

TROPICAL UPDATE

FDE



Wednesday, November 4, 2020

Tropical Storm 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 Storm Eta – Central America



 Eta has moved well inland over Central America and is interacting with the
mountainous terrain. The surface circulation is expected to degenerate into a remnant low
over the next day or so, then redevelop in the western Caribbean Friday or Saturday.

Thunderstorms activity is concentrated away from the center over the Caribbean.



Official Forecast Track

From the National Hurricane Center – Tropical Storm Eta



- The center of Eta is located about 100 miles east of Tegucigalpa, Honduras and moving west at 7 mph.
- Maximum sustained winds are near 40 mph, and Eta should become a tropical depression and remnant low overnight.
- Eta will turn toward the north and northeast Thursday and 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 South Florida, Eta may move westward into the eastern Gulf of Mexico.

Key Messages

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From the National Hurricane Center

Key Messages for Tropical Storm Eta Advisory 17: 3:00 PM CST Wed Nov 04, 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 before it moves across portions of Cuba and approaches southern Florida this weekend. While it is too soon to determine the exact timing, magnitude, and location of possible impacts from wind and rainfall, interests in Cuba, southern Florida and the Florida Keys should monitor the progress of Eta through the 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: 16% (+2) Marathon: 19% (+5) Miami: 13% (+6) Ft. Lauderdale: 17% (+6) West Palm Beach: 14% (+5) Naples: 16% (+7) Ft. Myers: 10% (+4) Tampa: 10% *The numbers in parenthesis show the change in probability since the last briefing packet.*

Tropical storm force winds could begin as early as Saturday night in the Keys and South Florida, *but would most likely begin sometime on Sunday.*

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: 12z Nov 04 2020



Forecast Rain Chances

UNRELATED TO TROPICAL STORM ETA*



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

Rainfall Totals Next 3 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 03, 2020



4 km Resolution KBDI Statewide November 03, 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.



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 Storm Eta

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- Eta will turn toward the north and northeast Thursday and 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 South Florida, 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 Thursday morning with the 10AM ET advisory. 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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