

TROPICAL UPDATE



11:00 AM EDT

Saturday, October 24, 2020 Hurricane Epsilon & Invest 95L (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.



Tropical Weather Outlook

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

FDEI





Steering Currents

What is Moving the Systems?

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

Epsilon will accelerate to the northeast over the open North Atlantic. Invest 95L will move slowly north or northwestward over western Cuba into the southeastern Gulf of Mexico over the next several days. Confidence in this track is low, but growing. **Epsilon**

CIMSS ENV STEERING PRODUCT: 700-850 HPA LAYER (FOR TC MSLP RANGE: 1000-1010 HPA) 1200 UTC 2400T20



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.



Epsilon will soon encounter higher wind shear, which will cause some weakening.

Invest 95L is in an area of low wind shear in the northwestern Caribbean.

Dry Air & Saharan Dust

Is the environment favorable for the system?

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



GOES-16: SAHARAN AIR LAYER TRACKING PRODUCT 12:00 UTC: 24 OCTOBER 2020 UW-CIMSS/NOAA-HR

Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Waters become cooler ahead of Epsilon, but a cooler atmosphere overall may help it maintain its strength. The Caribbean remains well warm enough to support tropical

Analysis Time: 06z Oct 24 202



Official Forecast Track

From the National Hurricane Center – Hurricane Epsilon



- The center of Hurricane Epsilon is located about 710 miles southwest of Cape Race, Newfoundland.
- Epsilon has maximum sustained winds of 80 mph (Category 1).
- Epsilon is moving to the northeast at 13 mph, and a faster forward motion is expected over the next several days.
- Swells from Epsilon will impact the East Coast through this weekend, resulting in dangerous rip currents.



Rip Current Outlook



Long period swells from distant Hurricane Epsilon will keep the rip current risk high at Atlantic beaches. Breezy easterly winds will create dangerous rip currents at Panhandle beaches.





Tropical Weather Outlook

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



Satellite, radar, and surface data indicate that a broad area of low pressure located just southwest of Grand Cayman Island is gradually becoming better organized, with a better defined wind circulation, increasing thunderstorm activity, and falling surface pressures since yesterday.

Environmental conditions are conducive for further development, and a tropical depression is expected to form within the next day or so while the low drifts toward the north and northwest.

The system could move near western Cuba on Monday and move slowly across the southeastern Gulf of Mexico by Tuesday.

A NOAA Hurricane Hunter reconnaissance aircraft is scheduled to investigate the disturbance this afternoon.

This system needs to be monitored for any additional potential impacts.

*Formation chance through 48 hours...high...90% *Formation chance through 5 days...high...90%



88°W

86°W

Satellite Imagery

GOES-16 Channel 2 (visible) Reflectance at 13:45Z Oct 24, 2020 TROPICALTIDBITS.COM 22°N -Cuba Yucatan Peninsula (Mexico) Jamaica Honduras

82°W

80°W

78°W

84°W

As weak systems generally do, the surface low pressure system reformed farther southwest overnight. Most of the thunderstorms remain displaced to the south of the center, which could result in more tugs southwestward as the system tries to organize. This results in a low-confidence short-term forecast.



Model Forecast Tracks

Ensemble & Dynamical Models



While there has been some increasing consensus about the system moving into the Gulf of Mexico, the recent center relocation and possible additional relocations could cause these models to change. In general, it appears that 95L will enter the Gulf of Mexico Tuesday morning. If it makes it to the northern Gulf Coast, it would be about 5 days away.



Rainfall Totals Next 7 Days

Init: Sat 2020-10-24 12z WPC

Ending 8 AM ET Saturday

7-Day Precipitation (in) Ending Saturday, Oct. 31, 2020 at 8 a.m. EDT



Rainfall totals of 3-5"+, locally higher, are expected across Southeast Florida.

Some parts of metro Southeast Florida and the Keys have seen 6-10" of rain in the last 5 days.

A cold front next week could produce better rain chances across the Panhandle. This cold front may siphon some moisture from Invest 95L if it ends up in the Gulf of Mexico.

Most of the rain will also be on 95L's east side, especially if it is a sheared system. 2-4" of rain is currently expected across the Panhandle next week.



Flood Watches

Links: <u>NWS Miami</u>



A Flood Watch remains in effect for parts of Southeast Florida.

*WHEN: Through Sunday evening

*WHERE: coastal & metro Palm Beach, coastal & metro Broward, and all of Miami-Dade Counties

Periods of heavy rainfall are possible through the weekend. Additional rain accumulations of 3 to 6 inches, with isolated higher amounts possible.

Heavy rainfall may produce flooding and/or flash flooding in urban locations as well as small creeks, streams, and canals. This is especially true for areas that recently received heavy rainfall, and for areas near the coast due to the combination of heavy rain and astronomically high tides.

Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?



Across Southeast Florida, it will only take about 1.5-3" within 1 hour or about 2-4" within 6 hours to cause flash flooding.

Soils remain super-saturated in this area, and rainfall will more easily run off, causing flooding concerns.



Flash Flood Outlooks

From the Weather Prediction Center



Risk of rainfall exceeding flash flood guidance
within 25 miles of a point to the right of a lineHIGH: > 50%SLGT: 10%-20%MDT: 20%-50%MRGL: 5%-10%

Because of the recent heavy rainfall, an isolated case of flash flooding is possible across parts of Southeast Florida into this weekend.

Locally heavy rainfall is also possible today in North Florida associated with a cold front.

FDEM FORCEAST

Forecast Rain Chances

Next 3 Days



Numerous showers and storms will remain possible across South Florida through this weekend as the Caribbean system moves into the Bahamas. The forecast into next week is more uncertain and greatly depends on the track of Invest 95L. In general, rain chances will decrease across South Florida and increase in North Florida later in the week.



Overall Summary

Invest 95L – Western Caribbean

- An area of low pressure over the western Caribbean near the Cayman Islands continues to become better organized.
- Further organization is possible, and this system could become a tropical depression over the next day or so.
- This system has a 90% (high) chance of development; the next name on the list is Zeta.
- While models are showing less spread, the recent and possible additional center relocations will cause forecasts to change.
- 95L is likely to enter the southern Gulf of Mexico, and a cold front will likely pick up 95L, but where/when that happens is highly uncertain.
- This system needs to be monitored for any impacts to Florida.

Hurricane Epsilon

- The center of Epsilon is located about 710 miles southwest of Cape Race, Newfoundland, moving northeast at 13 mph.
- Epsilon remains a Category 1 hurricane with maximum sustained winds near 80 mph.
- A gradual weakening is forecast as Epsilon becomes non-tropical over the north Atlantic.

Florida Outlook:

- Epsilon poses no threat to Florida. Swells from Epsilon will impact the East Coast through the upcoming weekend, resulting in a high rip current risk.
- Moisture from Invest 95L will continue to bring the threat of heavy rainfall to South Florida and the Keys. Flood Watches remain in effect for coastal Southeast Florida.
- It remains too early to determine if there will be additional impacts to South Florida and the Keys.
- Dangerous rip currents and building waves may be possible later in the week along Gulf Coast beaches.
- While it's too early to determine exact impacts to North Florida, it appears that heavy rainfall could be possible later in the week as 95L and a cold front interact.
- The forecast remains low confidence and is subject to change.

The next briefing 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>.



TROPICAL UPDATE



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