlantic between the US East Coast and Bermuda. Wind gusts up to tropical-storm-force may be possible along coastal Southeast Florida and in the Keys, mainly in stronger thunderstorms tonight.

### Wind Shear (shaded) and Wind Shear Tendencies (contoured)

Shear has decreased significantly over Invest 90L. This should allow for organization and development. Shear is also decreasing ahead of 90L (denoted by the blue dashed lines).



#### Western Atlantic Sea Surface Temperatures and Anomalies



#### Initialized at 18z May 15 2020 Levi Cowan - tropicaltidbits.com 55 UKXI AEMI Wind Speed (kt) 45 HWEI TS 35 NODI 25 COTI 15 -12 24 36 48 108 120 132 0 60 72 84 96 144 156 168 Forecast Hour

The system is likely to reach tropical storm strength early next week over the open waters of the Southwest Atlantic.

#### Invest 90L Model Intensity Guidance



### Current Radar as of 4:10 PM EDT

### **Model Forecast Radar**

\*\*\*Only Model Guidance – Not an Actual Forecast. Time & Position Will Vary\*\*\*



The isolated thunderstorms and heavy showers across Southeast Florida this morning may become more widespread across all of South Florida by this afternoon. Rain chances decrease tonight and will likely be better near the East Coast. Additional showers and thunderstorms will develop tomorrow afternoon across the Peninsula but are not expected to be as widespread as today.



## <u>Rain Chances</u> Tonight - Sunday

High rain chances will continue across the Peninsula through Saturday, before ending Saturday night into Sunday. The best chances for showers and thunderstorms will be in Southeast Florida and the Treasure Coast. However, scattered thunderstorms may occur in Central Florida as well, with isolated activity in Northeast Florida.

Widespread severe weather is not expected. However, gusty winds of 40-50 mph, waterspouts, locally heavy downpours, and frequent lightning will accompany the stronger storms, mainly tonight and Saturday.

## **Forecast Rainfall Totals Next 48 Hours**

Locally heavy rainfall is likely in Southeast Florida today. Isolated cases of flash flooding are possible, particularly in urban and low-lying areas where street flooding may occur.

Significant, wetting rainfall is not expected in the Panhandle for the next 7

days.



Isolated flash floods possible

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







Wind Gusts Friday & Saturday

Gusty winds are also possible outside of the showers and storms. Wind gusts of 25-35 mph are possible in the Peninsula. Higher wind gusts may occur in rain bands.

## <u>Wave Heights</u> Friday - Monday

Waves will remain high this weekend as the system becomes better organized offshore. This combined with breezy easterly winds will result in a high rip current risk for Atlantic beaches through this weekend. Conditions improve starting early next week.





## Summary

#### Invest 90L (Bahama Low)

- The area of low pressure has not become better organized today, but shear is decreasing and environmental conditions are becoming more favorable for development.
- This disturbance will likely become a tropical or subtropical storm on Saturday as it nears the northwestern Bahamas.
- The system is expected to move northeast around an area of high pressure, heading away from the state of Florida.
- Air Force Reserve Hurricane Hunters are scheduled to investigate the system on Saturday, if necessary.
- The National Hurricane Center gives this system an 80% (high) chance of formation during the next 48 hours and an 80% (high) chance of formation during days 2-5.
- If this system were to attain tropical storm intensity, the first name on the list is Arthur.

#### Florida Outlook:

- Locally heavy rainfall and gusts possibly to tropical storm force will be possible in the Florida Keys and coastal Southeast Florida through tonight. This threat decreases on Saturday.
- An additional 1-3" of rain are expected across Southeast Florida and the Florida Keys. Some areas could see an additional 3-5" of rain in the heaviest rain bands. Some parts of Miami-Dade County have already seen more than 4" of rain today.
- A Marginal Risk for flash flooding continues through tonight across Southeast Florida and the Keys, but recent drought should preclude any widespread flooding. Street flooding in urban areas is the main concern.
- Gusty winds of 40-50 mph, frequent lightning, and waterspouts are also possible in the stronger showers and thunderstorms.
- Windy conditions are possible outside of thunderstorms—gusts of 25-35 mph possible in the Peninsula.
- The rip current risk will likely remain high at Atlantic beaches into this weekend.

The next tropics packet will be issued Saturday morning. For the latest information on the tropics, please visit the National Hurricane Center website at <u>www.hurricanes.gov</u>.



# TROPICAL UPDATE



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