

Heat Hazards Outlooks for the Caribbean

Date of Issue: 2025-05-20

Week-1, Valid for: 21 - 27 May 2025

Week-2, Valid for: 28 - 03 June 2025

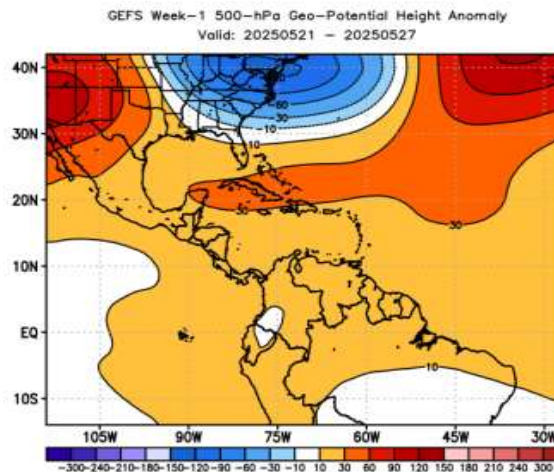
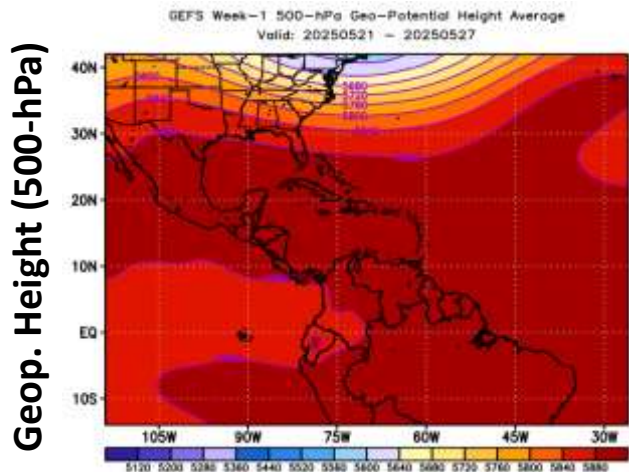
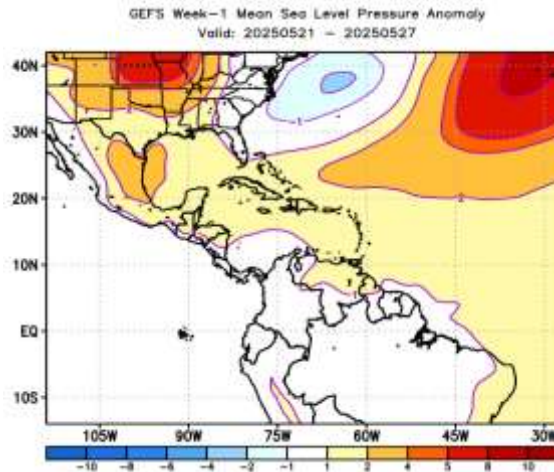
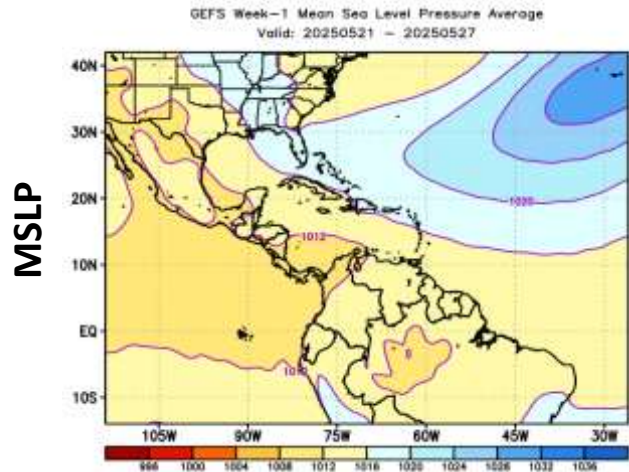


Week-1, Mean Sea Level Pressure & 500-hPa Height

7-day Total

7-day Anomaly

Next week, mean sea level pressure is forecasted to be above-normal across the Caribbean.

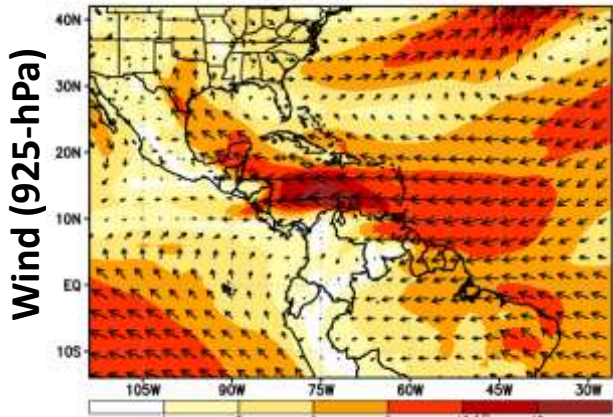


At 500-hPa, geopotential height anomalies in the region also expected to be above-normal over of the Caribbean for next week with notable increase over Cuba, Jamaica and Lucayan Archipelago.

Week-1, 925-hPa and 200-hPa Wind

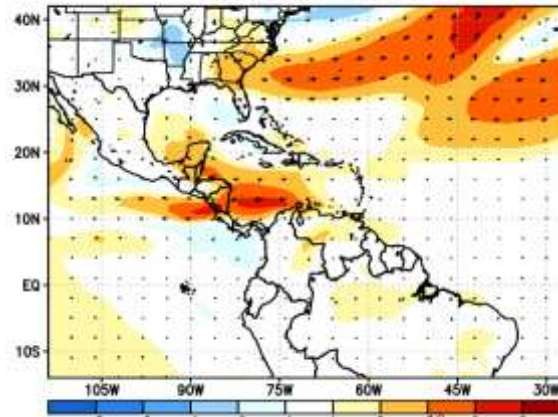
7-day Total

GEFS Week-1 925-hPa Wind Speed and Direction, Average
Valid: 20250521 - 20250527



7-day Anomaly

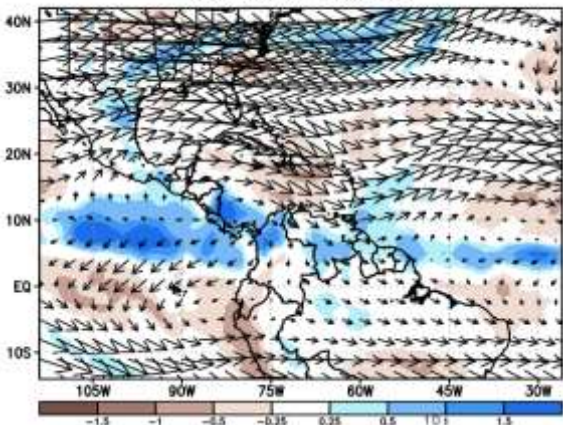
GEFS Week-1 925-hPa Wind Speed and Direction, Anomaly
Valid: 20250521 - 20250527



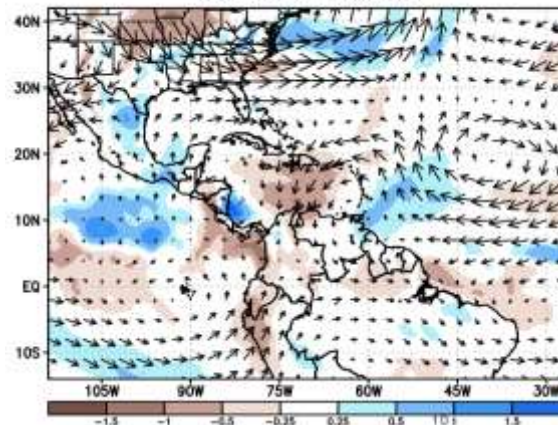
For week-1, low-level winds are expected to be slightly above average over parts of the Bahamas and northern parts of lesser Antilles, and near average over most part of the Caribbean.

Wind & Diverg. (200-hPa)

GEFS Week-1 200-hPa Divergence and Wind Average
Valid: 20250521 - 20250527



GEFS Week-1 200-hPa Divergence and Wind Anomaly
Valid: 20250521 - 20250527

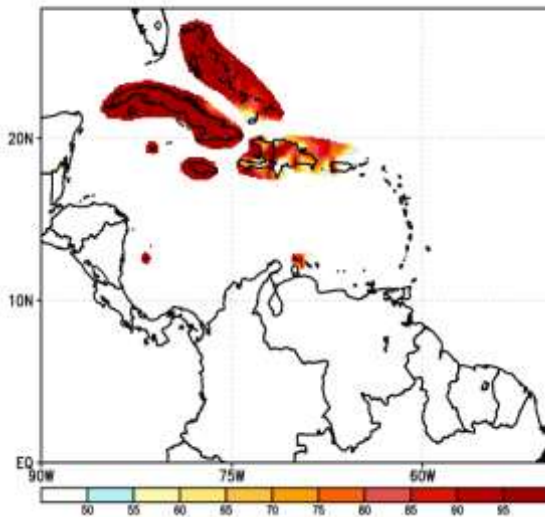


Upper-level convergence is expected over Jamaica, Hispaniola, Puerto Rico and northern lesser Antilles.

Week-1, Daily Tmax/HI Hybrid Index Exceedance Probability, with Respect to Percentile Thresholds

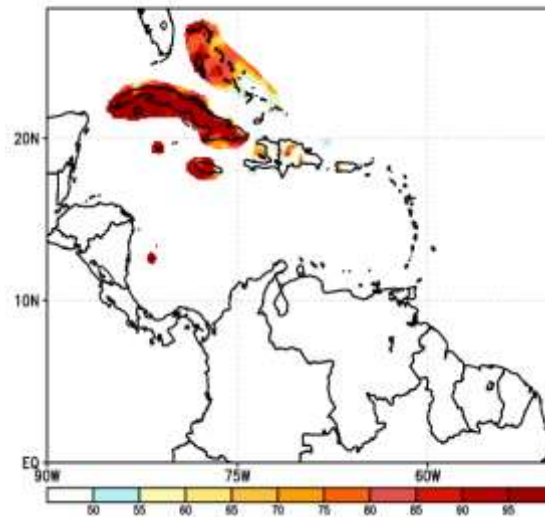
**hybrid > 80th percentile,
≥3 consecutive days**

GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250521 - 20250527



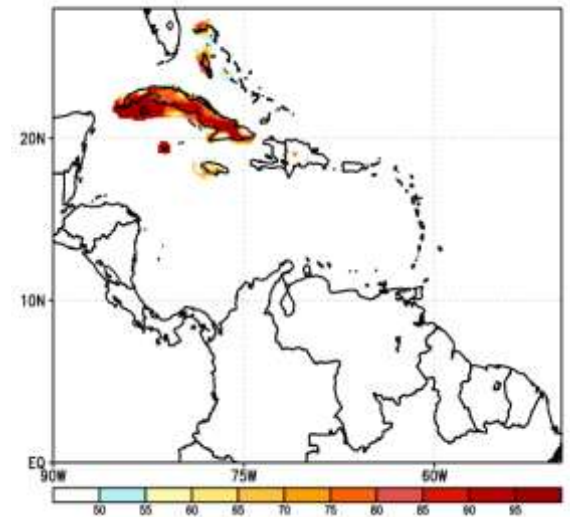
**hybrid > 90th percentile,
≥3 consecutive days**

GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 90th, > 3 consec. days
Valid: 20250521 - 20250527



**hybrid ≥ 95th percentile,
≥3 consecutive days**

GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 95th, > 3 consec. days
Valid: 20250521 - 20250527

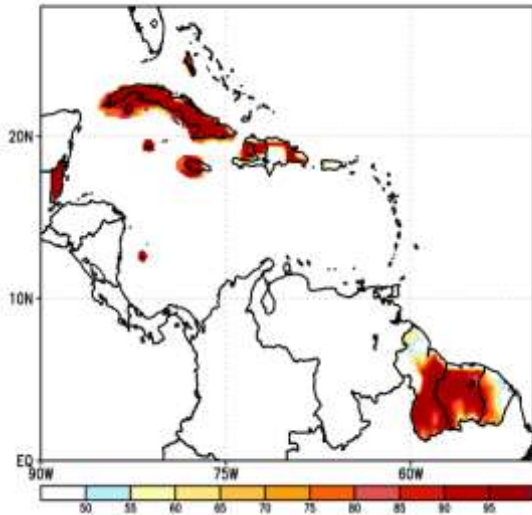


There is a high chance for daily Tmax/HI max hybrid index to exceed the 80th percentile for at least 3 consecutive days over Cuba, Cayman Islands, Jamaica, Lucayan Archipelago and Hispaniola. There is a moderate to high chance for daily Tmax/HI max hybrid index to exceed the 95th percentile for at least 3 consecutive days over Cuba, Cayman Islands, Jamaica and northern Bahamas.

Week-1, Daily Tmax/HI Hybrid Index Exceedance Probability, with Respect to Fixed Thresholds

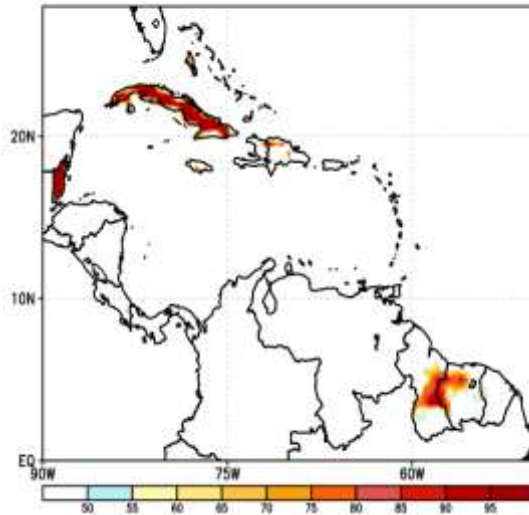
hybrid > 33°C,
≥3 consecutive days

FS Week-1 Tmax/HI hybrid exceedance Prob. > 33 deg. Cels., > 3 consec. da
Valid: 20250521 - 20250527



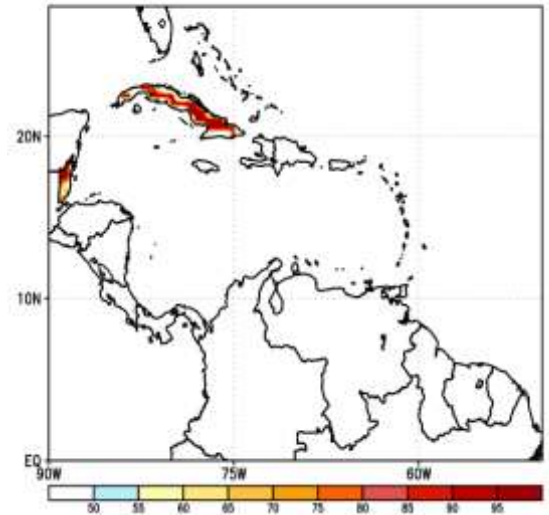
hybrid > 35°C,
≥3 consecutive days

FS Week-1 Tmax/HI hybrid exceedance Prob. > 35 deg. Cels., > 3 consec. da
Valid: 20250521 - 20250527



hybrid > 37°C,
≥3 consecutive days

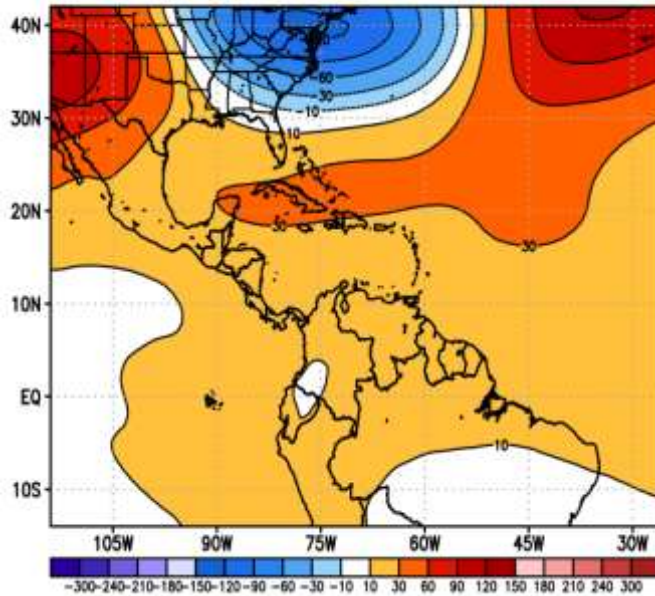
FS Week-1 Tmax/HI hybrid exceedance Prob. > 37 deg. Cels., > 3 consec. da
Valid: 20250521 - 20250527



There is a high probability for daily Tmax/HImax hybrid index to exceed 33°C for at least 3 consecutive days over Cuba, Cayman Islands, Jamaica, parts of the Bahamas, Haiti, parts of Dominican Republic and the Guianas. There is also a moderate to high chance for daily Tmax/HImax hybrid index to exceed 37°C over Cuba.

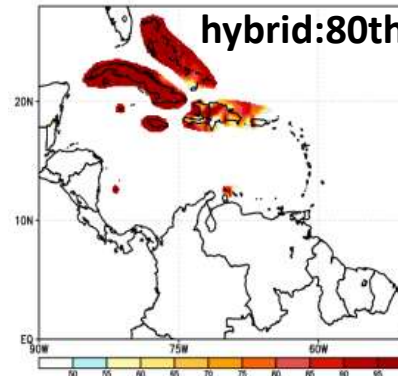
Week-1, Convergence of Evidences

GEFS Week-1 500-hPa Geo-Potential Height Anomaly
Valid: 20250521 - 20250527

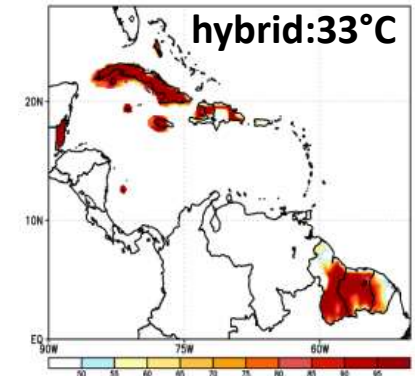


- At 500-hPa, model forecasts indicate geopotential height anomalies in the region expected to be above-normal over of the Caribbean for next week with notable increase over Cuba, Jamaica and Lucayan Archipelago.
- Hybrid index exceedance probability forecasts indicate:
 - High chances for the hybrid index to exceed the 95th percentile over Cuba, Cayman Islands, Jamaica and northern Bahamas.
 - High chances for the hybrid index to exceed 37°C over Cuba.

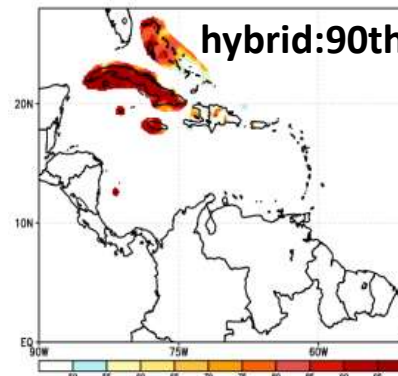
GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250521 - 20250527



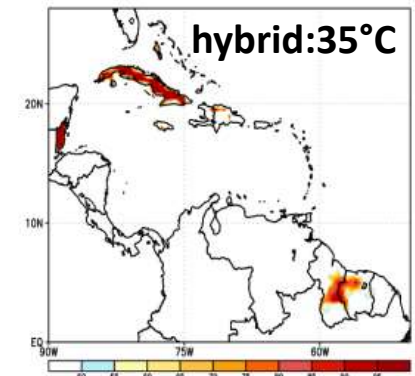
FS Week-1 Tmax/HI hybrid exceedance Prob. > 33 deg. Cels., > 3 consec. da
Valid: 20250521 - 20250527



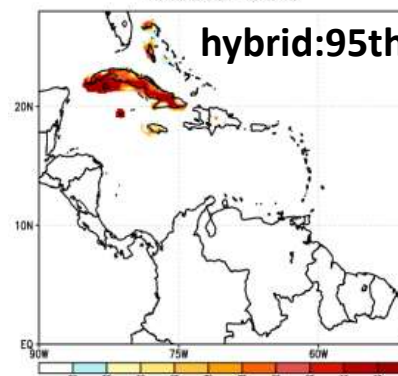
GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 90th, > 3 consec. days
Valid: 20250521 - 20250527



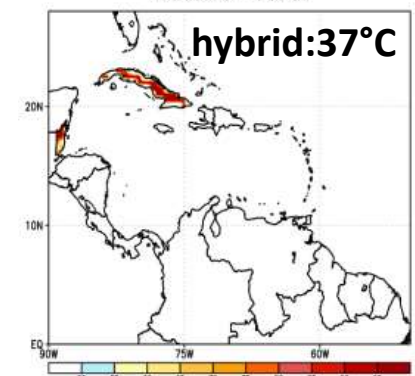
FS Week-1 Tmax/HI hybrid exceedance Prob. > 35 deg. Cels., > 3 consec. da
Valid: 20250521 - 20250527



GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 95th, > 3 consec. days
Valid: 20250521 - 20250527



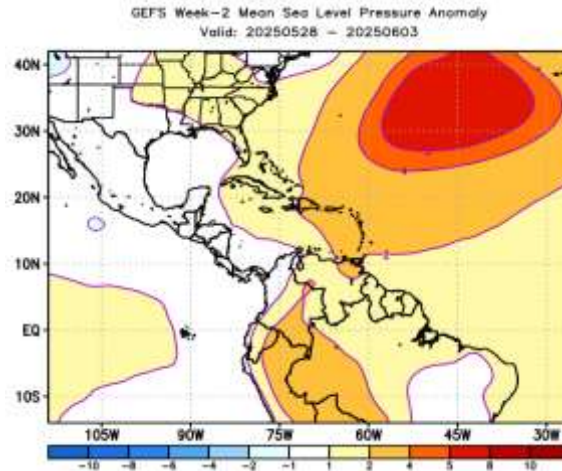
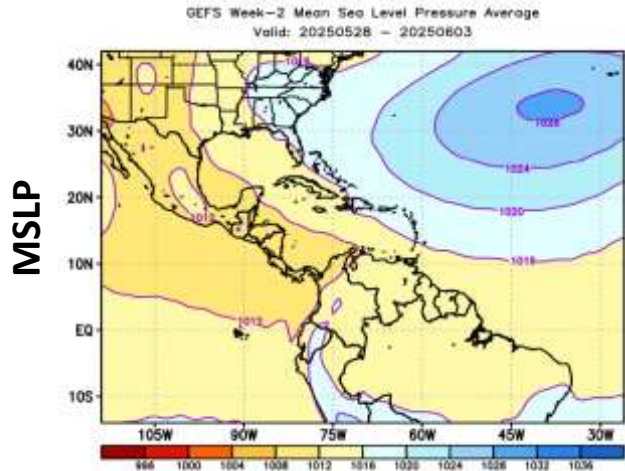
FS Week-1 Tmax/HI hybrid exceedance Prob. > 37 deg. Cels., > 3 consec. da
Valid: 20250521 - 20250527



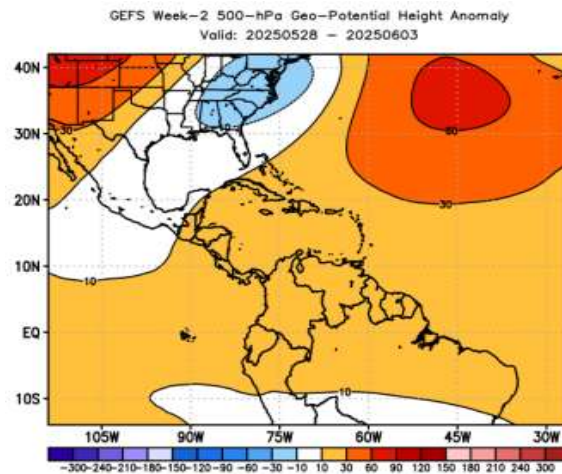
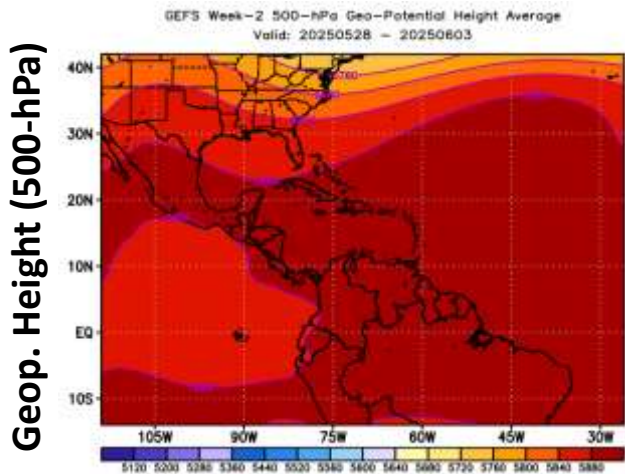
Week-2, Mean Sea Level Pressure & 500-hPa Height

7-day Total

7-day Anomaly



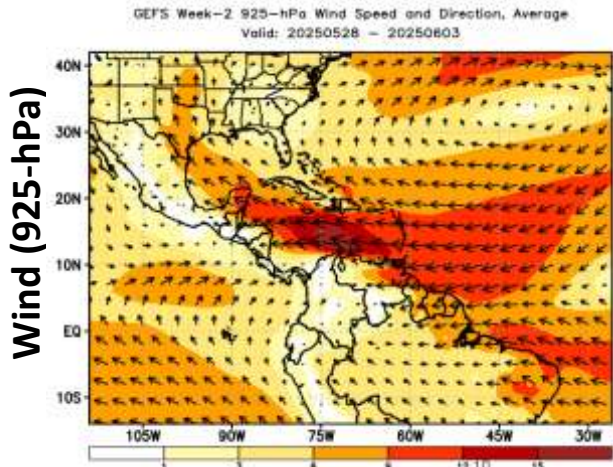
For week-2, mean sea level pressure is forecasted to be above-normal across the Caribbean with notable increase over Dominican Republic and lesser Antilles.



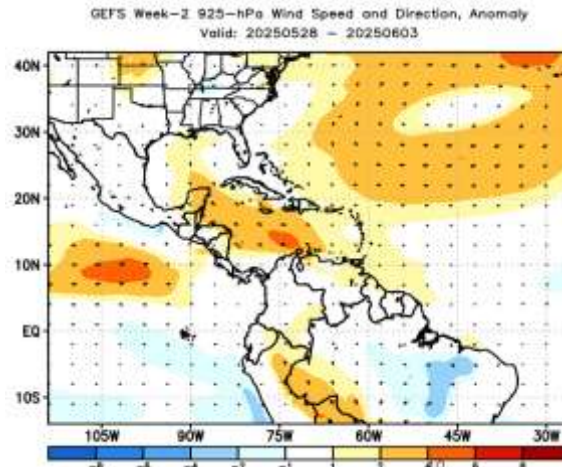
At 500-hPa, geopotential height anomalies in the region expected to be above-normal over of the Caribbean for week 2.

Week-2, 925-hPa and 200-hPa Wind

7-day Total

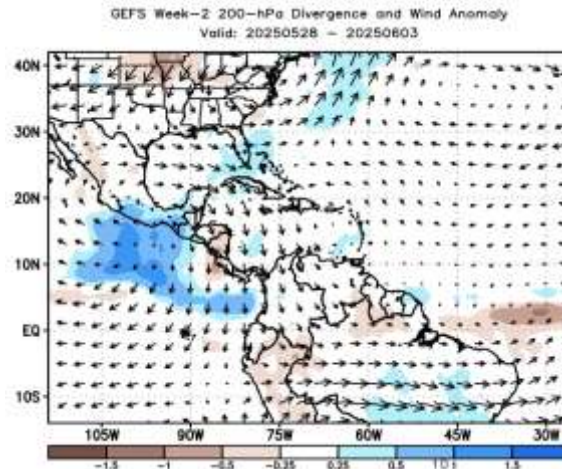
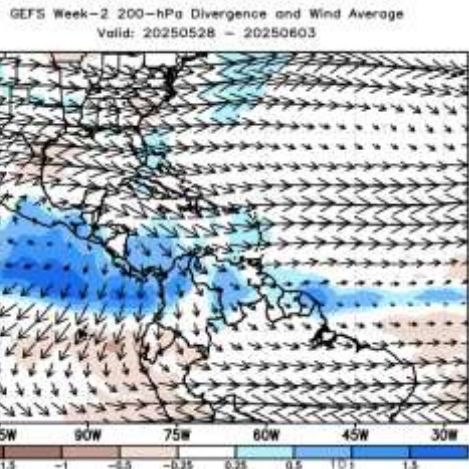


7-day Anomaly



For week-2, low-level winds are expected to be slightly above average over Jamaica, and lesser Antilles, and near average over other parts of the Caribbean.

Wind & Diverg. (200-hPa)

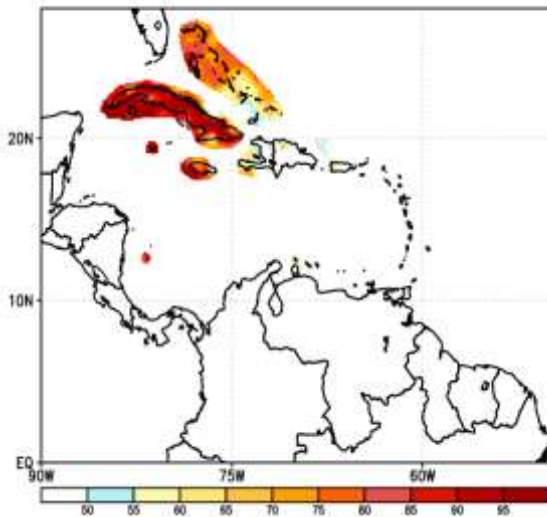


Upper-level divergence is expected over the Bahamas and northern parts of Cuba.

Week-2, Daily Tmax/HI Hybrid Index Exceedance Probability, with Respect to Percentile Thresholds

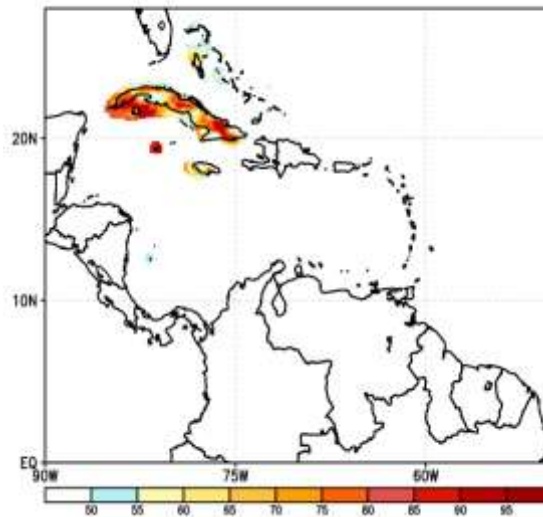
hybrid > 80th percentile,
≥3 consecutive days

GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250528 - 20250603



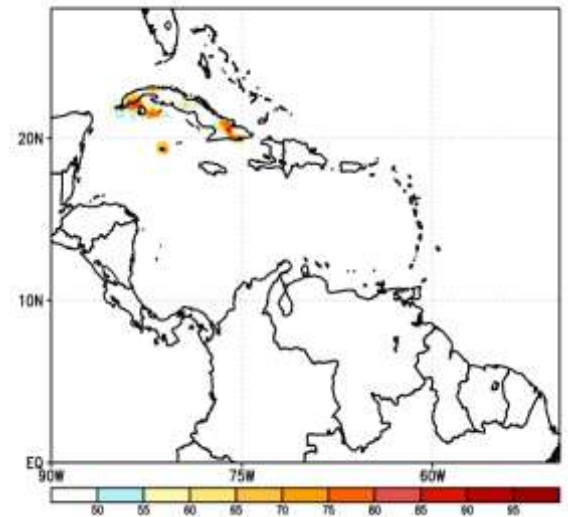
hybrid > 90th percentile,
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GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 90th, > 3 consec. days
Valid: 20250528 - 20250603



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GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 95th, > 3 consec. days
Valid: 20250528 - 20250603



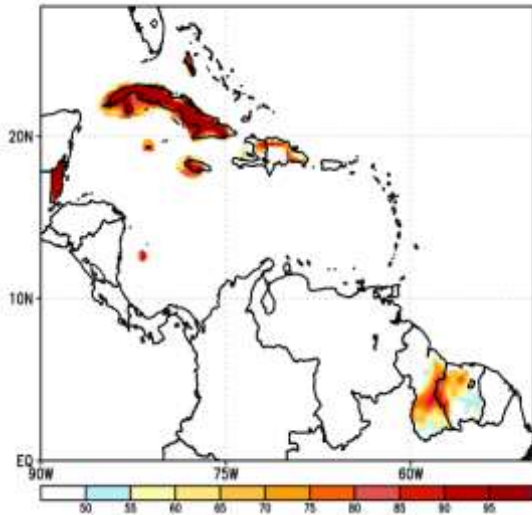
There is a high chance for daily Tmax/HI max hybrid index to exceed the 80th percentile for at least 3 consecutive days over Cuba, Cayman Islands, Jamaica, and Lucayan Archipelago.

There is a low to moderate chance for daily Tmax/HI max hybrid index to exceed the 95th percentile for at least 3 consecutive days over few parts of Cuba, and Cayman Islands.

Week-2, Daily Tmax/HI Hybrid Index Exceedance Probability, with Respect to Fixed Thresholds

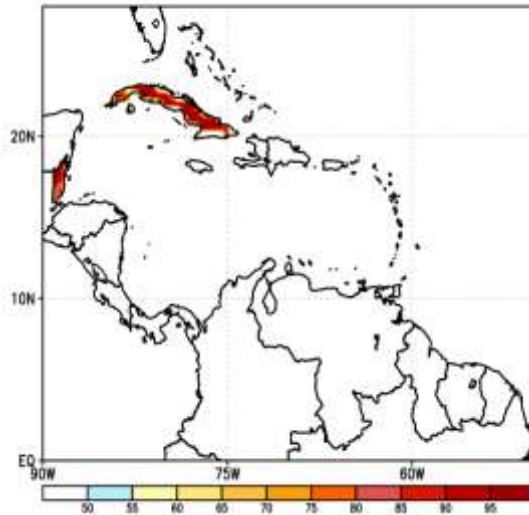
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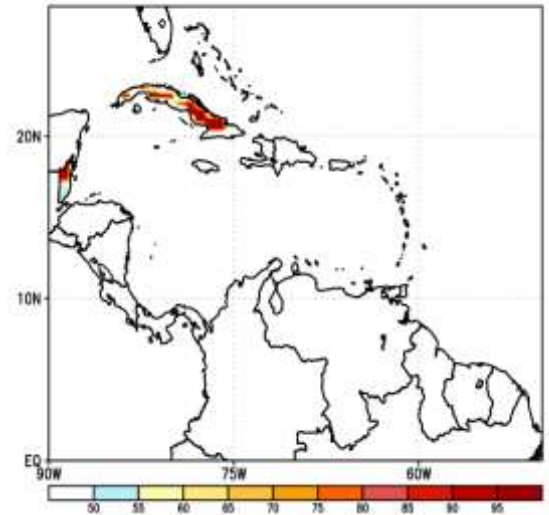
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Valid: 20250528 - 20250603



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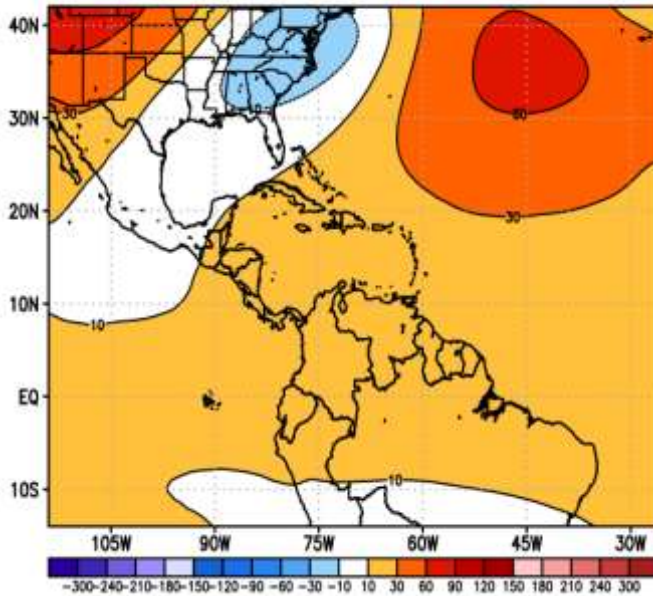
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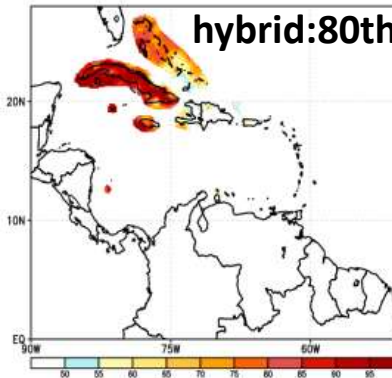
Week-2, Convergence of Evidences

GEFS Week-2 500-hPa Geo-Potential Height Anomaly
Valid: 20250528 - 20250603

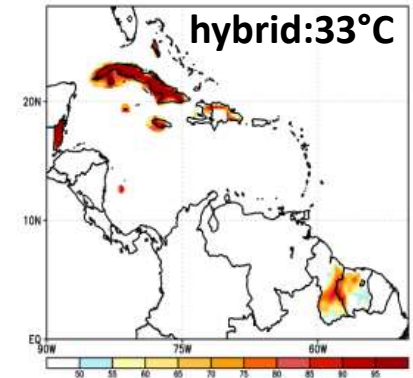


- At 500-hPa, model forecasts indicate geopotential height anomalies in the region expected to be above-normal over of the Caribbean for week 2.
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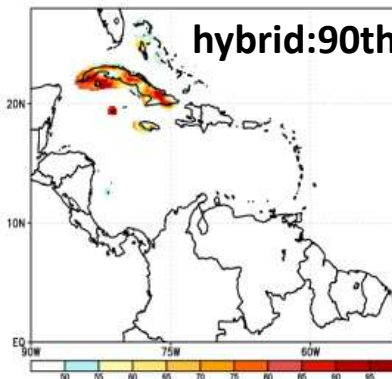
GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250528 - 20250603



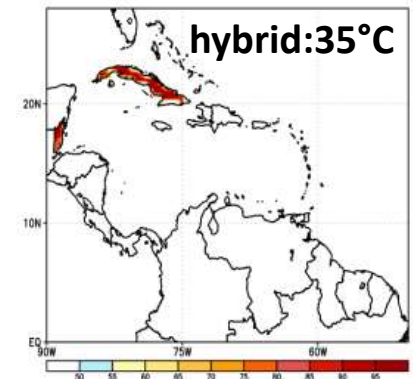
FS Week-2 Tmax/HI hybrid exceedance Prob. > 33 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



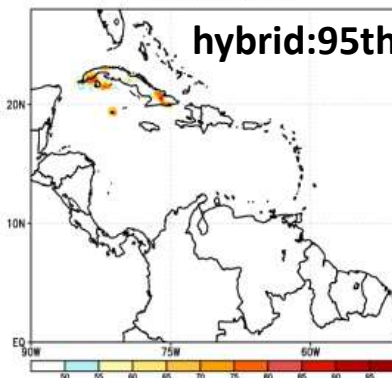
GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 90th, > 3 consec. days
Valid: 20250528 - 20250603



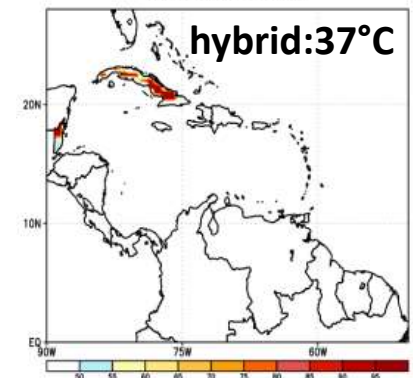
FS Week-2 Tmax/HI hybrid exceedance Prob. > 35 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 95th, > 3 consec. days
Valid: 20250528 - 20250603



FS Week-2 Tmax/HI hybrid exceedance Prob. > 37 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



Urban Heat Island Alerts for Caribbean



https://www.cpc.ncep.noaa.gov/products/international/UHI/UHI_alert_Caribbean.html

Urban Heat Island Forecasts Week-1

| NO | Stations | 80th Pctl Clm | May-21-2025 | | | May-22-2025 | | | May-23-2025 | | | May-24-2025 | | | May-25-2025 | | |
|----|----------------------|---------------|-------------|------|---------------------|-------------|------|---------------------|-------------|------|---------------------|-------------|------|---------------------|-------------|------|---------------------|
| | | | Tmax | Rain | Alert | Tmax | Rain | Alert | Tmax | Rain | Alert | Tmax | Rain | Alert | Tmax | Rain | Alert |
| 1 | Barquisimeto | 29.2 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 2 | Barranquilla | 30.6 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Not Activated |
| 3 | Caracas | 28.7 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 4 | Cartagena | 30.9 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Activated |
| 5 | Castries | 29.5 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 6 | Chaguanas | 31.0 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 7 | Fort_De_France | 28.5 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated |
| 8 | Havana | 32.9 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated |
| 9 | Kingston | 29.6 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated |
| 10 | Maracaibo_La_Chinita | 34.0 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 11 | Maracay_Ba_Sucre | 28.7 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 12 | Miami_FI | 35.8 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 13 | Port_Au_Prince | 29.3 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 14 | San_Juan | 28.4 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated |
| 15 | Tampa | 33.3 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Activated |
| 16 | Santo_Domingo | 30.6 degC | Wet | Dry | Alert Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Activated | Wet | Dry | Alert Not Activated |
| 17 | Punta_Cana | 29.9 degC | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Not Activated | Wet | Dry | Alert Activated |



https://www.cpc.ncep.noaa.gov/products/international/UHI/Caribb_day_80.html

Urban Heat Island Forecasts Weeks-2, 3, & 4

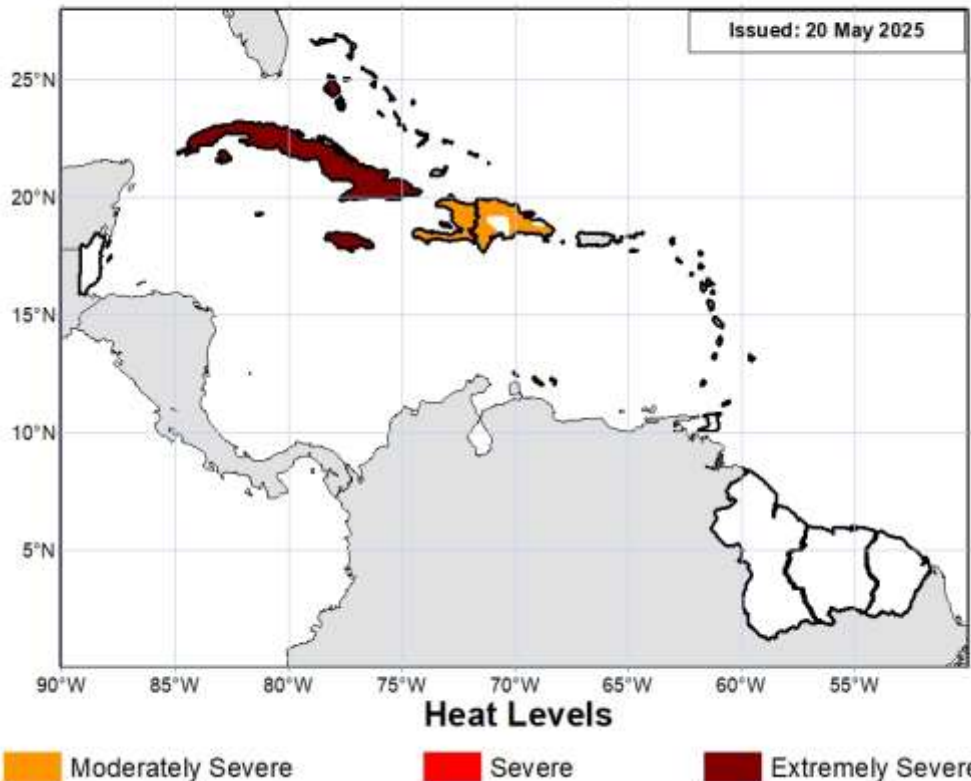
| NO | Stations | Week 2: 26May2025 - 01Jun2025 | | | | Week 3: 02Jun2025 - 08Jun2025 | | | | Week 4: 09Jun2025 - 15Jun2025 | | | |
|----|----------------------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|-------------------------------|------|------|-------|
| | | 80th Pctl Clim | Tmax | Rain | Alert | 80th Pctl Clim | Tmax | Rain | Alert | 80th Pctl Clim | Tmax | Rain | Alert |
| 1 | Barquisimelo | 29.0 degC | | | | 28.7 degC | | | | 29.0 degC | | | |
| 2 | Barranquilla | 30.3 degC | | | | 30.2 degC | | | | 30.3 degC | | | |
| 3 | Cartagena | 30.6 degC | | | | 30.9 degC | | | | 31.1 degC | | | |
| 4 | Castries | 29.0 degC | | | | 29.0 degC | | | | 29.0 degC | | | |
| 5 | Chaguanas | 30.4 degC | | | | 30.3 degC | | | | 29.9 degC | | | |
| 6 | Fort_De_France | 28.3 degC | | | | 28.3 degC | | | | 28.3 degC | | | |
| 7 | Havana | 32.1 degC | | | | 32.5 degC | | | | 32.4 degC | | | |
| 8 | Kingston | 29.8 degC | | | | 30.1 degC | | | | 30.5 degC | | | |
| 9 | Maracaibo_La_Chinita | 33.5 degC | | | | 33.8 degC | | | | 34.1 degC | | | |
| 10 | Maracay_Ba_Sucre | 28.2 degC | | | | 27.7 degC | | | | 27.6 degC | | | |
| 11 | Miami_Fl | 35.7 degC | | | | 34.9 degC | | | | 35.3 degC | | | |
| 12 | Port_Au_Prince | 29.8 degC | | | | 29.9 degC | | | | 30.3 degC | | | |
| 13 | Port_De_Paix | 28.6 degC | | | | 28.6 degC | | | | 28.6 degC | | | |
| 14 | San_Juan | 28.8 degC | | | | 29.0 degC | | | | 28.8 degC | | | |
| 15 | Tampa | 35.0 degC | | | | 34.2 degC | | | | 34.0 degC | | | |
| 16 | Santo_Domingo | 30.6 degC | | | | 30.7 degC | | | | 30.8 degC | | | |
| 17 | Punta_Cana | 30.3 degC | | | | 30.4 degC | | | | 30.4 degC | | | |



https://www.cpc.ncep.noaa.gov/products/international/UHI/Caribb_week234_80.html

Week-1 Heat Hazards Outlook

Week-1 Caribbean Heat Hazard Outlooks
Valid: 21 - 27 May 2025

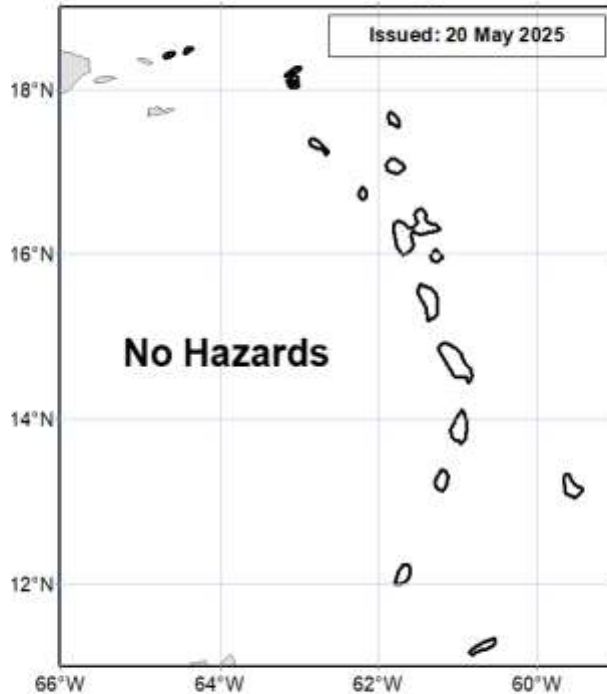


- There is an increased chance for **moderately severe heat** over Cuba, Cayman Islands, Jamaica, parts of the Bahamas, Haiti, and parts of Dominican Republic.
- There is an increased chance for **severe heat** exists over Cuba, Cayman Islands, Jamaica, parts of the Bahamas.
- Increased chances of **extremely severe heat** exist over Cuba, Cayman Islands, Jamaica, parts of the Bahamas.




Hybrid index probability of exceedance forecasts also suggest high chances for persistent heat in the orange and red shaded areas.

Week-1 Lesser Antilles Heat Hazards Outlook

Week-1 Lesser Antilles Heat Hazard Outlooks
Valid: 21 - 27 May 2025



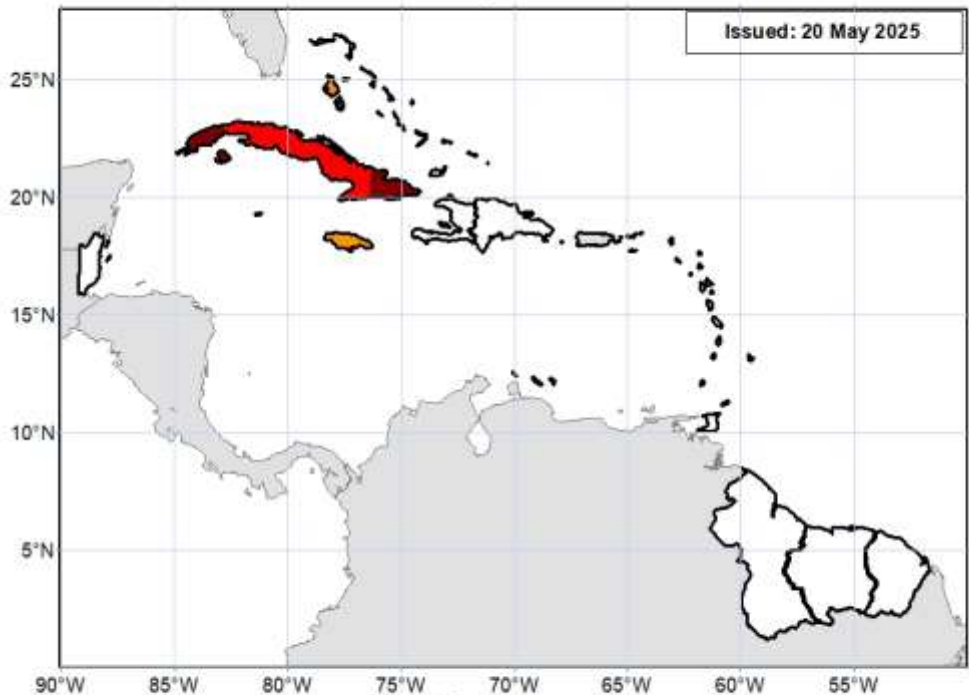
Heat Levels

 Moderately Severe  Severe  Extremely Severe

There are no hazards forecast for week 1.

Week-2 Heat Hazards Outlook

Week-2 Caribbean Heat Hazard Outlooks Valid: 28 May - 03 June 2025

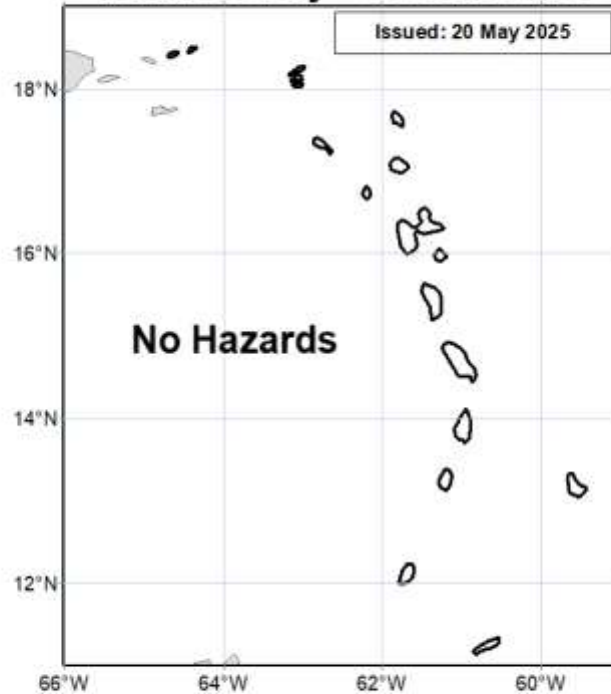


- There is an increased chance for **moderately severe heat** over Cuba, Cayman Islands, Jamaica, parts of the Bahamas.
- There is an increased chance for **severe heat** exists over Cuba, and Cayman Islands.
- Increased chances of **extremely severe heat** exist over parts of Cuba.

Hybrid index probability of exceedance forecasts also suggest high chances for persistent heat in the orange and red shaded areas.

Week-2 Lesser Antilles Heat Hazards Outlook

Week-2 Lesser Antilles Heat Hazard Outlooks Valid: 28 May - 03 June 2025



Heat Levels



There are no hazards forecast for week 2.

For More Information Please Visit

Forecasting Tools:

https://www.cpc.ncep.noaa.gov/products/international/endalk/climate_health/heat-health_forecasts_alt.shtml

Urban Heat Island Alerts:

https://www.cpc.ncep.noaa.gov/products/international/UHI/UHI_alert_map.html