

TROPICAL UPDATE



8:00 AM EDT Tuesday, October 6, 2020 Hurricane Delta

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.





GOES-16 Channel 13 (IR) Brightness Temperature (°C) at 11:15Z Oct 06, 2020 Cuba 20°N Cayman Islands Jamaica 18°N Honduras 14°N 80°W 78°W

Delta continued to rapidly strengthen overnight and continues to have a small but well-defined core. It has a tiny, 8 mile wide eye. The small size of the system makes it easier to intensify and periods of rapid intensification may continue today.



Official Forecast Track

From the National Hurricane Center – Hurricane Delta



- Delta continues to rapidly strengthen and reached hurricane strength overnight. Delta is now a Category 2 Hurricane with maximum sustained winds near 110 mph.
- The center of Delta is located about 350 miles southeast of Cozumel, Mexico, and moving to the west-northwest at 15 mph.
- Delta is a small but powerful hurricane. Hurricane force winds only extend out 25 miles. The storm will likely grow in size once it reaches the Gulf.
- Delta will continue to strengthen (rapidly at times) and is now forecast to be a Category 4 Major Hurricane as it moves into the Yucatan Peninsula Wednesday night and then across the central Gulf of Mexico.
- Later this week, the system will approach the northern Gulf Coast and only minor weakening is expected before landfall.

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

What is Moving the Systems?

Steering Currents

High pressure has built in over Florida and the southwest Atlantic. Delta will move around the edge of this high pressure system: northwest into the Gulf of Mexico and the north and northeast later this week into the northern Gulf Coast.

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Wind Shear

Is the environment favorable for the systems?

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.

Delta is experiencing little to no wind shear and is in a very favorable environment. This favorable environment will continue until the system reaches the northern Gulf of Mexico later in the week.





Sea Surface Temperatures & Anomalies

Is the ocean favorable for the system?

Water temperatures are supportive for tropical development across the entire Caribbean, with very warm, deep water. The recent stretch of storms and cold fronts has cooled waters in the northern Gulf of Mexico, but they remain warm enough to support a hurricane.

Analysis Time: 00z Oct 06 2020

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Key Messages

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From the National Hurricane Center – Hurricane Delta

Key Messages for Hurricane Delta Advisory 7: 5:00 AM EDT Tue Oct 06, 2020

1. Extremely dangerous storm surge and hurricane conditions are expected within portions of the northern Yucatan Peninsula of Mexico beginning tonight, and a Hurricane Warning is in effect.

2. Heavy rainfall will affect portions of the Cayman Islands, western Cuba and the northern Yucatan Peninsula through midweek. This rainfall could lead to

significant flash flooding and mudslides. The potential for heavy rain and flash flooding will increase across portions of the central Gulf Coast, Tennessee Valley, and southeastern United States as Delta moves inland later this week.

3. Delta is forecast to approach the northern Gulf Coast late this week as a hurricane. While there is large uncertainty in the track and intensity forecasts, there is a significant risk of dangerous storm surge, wind, and rainfall hazards along the coast from Louisiana to the western Florida Panhandle beginning Thursday night or Friday. Residents in these areas should ensure they have their hurricane plan in place and monitor updates to the forecast of Delta.





For more information go to hurricanes.gov

Time of Arrival & Wind Speed Probabilities

EARLIEST REASONABLE Time of Arrival of Tropical Storm Force Winds (>39 mph)



Tallahassee: 10% (+3) Apalachicola: 14% (+3) Panama City: 20% (+5) Destin: 28% (+7) Pensacola: 36% (+8) Pensacola NAS: 39% (+8)

Numbers in parentheses denote change in probability since the last briefing packet.

In the Panhandle, if winds were to occur, they are most likely to start Friday night or early Saturday morning. However, they could start as early as Friday afternoon along the coast.

The timeline for the storm has slowed down compared to the previous advisories.



Hurricane Wind Speed Probabilities

Probabilities of <u>Sustained</u> Hurricane Force Winds (>74 mph)



Apalachicola: 1% (+1) Panama City: 2% (+1) Destin: 2% (+1) Pensacola: 5% (+2) Pensacola NAS: 7% (+4)

Numbers in parentheses denote change in probability since the last briefing packet.

The current odds of hurricane force winds in Florida are very low (near or less than 5%).

However, it is early in the forecast and the trends in these numbers should be monitored.

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Current & Forecast River Flooding

Southeast River Forecast Center

Rivers Currently in or Forecast to Reach Flood Stage:

- <u>St. Johns River at Astor</u>- Moderate
- <u>Peace River at Bartow</u>- Minor
- Peace River at Arcadia- Minor
- Minor coastal flooding at high tide in Northeast Florida, including the tidal St. Johns River and its tributaries.
- Additional river flooding is not forecast in the Peninsula from forecast rainfall totals.

More details on river levels available at the <u>Southeast River Forecast Center website</u>.





Rainfall Totals Next 7 Days

ll Change Based on Track Shifts – Based on Perfect Forecast into LA – Heaviest Rain East of Landfall*



- Little to no rainfall across the Panhandle and western Big Bend through mid-week
- Locally heavy rainfall in the Peninsula each afternoon
- A heavy rainfall event is possible Friday-Saturday in the Florida Panhandle as Delta makes landfall (2-6").
- This would result in at least an isolated flash flood threat.

Forecast Wave Heights

Late Week – Hurricane Delta



Palm

Beach

Wave heights will increase in the Gulf of Mexico starting on Wednesday from Delta. High surf will create beach erosion and minor coastal flooding, particularly in locations that experienced significant beach/dune damage from Hurricane Sally a few weeks ago.



Rip Current Outlook



Swells from Gamma along the Gulf Coast and breezy northeast winds along the East Coast will elevate the rip current risk today.



Tropical Weather Outlook

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

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Overall Summary

Remnants of Gamma

- Gamma dissipated overnight and the National Hurricane Center issued the last advisory.
- The remnants will be absorbed into Delta on Wednesday or Thursday.

Hurricane Delta

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- The center of Delta is located about 350 miles southeast of Cozumel, Mexico, and moving to the west-northwest at 15 mph.
- Delta is a small but powerful hurricane. The eye of the storm is only about 8 miles across. The storm will likely grow in size once it reaches the Gulf.
- Delta will continue to strengthen (rapidly at times) and is now forecast to be a Category 4 Major Hurricane as it moves into the Yucatan Peninsula Wednesday night and then again across the central Gulf of Mexico.
- Later this week, the system will approach the northern Gulf Coast and only minor weakening is expected before landfall. However, the storm may grow in size.



Florida Outlook

Florida Outlook:

- Hurricane Delta poses a direct threat to the Florida Panhandle and should be monitored closely.
- The western Florida Panhandle is in the 5-day forecast cone for where the center of the storm could be.
- While confidence is highest and there has been consistency on a Louisiana landfall, the average track error at Day 4 is ~150
 miles and the forecast cone takes this into account.
- Even with a landfall as far west as New Orleans or Mississippi, direct impacts would be felt in the western Panhandle.
- Changes in the track forecast are possible over the next couple of days as Delta interacts with the remnants of Gamma, interacts with an approaching cold front, and experiences rapid changes in intensity.
- Swells from Delta will result in a high rip current risk at Gulf Coast beaches into this weekend.
- High surf of 4-8' in the Panhandle may result in beach erosion and some coastal flooding in locations with damaged dune lines from recent Hurricane Sally.
- Direct impacts to the Florida Panhandle remain possible- including storm surge, damaging wind, heavy rainfall, and tornadoes. However, it is too early to determine the extent of these impacts. The further west the storm tracks, the less the impacts to Florida.
- If winds were to arrive in the Panhandle, it would not be until sometime Friday afternoon or Friday night.

The next briefing packet will be issued this afternoon with the 5PM advisory. For the latest information on the tropics, please visit the National Hurricane Center website at <u>www.hurricanes.gov</u>.



TROPICAL UPDATE



Created by:

Michael Spagnolo, Deputy State Meteorologist

Michael.Spagnolo@em.myflorida.com

State Meteorological Support Unit Florida Division of Emergency Management

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