



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

Update prepared by the Climate Prediction Center / NCEP

5 May 2025

**For more information, please visit:
<http://usregionalclimatecenter.noaa.gov/>**



OUTLINE

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



HIGHLIGHTS

Over the past 7 days

- In Mexico, the largest rainfall totals have been reported in northeast Oaxaca. Negative anomalies (>25 mm below normal) occurred in parts of eastern Campeche, western Chiapas, Quintana Roo, southwest Tabasco and southeast Yucatan. Meanwhile, positive rainfall anomalies (>200 mm above normal) were registered in northeast Oaxaca.
- In Central America, the south Pacific region of Costa Rica received the highest rainfall (>200 mm). Negative anomalies (exceeding 50 mm below normal) occurred in parts of the western highlands of Guatemala and the west Pacific region of Panamá. In contrast, in parts of the south Pacific region of Costa Rica, positive rainfall anomalies (>200 mm above normal) were observed.
- In the Caribbean, the Dominican Republic received the highest rainfall (exceeding 50 mm). Negative anomalies (>25 mm below normal) occurred in parts of the Bahamas and Cuba. In contrast, positive rainfall anomalies (exceeding 50 mm above normal) were registered in the Dominican Republic.

Forecasts for weeks 1 and 2

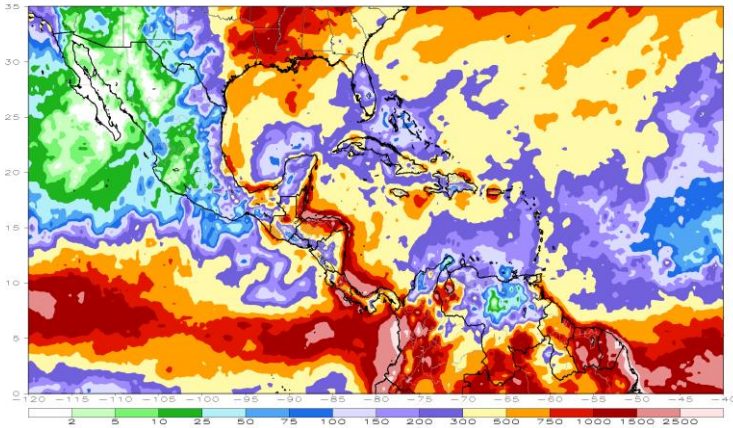
- Week 1: There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over México, Morelos, and Puebla. In Central America, 50 mm rainfall probability exceeds 70% in Nicaragua, Costa Rica, and Panamá. In the Caribbean, rainfall will likely be above 75 mm over Lesser Antilles.
- Week 2: There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Guatemala, Honduras, Nicaragua, Costa Rica, and Panamá.



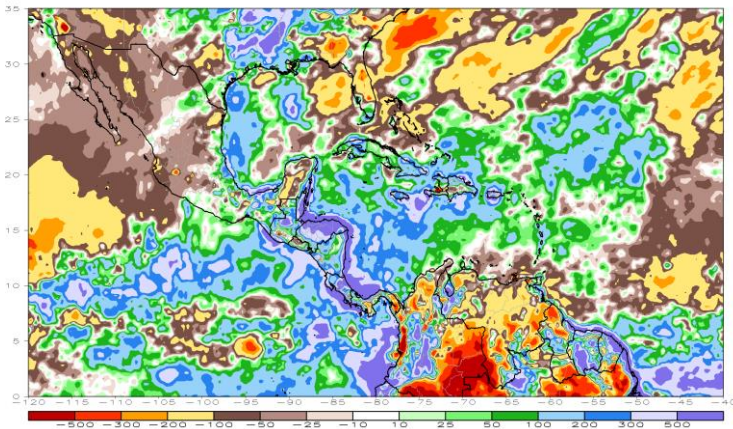
RAINFALL PATTERNS LAST 180 DAYS

Last 180 days

CMORPH ADJ EOD 180-Day Total Rainfall (mm)
Period: 06Nov2024 - 04May2025



CMORPH ADJ EOD 180-Day Total Rainfall Anomaly (mm)
Period: 06Nov2024 - 04May2025



Mexico

For the last 180 days, southeast Quintana Roo received the highest rainfall (>1000 mm). In contrast, relatively dry conditions were recorded in the Baja Peninsula, Chihuahua, northwest Coahuila, Colima, northern Durango, eastern Jalisco, western Sinaloa and Sonora. Negative anomalies between 300-500mm below normal were recorded in southeast Jalisco. However, positive rainfall anomalies (exceeding 500 mm above normal) were registered in southern Quintana Roo, northern Tabasco and southeast Veracruz.

Central America

In the past 180 days, rainfall totals ranged from 50 to >1500 mm across Central America, with the highest totals recorded in northern Honduras, much of Costa Rica and central Panamá. Meanwhile, the eastern valley of Guatemala and central El Salvador experienced the driest conditions (50-75mm). Negative anomalies exceeding 500 mm below normal were recorded in the western highlands of Guatemala. In contrast, in parts of Guatemala, Belize, Honduras, Nicaragua, much of Costa Rica and many places across Panama, positive rainfall anomalies (exceeding 500 mm above normal) were observed.

The Caribbean

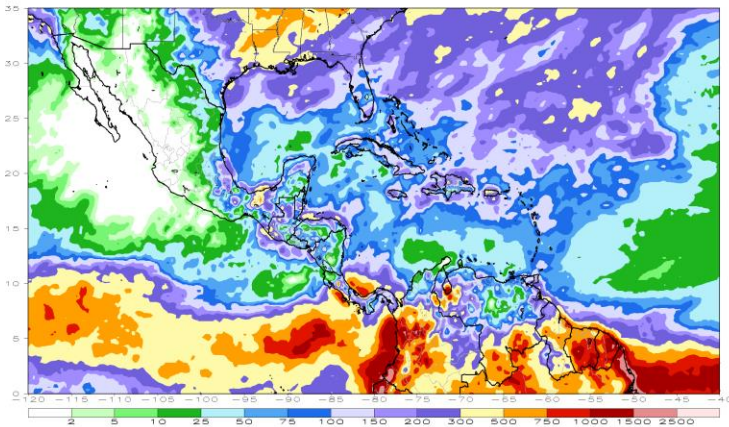
Over the last 180 days, some places in the southern Bahamas, Cuba, southwest Haiti, the northern Dominican Republic, Jamaica and Trinidad and Tobago observed the largest rainfall totals (exceeding 500 mm). However, the southwest Dominican Republic experienced the driest conditions (50-75 mm). Negative anomalies more than 100 mm below normal were observed in the Bahamas and southern Haiti. In contrast, in parts of southwest Haiti, positive rainfall anomalies (exceeding 500mm above normal) were observed.



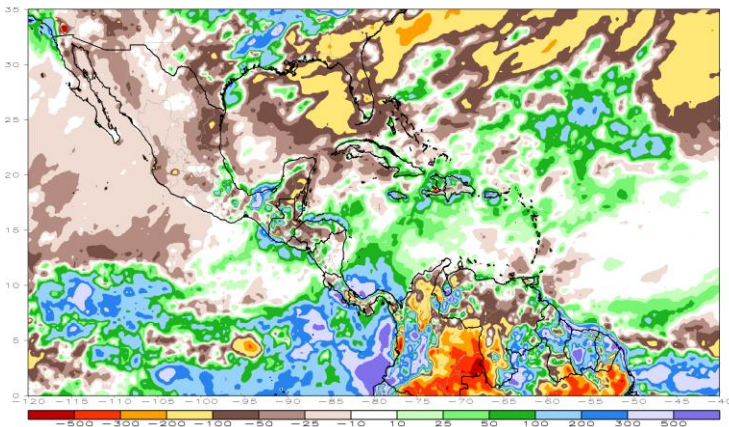
RAINFALL PATTERNS LAST 90 DAYS

Last 90 days

CMORPH ADJ EOD 90-Day Total Rainfall (mm)
Period: 04Feb2025 - 04May2025



CMORPH ADJ EOD 90-Day Total Rainfall Anomaly (mm)
Period: 04Feb2025 - 04May2025



Mexico

For the last 90 days, rainfall totals ranged from <2 mm to exceeding 500 mm across Mexico, with the highest totals recorded in northwest Chiapas. Meanwhile, relatively dry conditions were observed in much of the country. Negative anomalies (>100 mm below normal) occurred in parts of southern Campeche, southern Jalisco, northern Michoacán, northwest Oaxaca, Quintana Roo, southeast Tabasco and Tamaulipas. In contrast, in parts of northwest Chiapas, northeast Oaxaca, Tabasco and southeast Veracruz, positive rainfall anomalies (>300 mm above normal) were observed.

Central America

In the past 90 days, some places in the south Pacific region of Costa Rica observed the largest rainfall totals (>750 mm). Meanwhile, relatively dry conditions were recorded in southeast Honduras, central Nicaragua, the south Caribbean region of Nicaragua and the north Pacific region of Costa Rica. Negative anomalies between 300-500mm below normal were recorded in the western highlands of Guatemala. However, in parts of the central valley of Costa Rica and the south Pacific region of Costa Rica, positive rainfall anomalies (exceeding 500 mm above normal) were observed.

The Caribbean

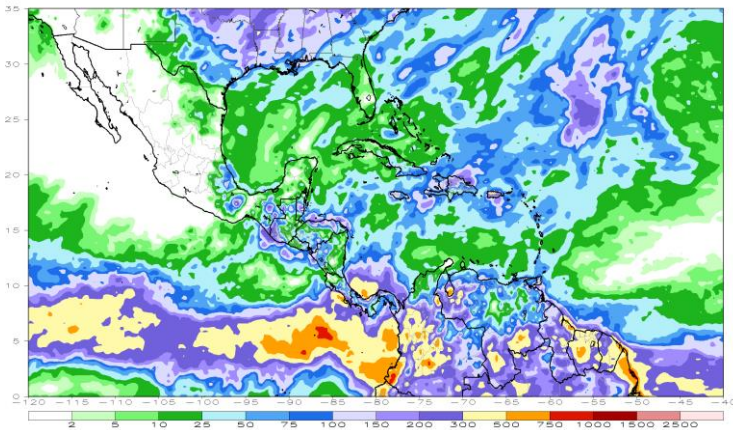
For the last 90 days, some places in the northern Bahamas observed the largest rainfall totals (>300 mm). Meanwhile, western Aruba, Bonaire, and Curacao experienced the driest conditions (10-25mm). Negative anomalies (>100 mm below normal) occurred in parts of the northwest Bahamas. In contrast, in parts of the Bahamas, Haiti, the Dominican Republic and Jamaica, positive rainfall anomalies (>100 mm above normal) were observed.



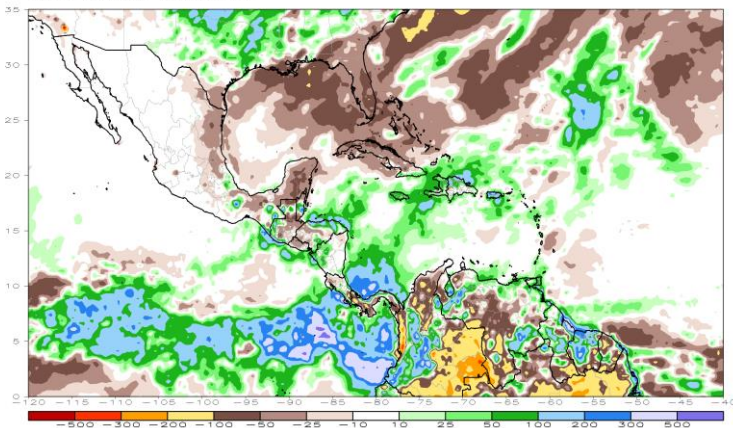
RAINFALL PATTERNS LAST 30 DAYS

Last 30 days

CMORPH ADJ EOD 30-Day Total Rainfall (mm)
Period: 05Apr2025 - 04May2025



CMORPH ADJ EOD 30-Day Total Rainfall Anomaly (mm)
Period: 05Apr2025 - 04May2025



Mexico

In the past 30 days, rainfall totals ranged from <2 mm to >300 mm across Mexico, with the highest totals recorded in northeast Oaxaca. In contrast, much of the country remained dry. Negative anomalies between 50-100mm below normal were recorded in Campeche, Chiapas, southeast Jalisco, Quintana Roo, southwest Tabasco, northwest Tamaulipas and Yucatan. In contrast, positive rainfall anomalies (>200 mm above normal) were registered in southeast Chiapas and northeast Oaxaca.

Central America

In the past 30 days, some places in the south Pacific region of Costa Rica observed the largest rainfall totals (exceeding 500 mm). Meanwhile, relatively dry conditions were recorded in northern Guatemala, northeast Belize, southeast Honduras, central Nicaragua, the south Caribbean region of Nicaragua, northern Costa Rica and the north Pacific region of Costa Rica. Negative anomalies (>100 mm below normal) occurred in parts of the south Pacific region of Costa Rica and the west Pacific region of Panamá. However, positive rainfall anomalies (>300 mm above normal) were registered in the south Pacific region of Costa Rica.

The Caribbean

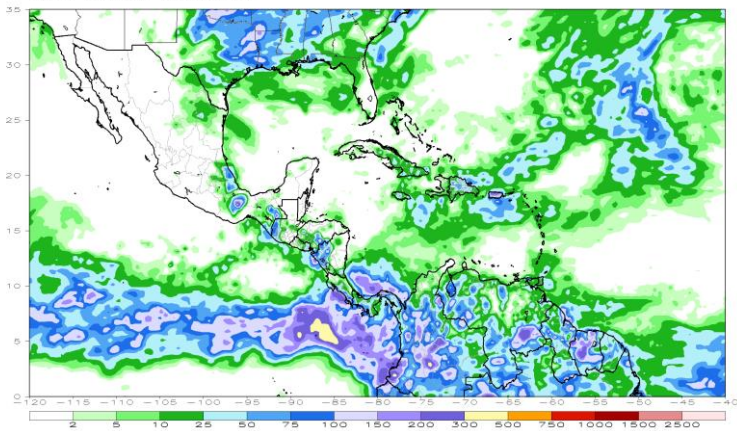
For the last 30 days, the largest rainfall totals have been reported in the northern Dominican Republic. In contrast, little to no rainfall was observed in the southern Bahamas and Cuba. Negative anomalies between 50-100mm below normal were recorded in the Bahamas and Cuba. Meanwhile, in parts of Haiti and the northern Dominican Republic, positive rainfall anomalies (>100 mm above normal) were observed.



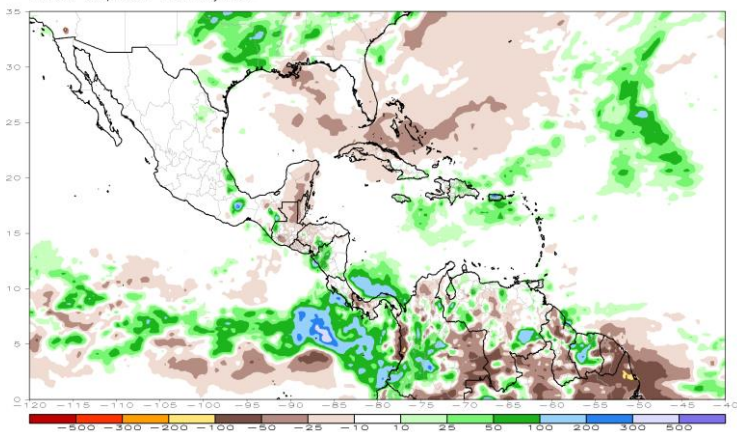
RAINFALL PATTERNS LAST 7 DAYS

Last 7 days

CMORPH ADJ EOD 7-Day Total Rainfall (mm)
Period: 28Apr2025 - 04May2025



CMORPH ADJ EOD 7-Day Total Rainfall Anomaly (mm)
Period: 28Apr2025 - 04May2025



Mexico

Over the last 7 days, the largest rainfall totals have been reported in northeast Oaxaca. However, relatively dry conditions were observed in much of the country. Negative anomalies (>25 mm below normal) occurred in parts of eastern Campeche, western Chiapas, Quintana Roo, southwest Tabasco and southeast Yucatan. Meanwhile, positive rainfall anomalies (>200 mm above normal) were registered in northeast Oaxaca.

Central America

For the last 7 days, the south Pacific region of Costa Rica received the highest rainfall (>200 mm). Meanwhile, little to no rainfall was observed in Guatemala, Belize, western El Salvador, Honduras, Nicaragua and much of Costa Rica. Negative anomalies (exceeding 50 mm below normal) occurred in parts of the western highlands of Guatemala and the west Pacific region of Panamá. In contrast, in parts of the south Pacific region of Costa Rica, positive rainfall anomalies (>200 mm above normal) were observed.

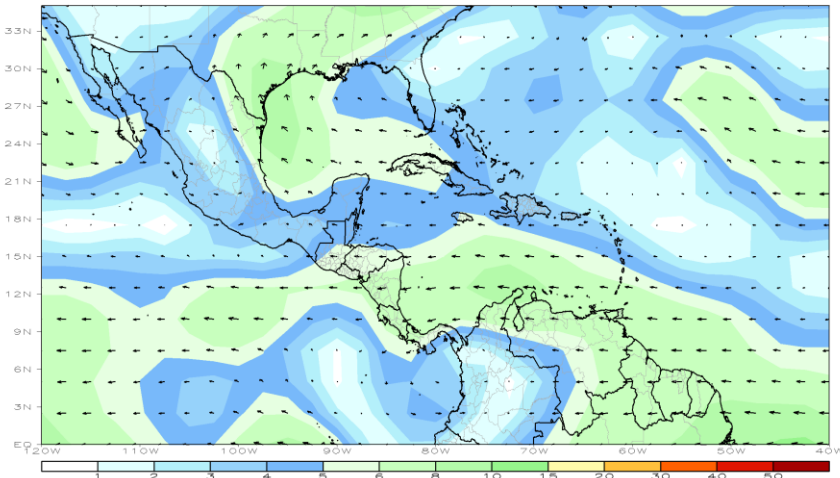
The Caribbean

In the past 7 days, the Dominican Republic received the highest rainfall (exceeding 50 mm). Meanwhile, little to no rainfall was observed in the Lesser Antilles, Aruba, Bonaire, and Curacao, the Bahamas, Cuba and northern Haiti. Negative anomalies (>25 mm below normal) occurred in parts of the Bahamas and Cuba. In contrast, positive rainfall anomalies (exceeding 50 mm above normal) were registered in the Dominican Republic.

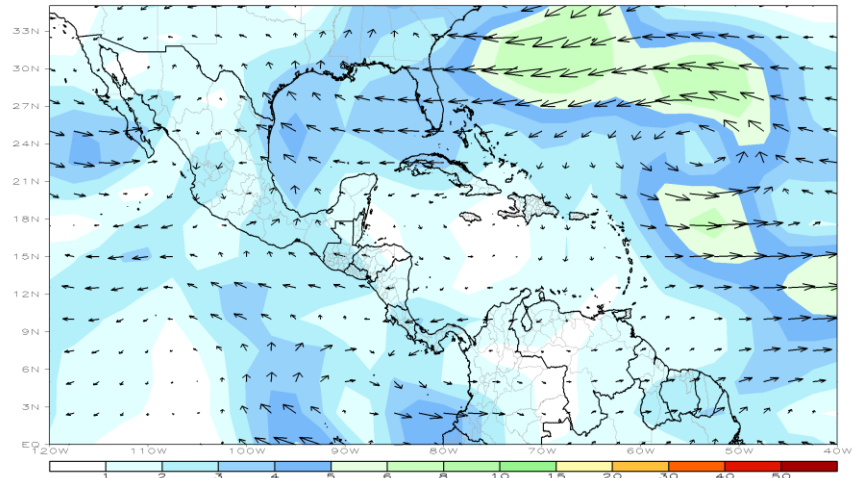


ATMOSPHERIC CIRCULATION LAST 7 DAYS

CDAS 850mb 7-Day Mean Vector Wind Total (m/s)
Period: 28Apr2025 - 04May2025

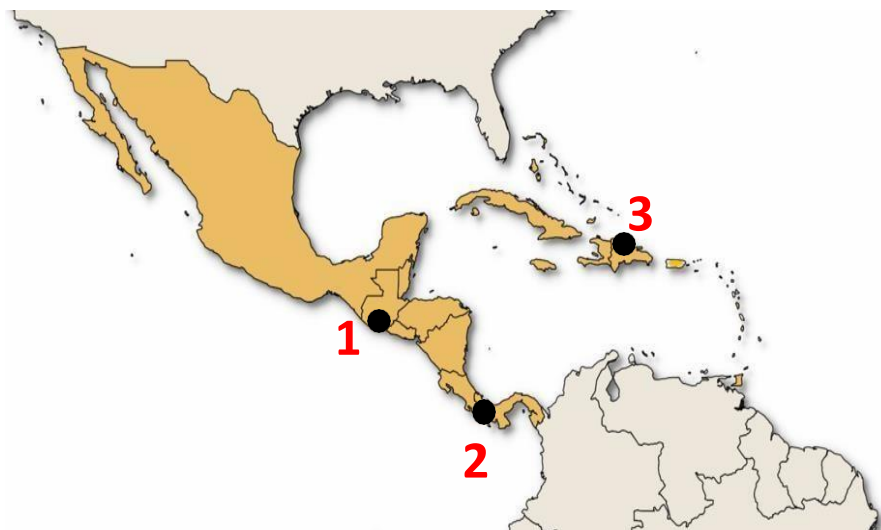


CDAS 850mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 28Apr2025 - 04May2025



During the past week, in Mexico at 850 mb, easterly winds anomalies were observed in northeastern Mexico, while westerly winds anomalies were observed in northwestern Mexico. Most of Central America observed easterly anomalies; however, southwestern and central Guatemala observed southerly wind anomalies. Meanwhile, easterly anomalies dominated the northern Caribbean, while westerly wind anomalies prevailed in the Lesser Antilles.

Recent Rainfall Evolution



(1) San Jose (Guatemala)

Heavy rainfall at the beginning of April brought positive anomalies in southern Guatemala.

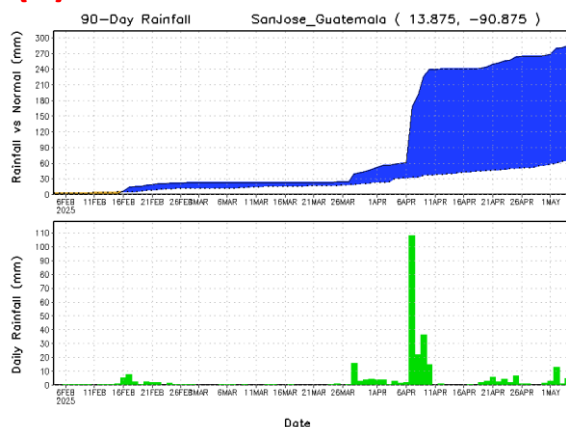
(2) David (Panama)

Rainfall events over the last 90 days have maintained the seasonal above-average rainfall conditions in David.

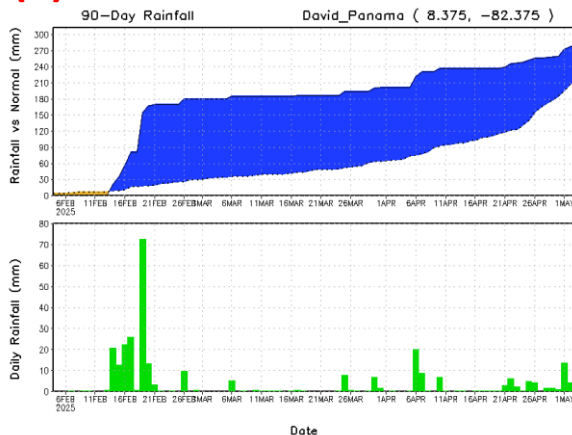
(3) Puerto Plata (Dominican Republic)

Consistent rain has helped to maintain favorable anomaly conditions in the northern Dominican Republic.

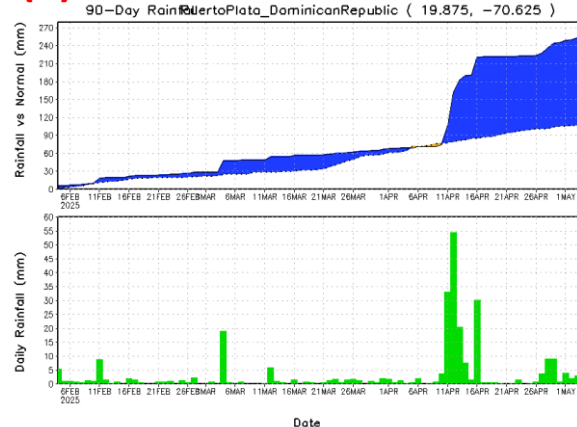
(1) CMORPH ADJ EOD Point Time Series



(2) CMORPH ADJ EOD Point Time Series



(3) CMORPH ADJ EOD Point Time Series

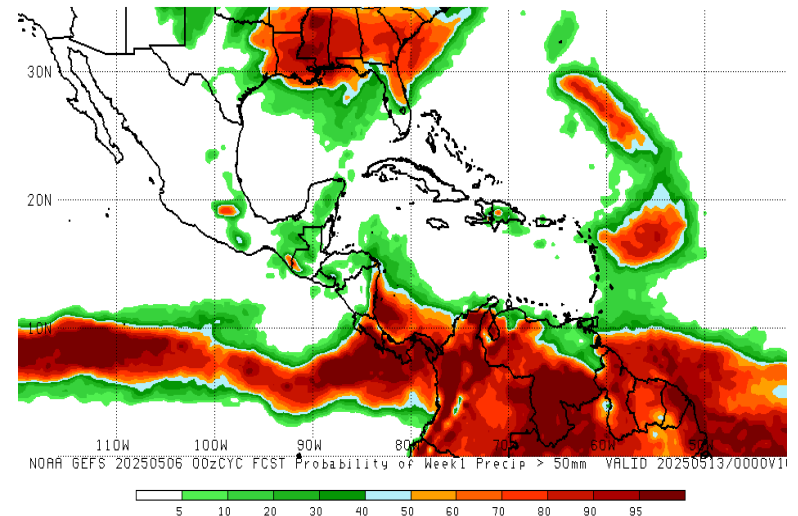
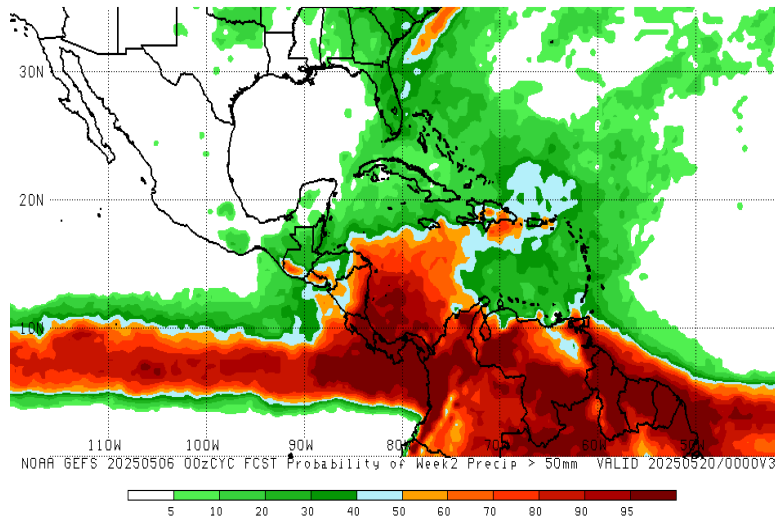




PROBABILITY FORECASTS OF PRECIPITATION (Rainfall > 50 mm)

Week-1 forecast
Valid period: 7 - 13 May 2025

Week-2 forecast
Valid period: 14 - 20 May 2025



For week-1

- There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over México, Morelos, and Puebla. In Central America, 50 mm rainfall probability exceeds 70% in Nicaragua, Costa Rica, and Panamá. In the Caribbean, rainfall will likely be above 75 mm over Lesser Antilles.

For week-2

- There is an increased chance (probability > 70%) for weekly rainfall to exceed 50 mm over Guatemala, Honduras, Nicaragua, Costa Rica, and Panamá.



SUMMARY

Past rainfall conditions

- For the last 180 days, negative anomalies between 300-500mm below normal were recorded in southeast Jalisco. However, positive rainfall anomalies were registered in southern Quintana Roo, northern Tabasco and southeast Veracruz. In Central America, negative anomalies exceeding 500 mm below normal were recorded in the western highlands of Guatemala. In contrast, in parts of Guatemala, Belize, Honduras, Nicaragua, much of Costa Rica and many places across Panama, positive rainfall anomalies were observed. In the Caribbean, negative anomalies more than 100 mm below normal were observed in the Bahamas and southern Haiti. In contrast, in parts of southwest Haiti, positive rainfall anomalies were observed.
- For the last 90 days, negative anomalies occurred in parts of southern Campeche, southern Jalisco, northern Michoacán, northwest Oaxaca, Quintana Roo, southeast Tabasco and Tamaulipas. In contrast, in parts of northwest Chiapas, northeast Oaxaca, Tabasco and southeast Veracruz, positive rainfall anomalies were observed. In Central America, negative anomalies between 300-500mm below normal were recorded in the western highlands of Guatemala. However, in parts of the central valley of Costa Rica and the south Pacific region of Costa Rica, positive rainfall anomalies were observed. In the Caribbean, negative anomalies occurred in parts of the northwest Bahamas. In contrast, in parts of the Bahamas, Haiti, the Dominican Republic and Jamaica, positive rainfall anomalies were observed.
- In the past 30 days, negative anomalies between 50-100mm below normal were recorded in Campeche, Chiapas, southeast Jalisco, Quintana Roo, southwest Tabasco, northwest Tamaulipas and Yucatan. In contrast, positive rainfall anomalies were registered in southeast Chiapas and northeast Oaxaca. Negative anomalies occurred in parts of the south Pacific region of Costa Rica and the west Pacific region of Panamá. However, positive rainfall anomalies were registered in the south Pacific region of Costa Rica. In the Caribbean, the Caribbean negative anomalies between 50-100mm below normal were recorded in the Bahamas and Cuba. Meanwhile, in parts of Haiti and the northern Dominican Republic, positive rainfall anomalies were observed.
- In Mexico, negative anomalies occurred in parts of eastern Campeche, western Chiapas, Quintana Roo, southwest Tabasco and southeast Yucatan. Meanwhile, positive rainfall anomalies were registered in northeast Oaxaca. In Central America, negative anomalies occurred in parts of the western highlands of Guatemala and the west Pacific region of Panamá. In contrast, in parts of the south Pacific region of Costa Rica, positive rainfall anomalies (>200 mm above normal) were observed. In the Caribbean, negative anomalies occurred in parts of the Bahamas and Cuba. In contrast, positive rainfall anomalies were registered in the Dominican Republic.

Week-1 and week-2 forecasts

- Week 1: There is an increased chance (probability > 70%) for weekly rainfall to exceed 75 mm over México, Morelos, and Puebla. In Central America, 75 mm rainfall probability exceeds 70% in Nicaragua, Costa Rica, and Panamá. In the Caribbean, rainfall will likely be above 75 mm over Lesser Antilles.
- Week 2: There is an increased chance (probability > 70%) for weekly rainfall to exceed 75 mm over Guatemala, Honduras, Nicaragua, Costa Rica, and Panamá.



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