

11 AM EDT

Saturday, August 24, 2019 Tropical Depression #5, Invest 98L (90%)

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



Steering Currents

KTS

10

Invest 98L is moving slowly northward currently between two areas of high pressure. It will turn northeastward ahead of a southward moving cold front (pink line). Tropical Depression #5 is moving west to west-northwest around the southern edge of the large high pressure area.

CIMSS ENV STEERING PRODUCT: 700-850 HPA LAYER (FOR TO MSLP RANGE: 1000-1010 HPA) 0900 UTC 24AU319

Curren Shear KTS 70 50 10 Wind shear over 98L is low and remains low in its 20 path. Wind shear is a bit higher over TD #5, but lower wind shear generally lies ahead. Wind shear 10 is forecast to increase though in the eastern Caribbean. Decreasing -----

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

Shear Tendency (KTS) Over Past 24 Hours: Increasing — Decr 1 GOES-EAST 24 HOUR WIND SHEAR TENDENCY PRODUCT 0900 UTC 24AUG19

UW-CIMSS MeIDAS

North Atlantic Sea Surface Temperatures and Anomalies



Dry Air & Saharan Dust

Very Dr

Very Dry

5

Moist

Abundant dry, dusty air continues across much of the Atlantic. Dry air is near and ahead of TD #5, but it has fended off dry air so far.

98L

Moist

LESS <----- DRY AIR (LOW/MID-LEVEL) AND/OR DUSTY SAL AIRMASS -----> MORE

Dry



Tropical Depression #5 Satellite Image

- TD #5 continues to show signs of
- and storms are on the
- sides of the center.
- Further strengthening is forecast, and the depression is
 - expected to become a tropical storm.



Tropical Depression #5 Forecast Track

Tropical Depression #5 is located about 805 miles east-southeast of Barbados and is currently moving westward at 12 mph. Maximum sustained winds are near 35 mph. Strengthening is forecast, and the depression is forecast to become a tropical storm tonight or Sunday. The official forecast continues steady strengthening into a hurricane in the northeastern Caribbean Sea.

TD #5 Model Guidance

TD #5 will continue to move off to the west-northwest over the next several days. The system will likely reach the Lesser Antilles in about 4 days and Puerto Rico in about 5 days. Beyond that timeframe, it remains uncertain where TD #5 will go. The current NHC forecast is above most model guidance. Small storms like TD 5 can show rapid fluctuations in intensity and may be more sensitive to surrounding atmospheric conditions.





Invest 99L Model Track Guidance



Disturbance 1

8:00 am EDT

Sat Aug 24 2019

90W

100W

Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



5N

A broad area of low pressure located inland over South Florida is producing a large area of disorganized showers and thunderstorms that extends eastward over the northwestern Bahamas and the adjacent Atlantic waters. Significant development of the low is unlikely today while it drifts northward over the southern or central Florida Peninsula. However, environmental conditions appear conducive for gradual development once the low moves off the eastcentral coast of Florida over the western Atlantic by Sunday, and a tropical or subtropical depression is likely to form early next week while the system moves northeastward offshore of the southeastern United States Coast. Regardless of development, locally heavy rains are possible over the northwestern Bahamas and the southern and central Florida peninsula through the weekend. Interests in the northwestern Bahamas, the Florida Peninsula, and the southeastern coast of the United States should monitor the progress of this system. The Air Force Reserve Hurricane Hunter aircraft scheduled to investigate the system this afternoon could be postponed if the center of the low remains inland. Another aircraft is scheduled to investigate the system on Sunday.

*Formation chance through 48 hours...high...70 percent. *Formation chance through 5 days...high...90 percent.

40W

Storm

Current Disturbances and Five-Day Cyclone Formation Chance: Tropical or Sub-Tropical Cyclone: O Depression Post-Tropical Cyclone or Remnants ⊗

70W

60W

59W

80W

30W 20W \times < 40% 🔀 40-60% **X** > 60% Hurricane

GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 13:12Z Aug 24, 2019

TROPICALTIDBITS.COM

20



Invest 98L Satellite Image

The center of 98L $_{20}$ (yellow X) is along the coast of Martin and St. Lucie Counties. However, most of the showers and thunderstorms are displaced from the center. Conditions will be favorable for continued development once the system moves offshore today or Sunday.



Florida Radar as of 10:15 AM ET

Most of the showers have remained offshore so far. However, a few showers have now made it onshore in Southeast Florida. Locally heavy rainfall fell earlier this morning in parts of Palm Beach County.

Invest 98L Model Guidance

98L will move northward to northeastward today before turning northeastward out to sea. Models keep the storm away from the U.S. East Coast. 98L will likely stay weak according to most of the

models. Invest 98L Model Intensity Guidance



Invest 98L Model Track Guidance



Forecast Weather Maps with Fronts



Invest 98L will begin to move away from the state later today and Sunday as it gets pulled to the northeast by an approaching cold front. While rain chances will generally decrease over South Florida as 98L moves away, rain chances over North Florida will increase as the front sags southward.

Rain Chances Into Early Next Week



Rain chances will remain high as Invest 98L moves near and away from South Florida. 98L will then turn northward or northeastward today and move back offshore into the Atlantic. In addition to 98L, a cold front will also move southward into North Florida, enhancing rain chances across the northern part of the state into early next week.

Rainfall Totals Next 3 Days

The latest 3-day rainfall forecast confines the heavier rainfall amounts to the immediate coast and offshore. Still, 1-2" of rain is possible across much of the Peninsula with higher values near the coast. Localized totals of 3-5" are possible along the immediate East Coast.





Forecast Wind Speed & Forecast Wave Heights thisToday's Rip Current RiskDirection this AfternoonAfternoon

While the system is not particularly strong, some breezy winds along the East Coast will help create some higher waves. This will result in a moderate rip current risk for Northeast Florida today.

Summary

Tropical Depression #5

- Invest 99L has shown continued signs of organization, and the National Hurricane Center has now initiated advisories on Tropical Depression #5, located about 805 miles east-southeast of Barbados.
- TD #5 is moving to the west at 12 mph, and a slight turn to the west-northwest is expected over the next day or so. It should reach the Lesser Antilles by Tuesday and Puerto Rico by Thursday.
- Maximum sustained winds are near 35 mph, and slow but steady strengthening is forecast through the next several days. The depression is forecast to be come a tropical storm later tonight or Sunday. It could become a hurricane by the middle of next week.
- Beyond 5 days, it is uncertain where TD #5 will continue move or how strong it will be. Small systems such as TD #5 are more susceptible to surrounding atmospheric conditions, which could lead to fluctuations in intensity.

Invest 98L

- Invest 98L along the coast of Southeast Florida continues to show signs of organization.
- The system is expected to fully re-emerge into the Atlantic later today or Sunday as it slowly drifts northward or northeastward.
- 98L is likely to become a tropical depression later today or Sunday, depending on when the system moves back into the Atlantic.
- Invest 98L (possibly as a tropical depression or tropical storm) will continue moving northeastward off the coast of the Southeast U.S. over the next few days with little to no threat to land.
- This system has a 70% (medium) chance of formation during the next 48 hours and a 90% (high) chance of formation during the next 5 days.

Florida Outlook:

- Locally heavy rainfall is possible across Central and South Florida through Sunday. As a cold front approaches, rain chances will increase further across much of the state.
- Current rainfall totals across the Peninsula are 1-3" this weekend with locally higher totals of 3-5" possible, mainly near the coast.
- Due to antecedent saturated soils across the Peninsula, some isolated flooding is possible, especially in low-lying, poor drainage, or urban areas.
- Onshore winds may be occasionally gusty. This combined with waves around 2-3' results in a moderate rip current risk for Northeast Florida beaches.
- Some of the heavier showers could contain brief gusty winds and isolated waterspouts.
- Due to recent rainfall, several Big Bend and West Coast rivers remain in minor flood stage, but have crested and are falling.
- Tropical Depression #5 poses no threat to Florida at this time. However, it should continue to be monitored.

The next tropics packet will be issued this afternoon. For the latest information on the tropics, please visit the National Hurricane Center website at <u>www.hurricanes.gov</u>. For the latest flood updates, see the latest products from your local National Weather Service, the <u>Southeast River Forecast Center</u>, and the <u>Weather Prediction Center</u>.



TROPICAL UPDATE



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