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

Update prepared by the Climate Prediction Center / NCEP

7 July 2025

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http://usregionalclimatecenter.noaa.gov/

OUTLINE

- Highlights
- Recent Evolution and Current Conditions
- NCEP GEFS Forecasts
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HIGHLIGHTS

Over the past 7 days

- In Mexico, rainfall totals ranged from <2 mm to >750 mm across Mexico, with the highest totals recorded in southern Tamaulipas. However, little to no rainfall was observed in the Baja Peninsula, Campeche, northern Chihuahua, eastern Coahuila, southern Nuevo León, Quintana Roo, Sonora and Yucatan. Negative anomalies exceeding 50 mm below normal occurred in parts of southwest Campeche, Oaxaca, northeast Puebla, southwest Tabasco, and Veracruz. In contrast, positive rainfall anomalies (exceeding 500mm above normal) were observed in parts of Tamaulipas.

- In Central America, south-central Nicaragua and the south Caribbean region of Nicaragua received the highest rainfall (>200 mm). In contrast, relatively dry conditions were recorded in northern Guatemala, the central highlands of Guatemala, Belize, parts of Honduras and central Nicaragua. Negative anomalies between 50-100mm below normal were recorded in southern Belize, the south Caribbean region of Nicaragua and the west Pacific region of Panamá. In contrast, in parts of northern Guatemala, south-central Nicaragua and the south Caribbean region of Nicaragua, positive rainfall anomalies (>100 mm above normal) were observed.

- In the Caribbean, rainfall totals ranged from <2 mm to >100 mm across Caribbean, with the highest totals recorded in the northwest Bahamas. Meanwhile, little to no rainfall was observed in the remainder of the Bahamas, many of the Lesser Antilles, Cuba, Haiti, the Dominican Republic and Jamaica. Negative anomalies more than 25 mm below normal were observed in the Lesser Antilles, the western Bahamas, Cuba and Haiti. However, in parts of the northwest Bahamas, positive rainfall anomalies (>100 mm above normal) were observed.

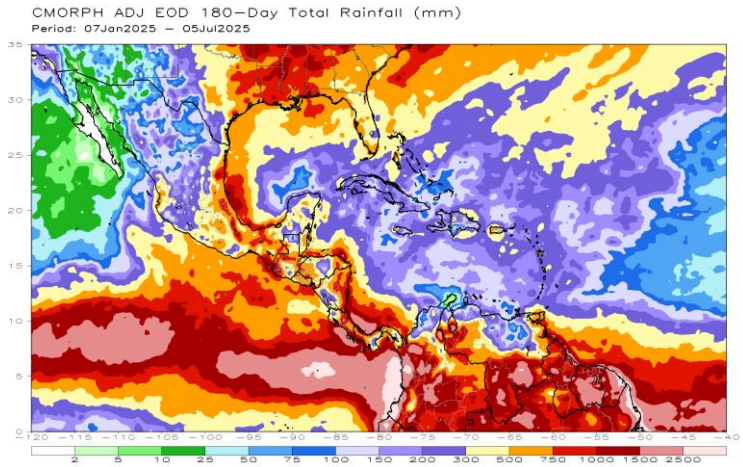
Forecasts for weeks 1 and 2

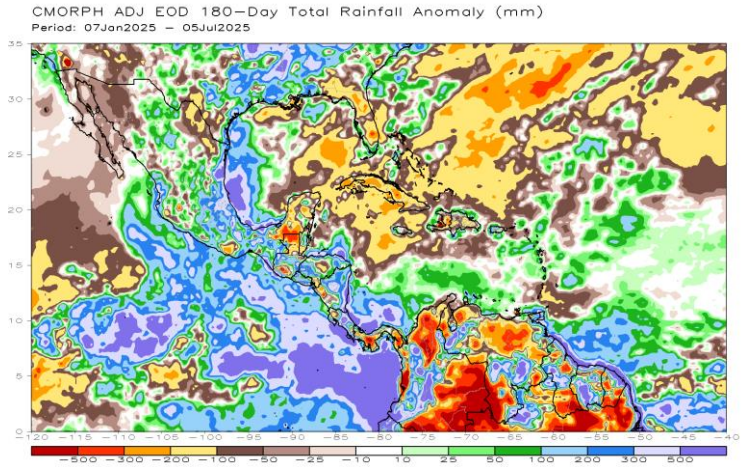
- Week 1: There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Chiapas, Chihuahua, Colima, Distrito Federal, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, México, Michoacán, Morelos, Nayarit, Oaxaca, Puebla, Querétaro, San Luis Potosí, Sinaloa, Sonora, Tlaxcala, Veracruz, and Zacatecas. In Central America, 50 mm rainfall probability exceeds 70% in eastern Honduras, eastern Nicaragua, Costa Rica, and Panamá.

- Week 2: There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Chiapas, Chihuahua, Durango, Guanajuato, Guerrero, Jalisco, México, Michoacán, Morelos, Nayarit, Oaxaca, Sinaloa, Sonora, Veracruz, and Zacatecas. In Central America, 50 mm rainfall probability exceeds 70% in central Guatemala, eastern/western Honduras, eastern Nicaragua, Costa Rica, and Panamá.

RAINFALL PATTERNS
LAST 180 DAYS

Last 180 days





Mexico

For the last 180 days, rainfall totals ranged from <2 mm to >1000 mm across Mexico, with the highest totals recorded in southern Chiapas, northern Oaxaca, Puebla, northwest Tabasco, southern Tamaulipas and Veracruz. In contrast, little to no rainfall was observed in the central and southern Baja Peninsula and southwest Sonora. Negative anomalies between 300-500mm below normal were recorded in southern Campeche, northeast Chiapas, southeast Jalisco and eastern Tabasco. However, in parts of northern Tabasco, Tamaulipas and Veracruz, positive rainfall anomalies (exceeding 500mm above normal) were observed.

Central America

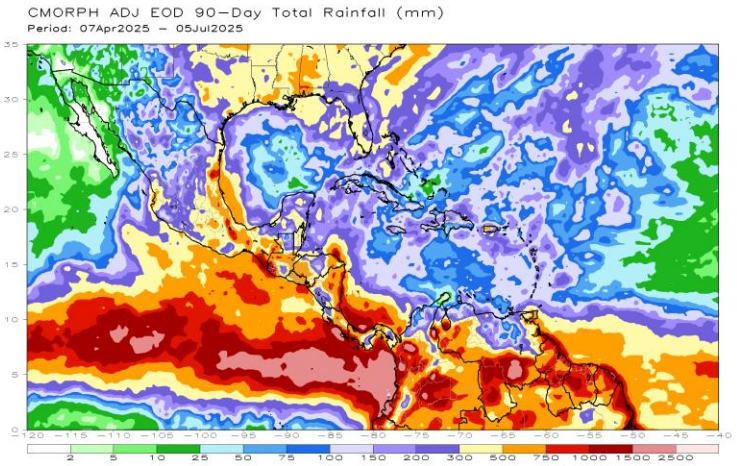
In the past 180 days, some places in the central valley of Costa Rica and the south Pacific region of Costa Rica observed the largest rainfall totals (>1500 mm). However, the lowest values were recorded in northern Guatemala and central Honduras. Negative anomalies exceeding 500mm below normal were recorded in the Guatemalan highlands, the west Caribbean and the west Pacific regions of Panamá. In contrast, positive rainfall anomalies (exceeding 500mm above normal) were registered in the Pacific lowlands of Guatemala, northeast Honduras, eastern Nicaragua, and much of Costa Rica.

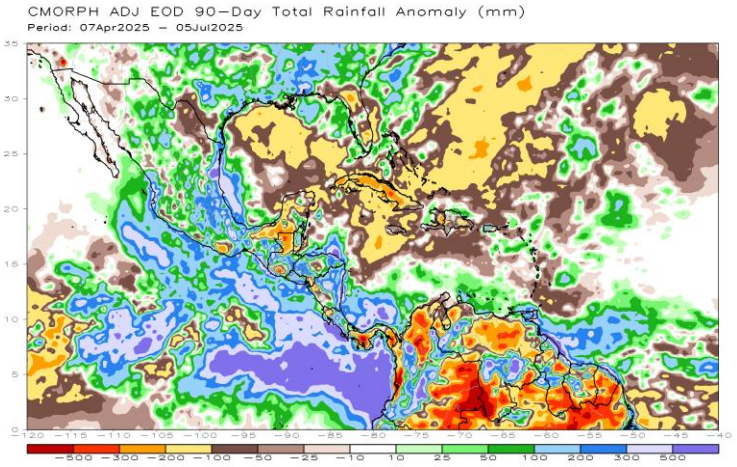
The Caribbean

In the past 180 days, some places in the Bahamas and Trinidad and Tobago observed the largest rainfall totals (exceeding 500 mm). However, the southwest Dominican Republic received the lowest values (up to 25-50mm). Negative anomalies more than 300 mm below normal were observed in southeast Cuba and eastern Haiti. However, in parts of Trinidad and Tobago, positive rainfall anomalies (>300 mm above normal) were observed.

RAINFALL PATTERNS
LAST 90 DAYS

Last 90 days





Mexico

For the last 90 days, the largest rainfall totals have been reported in southern Chiapas, northern Oaxaca and southern Tamaulipas. In contrast, little to no rainfall was observed in many parts of the Baja Peninsula and western Sonora. The largest negative anomalies more than 300 mm below normal were observed in southwest Campeche. In contrast, in parts of northeast Oaxaca and Tamaulipas, positive rainfall anomalies (exceeding 500mm above normal) were observed.

Central America

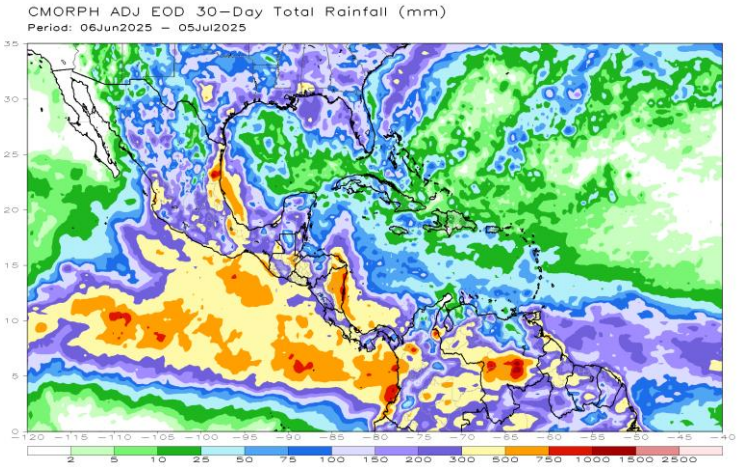
In the past 90 days, the largest rainfall totals have been reported in the south Pacific region of Costa Rica. Meanwhile, northern Guatemala received the lowest values (50-75mm in some locations). Negative anomalies (exceeding 500mm below normal) occurred in parts of the west Caribbean and the west Pacific regions of Panamá. In contrast, positive rainfall anomalies (exceeding 500mm above normal) were registered in northeast Honduras, the south Caribbean region of Nicaragua, and the south Pacific region of Costa Rica.

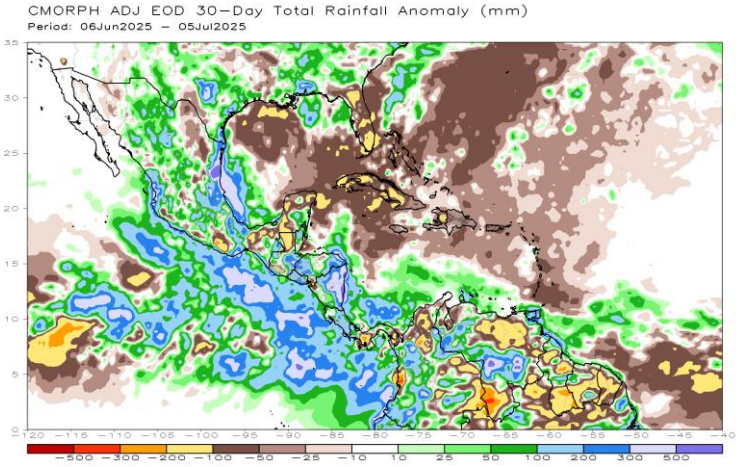
The Caribbean

In the past 90 days, Trinidad and Tobago, central portions of the lesser Antilles, western Honduras, and the western Bahamas received the highest rainfall (exceeding 300 mm). Meanwhile, relatively dry conditions were recorded in the southeast Bahamas. Negative anomalies more than 200 mm below normal were observed in Cuba and central Haiti. In contrast, in parts of Trinidad and Tobago, positive rainfall anomalies (>300 mm above normal) were observed.

RAINFALL PATTERNS
LAST 30 DAYS

Last 30 days





Mexico

In the past 30 days, rainfall totals ranged from <2 mm to >1000 mm across Mexico, with the highest totals recorded in southern Tamaulipas. Meanwhile, relatively dry conditions were recorded in the Baja Peninsula and Sonora. Negative anomalies between 100-300mm below normal were recorded in southern Mexico states. In contrast, in parts of Tamaulipas, the largest positive rainfall anomalies (exceeding 500mm above normal) were observed.

Central America

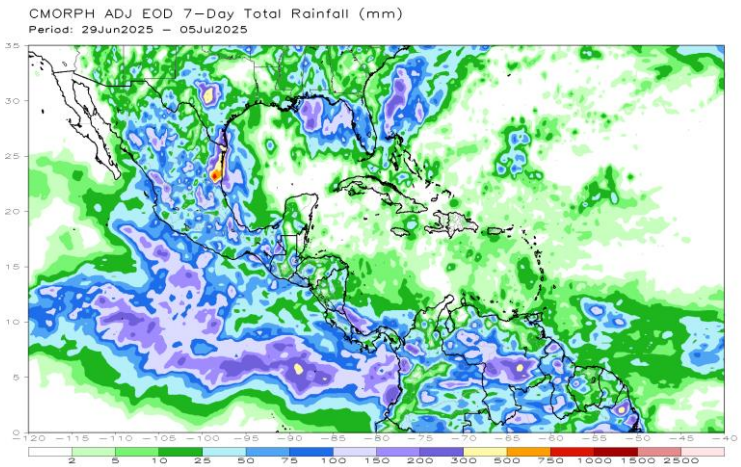
In the past 30 days, some places in the Caribbean regions of Nicaragua observed the largest rainfall totals (>500 mm). However, northern Guatemala received the lowest values (25-50mm in some locations). The largest negative anomalies between 200-300mm below normal were recorded in the west Caribbean region of Panamá and the west Pacific region of Panamá. However, positive rainfall anomalies (exceeding 500mm above normal) were registered in and along the Caribbean coast of Nicaragua.

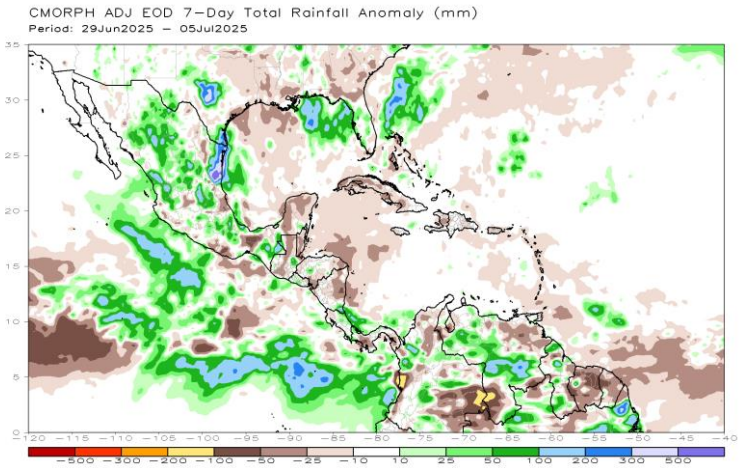
The Caribbean

Over the last 30 days, Trinidad and Tobago received the highest rainfall (>300 mm). However, little to no rainfall was observed in the eastern Bahamas and the southern and northern Dominican Republic. Negative anomalies between 100-200mm below normal were recorded in parts of the Bahamas, Cuba, and Haiti. However, in parts of Trinidad and Tobago, and the ABC islands, positive rainfall anomalies (>100 mm above normal) were observed.

RAINFALL PATTERNS
LAST 7 DAYS

Last 7 days





Mexico

Over the last 7 days, rainfall totals ranged from <2 mm to >750 mm across Mexico, with the highest totals recorded in southern Tamaulipas. However, little to no rainfall was observed in the Baja Peninsula, Campeche, northern Chihuahua, eastern Coahuila, southern Nuevo León, Quintana Roo, Sonora and Yucatan. Negative anomalies exceeding 50 mm below normal occurred in parts of southwest Campeche, Oaxaca, northeast Puebla, southwest Tabasco, and Veracruz. In contrast, positive rainfall anomalies (exceeding 500mm above normal) were observed in parts of Tamaulipas.

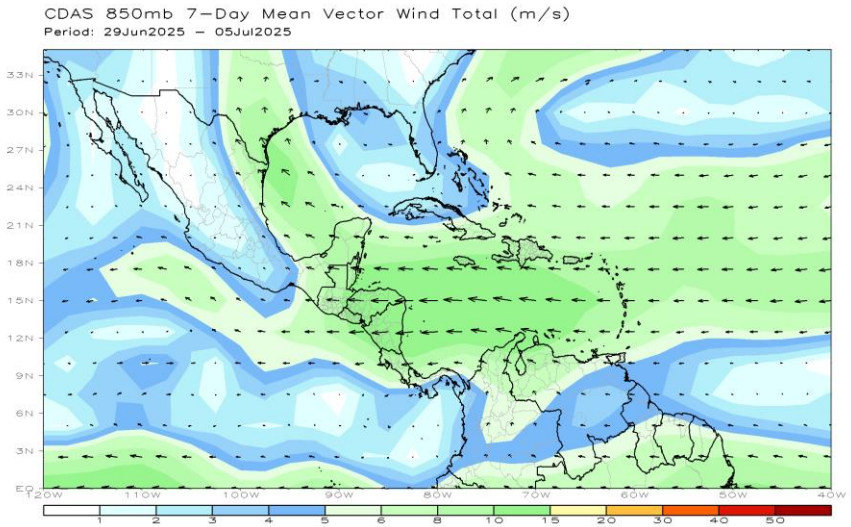
Central America

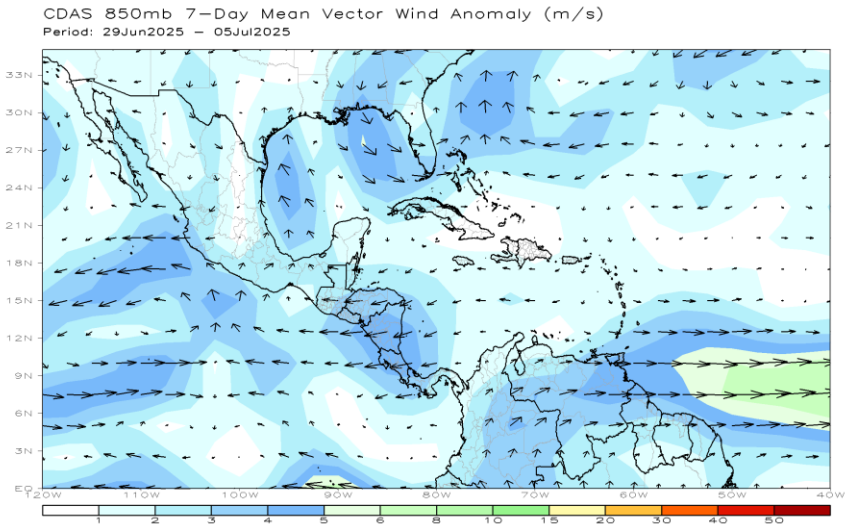
Over the last 7 days, south-central Nicaragua and the south Caribbean region of Nicaragua received the highest rainfall (>200 mm). In contrast, relatively dry conditions were recorded in northern Guatemala, the central highlands of Guatemala, Belize, parts of Honduras and central Nicaragua. Negative anomalies between 50-100mm below normal were recorded in southern Belize, the south Caribbean region of Nicaragua and the west Pacific region of Panamá. In contrast, in parts of northern Guatemala, south-central Nicaragua and the south Caribbean region of Nicaragua, positive rainfall anomalies (>100 mm above normal) were observed.

The Caribbean

Over the last 7 days, rainfall totals ranged from <2 mm to >100 mm across Caribbean, with the highest totals recorded in the northwest Bahamas. Meanwhile, little to no rainfall was observed in the remainder of the Bahamas, many of the Lesser Antilles, Cuba, Haiti, the Dominican Republic and Jamaica. Negative anomalies more than 25 mm below normal were observed in the Lesser Antilles, the western Bahamas, Cuba and Haiti. However, in parts of the northwest Bahamas, positive rainfall anomalies (>100 mm above normal) were observed.

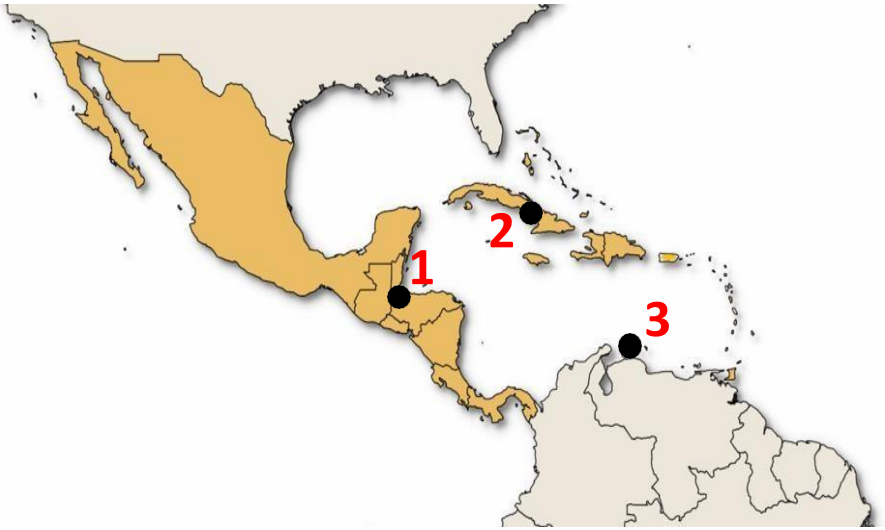
ATMOSPHERIC CIRCULATION
LAST 7 DAYS





During the past week, at 850 mb, anomalous easterly flow persisted over Central America. Conversely westerly anomalies and decreased easterly flow to parts of the Lesser Antilles. Anomalous southerly flow was also present over southern Mexico and the western Gulf of America. This helped enhance rainfall across many parts of Mexico. An anomalous cyclonic trough was present over Florida and parts of the Bahamas.

Recent Rainfall Evolution



(1) Puerto Barrios (Guatemala)

Persistent heavy rains during June has eliminated what had been significant deficits been building seasonal surpluses in eastern Guatemala.

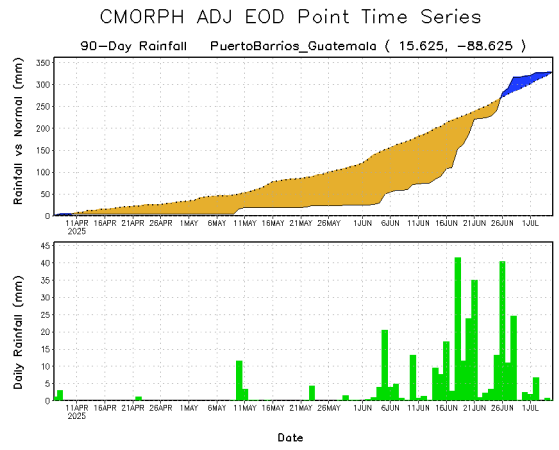
(2) Camaguey (Cuba)

Light and inconsistent rainfall over the past 90 days has built large rainfall defects in central Cuba amounting to around 1 quarter the periods average rainfall.

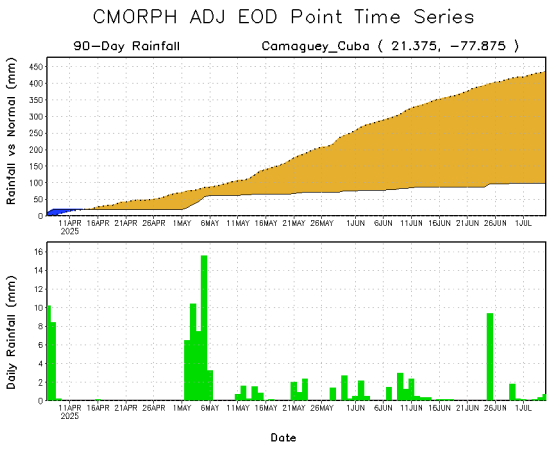
(3) Oranjestad (Aruba)

Persistent very heavy rainfall since 10 June has resulted in very large 90-day surpluses that a several times the period's average rainfall.

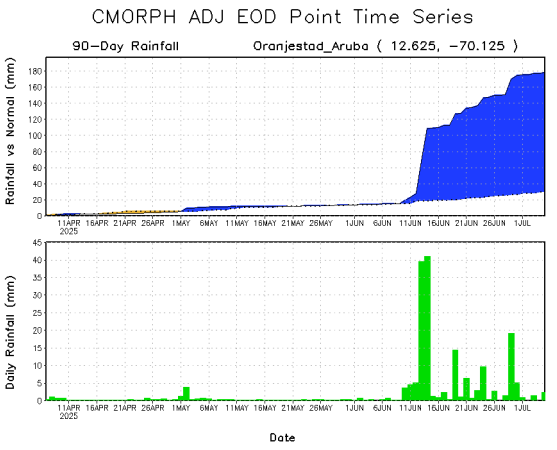
(1)



(2)

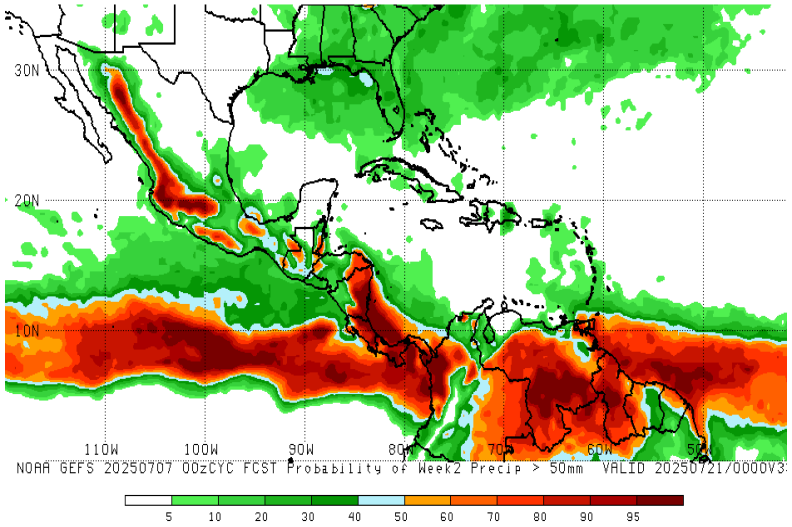


(3)

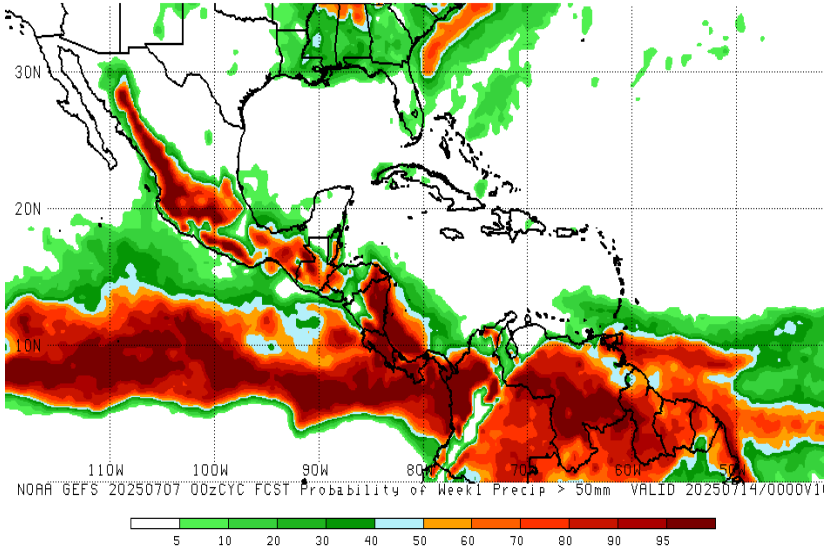


PROBABILITY FORECASTS OF PRECIPITATION (Rainfall > 50 mm)

Week-1 forecast
Valid period: 8 - 14 July 2025



Week-2 forecast
Valid period: 15 - 21 July 2025



For week-1

- There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Chiapas, Chihuahua, Colima, Distrito Federal, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, México, Michoacán, Morelos, Nayarit, Oaxaca, Puebla, Querétaro, San Luis Potosí, Sinaloa, Sonora, Tlaxcala, Veracruz, and Zacatecas. In Central America, 50 mm rainfall probability exceeds 70% in eastern Honduras, eastern Nicaragua, Costa Rica, and Panamá.

For week-2

- There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Chiapas, Chihuahua, Durango, Guanajuato, Guerrero, Jalisco, México, Michoacán, Morelos, Nayarit, Oaxaca, Sinaloa, Sonora, Veracruz, and Zacatecas. In Central America, 50 mm rainfall probability exceeds 70% in central Guatemala, eastern/western Honduras, eastern Nicaragua, Costa Rica, and Panamá.

SUMMARY

Past rainfall conditions

- For the past 180 days, in Mexico, in parts of northern Tabasco, Tamaulipas and Veracruz, positive rainfall anomalies (exceeding 500mm above normal) were observed. In Central America, positive rainfall anomalies (exceeding 500mm above normal) were registered in the Pacific lowlands of Guatemala, northeast Honduras, eastern Nicaragua, and much of Costa Rica. In the Caribbean, negative anomalies more than 300 mm below normal were observed in southeast Cuba and eastern Haiti.

- For the past 90 days, in Mexico, The largest negative anomalies more than 300 mm below normal were observed in southwest Campeche. In Central America, positive rainfall anomalies (exceeding 500mm above normal) were registered in northeast Honduras, the south Caribbean region of Nicaragua, and the south Pacific region of Costa Rica. In the Caribbean, positive rainfall anomalies (>300 mm above normal) were observed in parts of Trinidad and Tobago.

- For the past 30 days, in Mexico, negative anomalies between 100-300mm below normal were recorded in southern Mexico states. In contrast, in parts of Tamaulipas, the largest positive rainfall anomalies (exceeding 500mm above normal) were observed. In Central America, positive rainfall anomalies (exceeding 500mm above normal) were registered in and along the Caribbean coast of Nicaragua. In the Caribbean, negative anomalies between 100-200mm below normal were recorded in parts of the Bahamas, Cuba, and Haiti.

- For the past week, in Mexico, rainfall totals ranged from <2 mm to >750 mm across Mexico, with the highest totals recorded in southern Tamaulipas. In Central America, south-central Nicaragua and the south Caribbean region of Nicaragua received the highest rainfall (>200 mm), while relatively dry conditions were recorded in northern Guatemala, the central highlands of Guatemala, Belize, parts of Honduras and central Nicaragua. In the Caribbean rainfall totals ranged from <2 mm to >100 mm, with the highest totals recorded in the northwest Bahamas. Meanwhile, little to no rainfall was observed in many other places

Week-1 and week-2 forecasts

- Week 1: There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Chiapas, Chihuahua, Colima, Distrito Federal, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, México, Michoacán, Morelos, Nayarit, Oaxaca, Puebla, Querétaro, San Luis Potosí, Sinaloa, Sonora, Tlaxcala, Veracruz, and Zacatecas. In Central America, 50 mm rainfall probability exceeds 70% in eastern Honduras, eastern Nicaragua, Costa Rica, and Panamá.

- Week 2: There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Chiapas, Chihuahua, Durango, Guanajuato, Guerrero, Jalisco, México, Michoacán, Morelos, Nayarit, Oaxaca, Sinaloa, Sonora, Veracruz, and Zacatecas. In Central America, 50 mm rainfall probability exceeds 70% in central Guatemala, eastern/western Honduras, eastern Nicaragua, Costa Rica, and Panamá.

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