

## TROPICAL UPDATE



## 10:00 AM EST Thursday, November 5, 2020

### **Tropical Depression Eta**

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.



## Satellite Imagery Tropical Depression Eta – Central America



The low-level center has continued to drift over the mountains of Honduras. However, the system has a broad rotation (yellow circle) as it has become more diffuse. The thunderstorms over the Caribbean are preconditioning the environment for the redevelopment of Eta.





# Official Forecast Track

### From the National Hurricane Center – Tropical Depression Eta



- The center of Eta is located about 80 miles southwest of La Ceiba, Honduras, moving northwest at 9 mph.
- Maximum sustained winds are near 30 mph, and Eta is now forecast to remain a tropical depression through Friday.
- Eta will emerge into the Gulf of Honduras tonight, approach the Cayman Islands and Cuba this weekend, then be over the Florida Straits by Monday.
- Slow, steady intensification is forecast once it moves over the Caribbean Sea.
- However, the details on the track and intensity will remain uncertain until the system moves back over water.
- Once the storm is near the Florida Keys or over the Florida Keys, Eta may turn more westward into the eastern Gulf of Mexico.
- It's important to not focus too much on the cone as impacts will extend well outside of the cone.

## Key Messages

TEAR

### From the National Hurricane Center

#### Key Messages for Tropical Depression Eta Advisory 20: 9:00 AM CST Thu Nov 05, 2020

1. Through Monday morning, heavy rainfall from Eta will lead to catastrophic, life-threatening flash flooding and river flooding across portions of Central America, along with landslides in areas of higher terrain. Flash and river flooding is also possible across Jamaica, southeast Mexico, the Cayman Islands and western Cuba.

2. Eta is forecast to regain tropical storm strength over the northwestern Caribbean Sea late this week. Although the details of the future track and intensity of Eta are uncertain, there is an increasing risk of impacts from wind and rainfall in portions of the Cayman Islands, Cuba, southern Florida and the Florida Keys this weekend and early next week.





#### For more information go to hurricanes.gov



## Time of Arrival & Wind Speed Probabilities

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



Key West: 26% (+10) Marathon: 25% (+6) Miami: 11% (-2) Ft. Lauderdale: 18% (+1) West Palm Beach: 15% (+1) Naples: 18% (+2) Ft. Myers: 8% (-2) Tampa: 8% (-2) \*The numbers in parenthesis show the change in probability since the last briefing packet.\*

Tropical storm force winds could begin as early as Sunday morning or Sunday afternoon in the Keys and South Florida, then near Lake Okeechobee Sunday night. However, it's more likely they would begin Monday morning.

## Sea Surface Temperatures & Anomalies

#### Is the ocean favorable for the system?

CDAS Sea Surface Temperature (°C)

Temperatures across the Caribbean and near South Florida remain warm enough to support a hurricane. These temperatures are above normal for early November. Other factors, like dry air and wind shear, will determine the intensity of Eta near Florida.

Analysis Time: 06z Nov 05 2020



# Forecast Rain Chances

UNRELATED TO TROPICAL STORM ETA\*



A stalled front will bring additional moisture back to the Keys and South Florida, then spread northward into Central Florida and the East Coast through Friday. This is well in advance of any impacts Tropical Storm Eta.

## Rainfall Totals Next 2 Days \*UNRELATED TO TROPICAL STORM ETA\*



The stalled front will bring a potential for heavy rainfall tonight through the end of the week in Southeast Florida and across the Keys.

Rainfall totals of 1-3" are possible through the end of the week with locally higher totals of 4-6" possible. This could result in some localized flash flooding.

# Rainfall Totals Next 7 Days

Ending 7 AM ET Wednesday



As Eta approaches this weekend into early next week, additional heavy rainfall is likely across South Florida and the Keys, gradually spreading northward into next week.

There remains considerable uncertainty in the exact placement of the heavy rainfall. However, it appears that much of Eta's rainfall could be to the east of its center.

Combining rainfall from Eta and the stalled front, a widespread 6-12" of rain is possible along the East Coast and into South Florida through early next week. Localized areas in South Florida and the Keys could see 15"+ of rain.



# Hazard Outlook

#### From the Weather Prediction Center



A heavy rainfall threat will continue in the Peninsula and along the East Coast into early next week as Eta approaches the region.

www.wpc.ncep.noaa.gov



## Drought Index – Soil Moisture

#### KBDI – Full Report from the FFS

Keetch Byram Drought Index (KBDI) County Averages for November 04, 2020



4 km Resolution KBDI Statewide November 04, 2020



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# Flash Flood Guidance

How Much Rain is Needed to Create Flash Flooding?



South Florida remains very wet from rainfall over the last several months. This area remains very prone to flooding.

It will take about 2-4" of rain within 1 hour or 3-5" of rain within 6 hours to cause flash flooding in these areas.



# Flash Flood Outlooks

#### From the Weather Prediction Center



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

While there is an isolated flash flood risk today in areas that see training heavy showers, the risk is slightly higher both Friday and Saturday across Southeast Florida and the Treasure Coast.



## Flash Flood Risk Categories

### Understanding the Weather Prediction Center Risk Scale

### **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 flooding near me? NO Flash Flooding	2 + 2 + 2	$\{(\lambda, \lambda, \lambda)\}$	(CERTING)	235 <u>(</u> 165)
WEATHER PREDICTION CENTER	Risk of rainfall exceeding flash flood guidance within 25 miles of a point to the right of a line HIGH: > 50% SLGT: 10%-20% MDT: 20%-50% MRGL: 5%-10%			



# **Overall Summary**

\*\*Note: Due to Daylight Saving Time, advisories from the National Hurricane Center are now issued one hour earlier than usual. For example, the next full advisory on Eta will be at 4pm ET/3 PM CT with an intermediate intensity advisory at 1pm ET/12pm CT.\*\*

#### **Tropical Depression Eta**

- The center of Eta is located about 85 miles southwest of La Ceiba, Honduras, moving northwest at 9 mph.
- Maximum sustained winds are near 30 mph, and Eta should remain a tropical depression until it moves into the Caribbean tonight.
- Eta will turn toward the north and northeast on Friday, moving back into the western Caribbean. The remnants will redevelop back into a tropical storm.
- However, the details on the track and intensity will remain uncertain until the system moves back over water Friday.
- Once the storm is near the Florida Straits, Eta may move westward into the eastern Gulf of Mexico.

#### Florida Outlook:

- Prior to any impacts from Eta, locally heavy rainfall in association with a stalled front will be possible across South Florida and the Keys through the end of the week. 1-3" of rain, locally 4-6" will be possible through Saturday.
- As Eta approaches, heavy rainfall will become likely again across South Florida and the Keys. 7-day rainfall totals (including the heavy rain this week) could approach a widespread 6-12" with localized totals of 15"+.
- Additional impacts, such as tornadoes, storm surge, and strong winds, are still uncertain.
- Beyond 5 days, the system may need to be monitored farther north in the state, but this remains highly uncertain.

The next tropics packet will be issued this afternoon with the 4PM ET 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:

# Cameron Young, Assistant State Meteorologist

### Cameron.Young@em.myflorida.com

### State Meteorological Support Unit Florida Division of Emergency Management

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