THE CARIBBEAN, CENTRAL AMERICA, AND MEXICO
STATE OF THE CLIMATE AND RECENT EVOLUTION

Update prepared by the Climate Prediction Center / NCEP
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OUTLINE

• Highlights
• Recent Evolution and Current Conditions
• NCEP GEFS Forecasts
• Summary
Over the past 7 days

- Below-normal rainfall prevailed in Mexico. The highest negative anomalies were registered in eastern Sonora, western Chihuahua, central Sinaloa, western Jalisco, southern Guerrero, northern Oaxaca, Chiapas, Tabasco, southern Tamaulipas, eastern San Luis Potosi, and Yucatan Peninsula, with rainfall deficits between 50 mm to 100 mm.

- In Central America, above-rainfall conditions, between 50 mm to 100 mm, were observed in central-southern Honduras, central-northern Nicaragua, northern and southern Costa Rica, and central Panama. In these areas, precipitation amounts between 100 mm to 200 mm were recorded.

- Above-normal rainfall conditions were observed in the central-south of Dominican Republic (10-50 mm above the mean). Meanwhile, negative rainfall anomalies were observed in the northern Bahamas, most parts of Cuba and central Haiti (10-50 mm below the mean).

Week-1 and week-2 forecasts

- Week-1 forecast indicates an increased chance for weekly rainfall to exceed 100 mm eastern and southern Nicaragua, most parts of Costa Rica, and many areas in Panama.

- In addition, for week-2, the NCEP GEFS forecast depicts an increased chance for weekly rainfall to exceed 100 mm in eastern and southern Nicaragua, western Costa Rica, and some areas in Panama.
Mexico

Below-normal rainfall conditions prevailed in Mexico. Positive precipitation anomalies over 100 mm were found in northern Coahuila, eastern Sonora, western Chihuahua, Sinaloa, Guerrero, southern Mexico State, Oaxaca, and southern Veracruz. On the contrary, the largest rainfall deficits reached 300-700 mm in northeastern Coahuila, eastern Nuevo Leon, Tamaulipas, Jalisco, northern San Luis Potosi, some areas in Oaxaca, and the Yucatan Peninsula.

Central America

Positive precipitation anomalies of over 200 mm were observed in the Gulf of Honduras, Gulf of Fonseca, central Guatemala, eastern Honduras, many parts of Nicaragua, most part of Costa Rica and north of Panama. Conversely, northern and southern Guatemala, southwestern Honduras, northwestern El Salvador, southern Nicaragua, and north and south of Panama experienced drier than normal conditions (more than 200 mm below the mean).

The Caribbean

Many areas of the Bahamas, central-eastern Cuba, northern Haiti, as well as northern Dominican Republic received above-average rainfall (more than 100 mm above the mean). Conversely, many areas in Cuba and most parts of central Hispaniola observed below-average rainfall, with moisture deficits of over 100 mm.
**Last 90 days**

**Mexico**

Most part of eastern and southern Mexico received less than 80% of normal rainfall (more than 50 mm below the mean). Northeastern Coahuila, eastern Nuevo Leon, Tamaulipas, Veracruz, Jalisco, western Oaxaca, southern Chiapas, and Yucatan Peninsula experienced sustained drier than normal conditions (rainfall deficits over 200 mm). Meanwhile, in northern Coahuila and eastern Oaxaca registered positive precipitation anomalies (more than 200 mm above the mean).

**Central America**

Above-average precipitation (more than 200 mm above the mean) was registered in central Guatemala, Gulf of Honduras, Gulf of Fonseca, eastern Honduras, many areas of Nicaragua, most part of Costa Rica, and northern Panama. On the contrary, rainfall was below-average in northern and southern Guatemala, northeastern El Salvador, western Honduras, southeastern Nicaragua, northern Costa Rica, and central and southern Panama (more than 100 mm below the mean).

**The Caribbean**

Positive rainfall anomalies exceeded 100 mm across the Bahamas, localized areas in central Cuba and central Lesser Antilles. Moreover, many areas of Cuba, and most parts of Hispaniola registered negative precipitation anomalies (more than 100 mm below the mean).
Mexico
Much of Mexico experienced below average rainfall conditions. Above normal rainfall conditions were registered in localized areas in Chihuahua, Sonora, Sinaloa, Nayarit, western Jalisco, Michoacan, Guerrero, and Oaxaca (100 mm above the mean). Meanwhile, rainfall deficits of over 200 mm were found in southern Chiapas and Campeche States.

Central America
Above-normal rainfall conditions were found in central Guatemala, central-eastern and southwestern Nicaragua, and central Costa Rica (more than 100 mm above the mean). These areas received rainfall amounts of 150-750 mm. On the contrary, moisture deficits of 200-300 mm occurred in northern and southwestern Guatemala, and northern and southern Panama.

The Caribbean
Above-normal conditions were observed in the southern Lesser Antilles. In these areas precipitation totals between 100 mm to 300 mm were recorded (50-200 mm above the mean). On the contrary, negative rainfall anomalies were observed in the Bahamas, Cuba, Jamaica, and most parts of Hispaniola (25-300 mm below the mean).
RAINFALL PATTERNS
LAST 7 DAYS

**Mexico**
Below-normal rainfall conditions prevailed in Mexico. Above-rainfall conditions were observed in parts of Chihuahua, Coahuila, Sinaloa, Durango, Jalisco, Zacatecas, San Luis Potosi, Jalisco, Michoacan, Mexico, Guerrero, and Oaxaca States (25-200 mm above the mean). Meanwhile, the highest negative anomalies were registered in eastern Sonora, western Chihuahua, central Sinaloa, western Jalisco, southern Guerrero, northern Oaxaca, Chiapas, Tabasco, southern Tamaulipas, eastern San Luis Potosi, and Yucatan Peninsula, with rainfall deficits between 50 mm to 100 mm.

**Central America**
Above-rainfall conditions, between 50 mm to 100 mm, were observed in central-southern Honduras, central-northern Nicaragua, northern and southern Costa Rica, and central Panama. In these areas, precipitation amounts between 100 mm to 200 mm were recorded. Meanwhile, most parts of Guatemala, El Salvador, western and eastern Honduras, some areas of Nicaragua, northwestern Costa Rica and many areas of Panama registered drier than average conditions (25-100 mm below the mean).

**The Caribbean**
Below-normal rainfall conditions prevailed in the Caribbean. The northern Bahamas, most parts of Cuba, and central Haiti registered negative rainfall anomalies between 25 mm to 50 mm. In contrast, above-normal rainfall conditions were observed in the central-south of Dominican Republic (10-50 mm above the mean).
The 850 hPa circulation pattern featured easterly winds anomalies over northern Central America. These wind anomalies might have contributed to precipitation across Honduras, Nicaragua, and Costa Rica.

The 850 hPa circulation pattern featured westerly winds anomalies over southern Central America. These wind anomalies might have contributed to precipitation in Panama.
(1) Guatemala
Wetter than normal conditions settled in central Guatemala.

(2) Nicaragua
In the last week, above-normal conditions sustained in southeastern Nicaragua.

(3) Dominican Republic
Below-normal conditions were registered in eastern Dominican Republic.
For week-1
• There is an increased chance (probability > 70%) for weekly rainfall to exceed 100 mm in eastern and southern Nicaragua, most parts of Costa Rica, and many areas in Panama.

For week-2
• There is an increased chance (probability > 70%) for weekly rainfall to exceed 100 mm in eastern and southern Nicaragua, western Costa Rica, and some areas in Panama.
SUMMARY

Past rainfall conditions

• During the past 180 days, Mexico continued to experience moisture deficits of over 300 mm in northeastern Coahuila, eastern Nuevo Leon, Tamaulipas, Jalisco, northern San Luis Potosi, some areas in Oaxaca and the Yucatan Peninsula. In Central America, positive precipitation anomalies of over 200 mm were present across the Gulf of Honduras, Gulf of Fonseca, central Guatemala, eastern Honduras, many parts of Nicaragua, most part of Costa Rica and north of Panama. Meanwhile in the Caribbean, the Bahamas, central-eastern Cuba, northern Haiti, and northern Dominican Republic registered enhanced rainfall (more than 100 mm above the mean).

• During the past 90 days, below-average rainfall conditions persisted in most parts of eastern and southern Mexico (moisture deficits of over 50 mm). In Central America, positive precipitation anomalies of 200 mm were found in central Guatemala, Gulf of Honduras, Gulf of Fonseca, eastern Honduras, many areas of Nicaragua, most parts of Costa Rica, and northern Panama. The Bahamas, localized areas in central Cuba, and central Lesser Antilles observed enhanced rainfall, with moisture surpluses of over 100 mm.

• During the past 30 days, in Mexico, Chihuahua, Sonora, Sinaloa, Nayarit, western Jalisco, Michoacan, Guerrero, and Oaxaca observed 100 mm above normal precipitation conditions. In Central America, above-normal conditions were found in central Guatemala, central-eastern and southwestern Nicaragua, and central Costa Rica (more than 100 mm above the mean), while moisture deficits of 200-300 mm occurred in northern and southwestern Guatemala, and northern and southern Panama. Below-normal precipitation conditions prevailed in Bahamas, Cuba, Jamaica, and most parts of Hispaniola (50-300 mm below the mean).

• During the past 7 days, in Mexico, the highest negative anomalies were registered in eastern Sonora, western Chihuahua, central Sinaloa, western Jalisco, southern Guerrero, northern Oaxaca, Chiapas, Tabasco, southern Tamaulipas, eastern San Luis Potosi, and Yucatan Peninsula, with rainfall deficits between 50 mm to 100 mm. In Central America, central-southern Honduras, central-northern Nicaragua, northern and southern Costa Rica, and central Panama registered positive rainfall amounts between 50 to 100 mm. In the Caribbean, northern Bahamas, most parts of Cuba and central Haiti showed below average conditions (25-50 mm above the mean).

Week-1 and week-2 forecasts

• There is an increased chance (probability > 70%) for weekly rainfall to exceed 100 mm eastern and southern Nicaragua, most parts of Costa Rica, and many areas in Panama.

• There is an increased chance (probability > 70%) for weekly rainfall to exceed 100 mm in eastern and southern Nicaragua, western Costa Rica, and some areas in Panama.
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