

Heat Hazards Outlooks for the Caribbean

Date of Issue: 2025-05-27

Week-1, Valid for: 28 - 03 June 2025

Week-2, Valid for: 04 - 10 June 2025

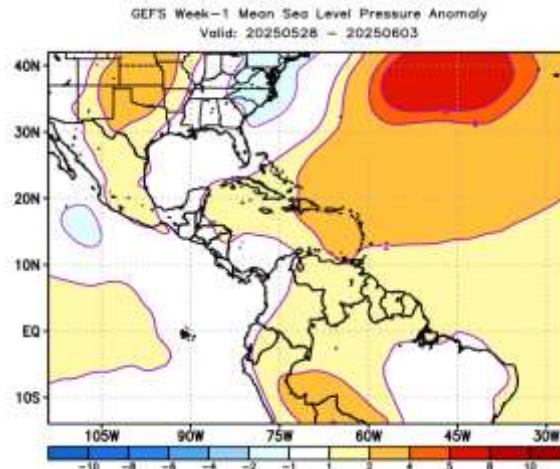
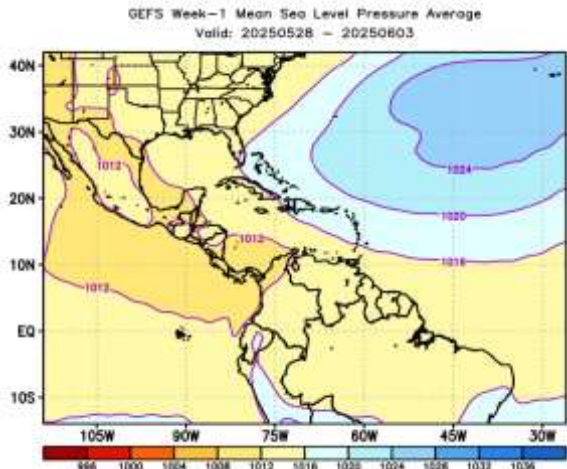


Week-1, Mean Sea Level Pressure & 500-hPa Height

7-day Total

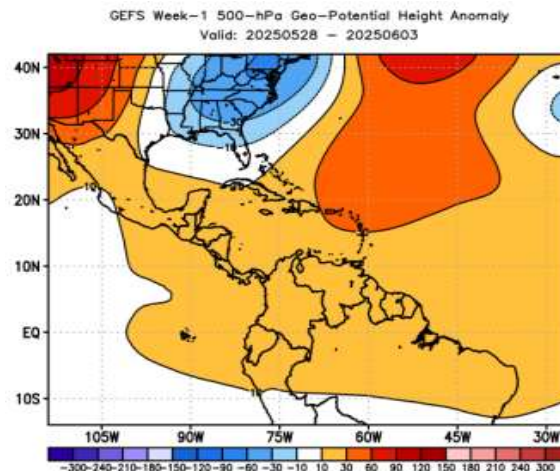
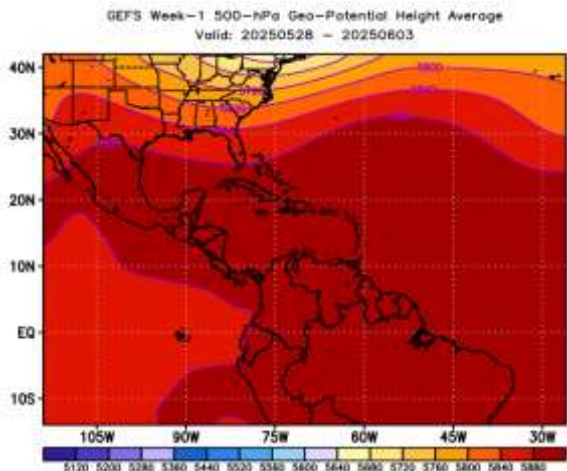
7-day Anomaly

MSLP



Next week, mean sea level pressure is forecasted to be above-average across most of the Caribbean with an increase over lesser Antilles.

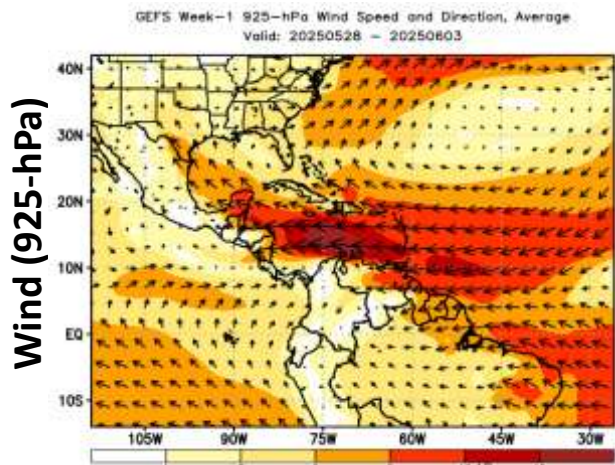
Geop. Height (500-hPa)



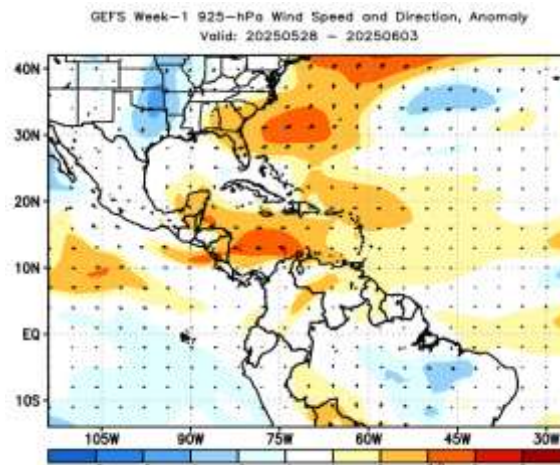
At 500-hPa, geopotential height anomalies in the region also expected to be above-normal over most of the Caribbean for next week with an increase over northern lesser Antilles.

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

7-day Total

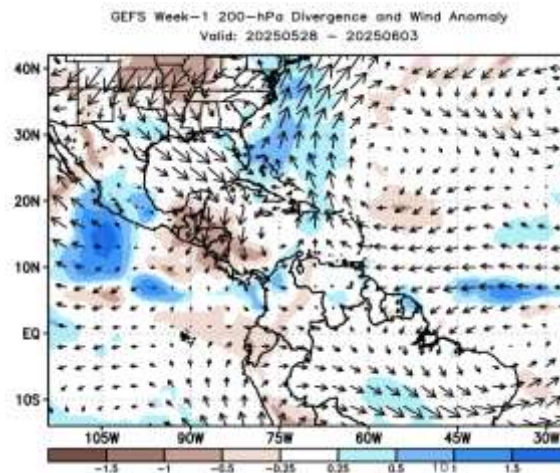
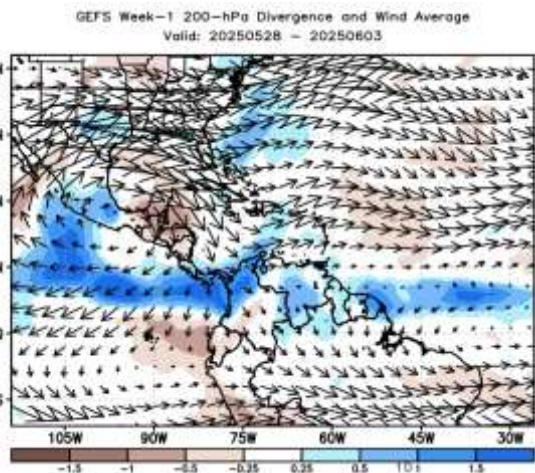


7-day Anomaly



For week-1, low-level winds are expected to be normal over Cuba, and Lucayan Archipelago and above-average across the rest of the Caribbean.

Wind & Diverg. (200-hPa)

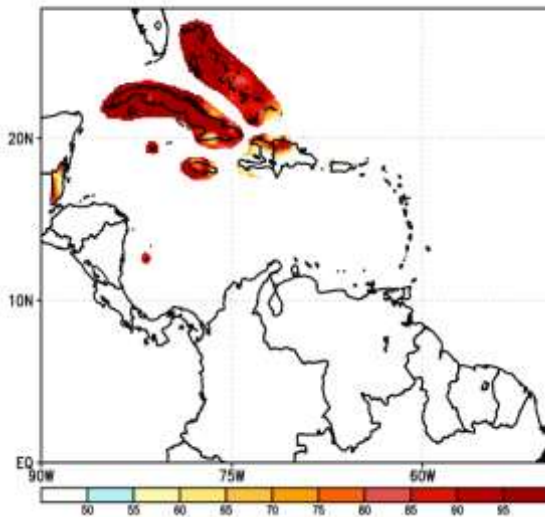


Upper-level convergence is expected over Cuba and Cayman Islands.

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

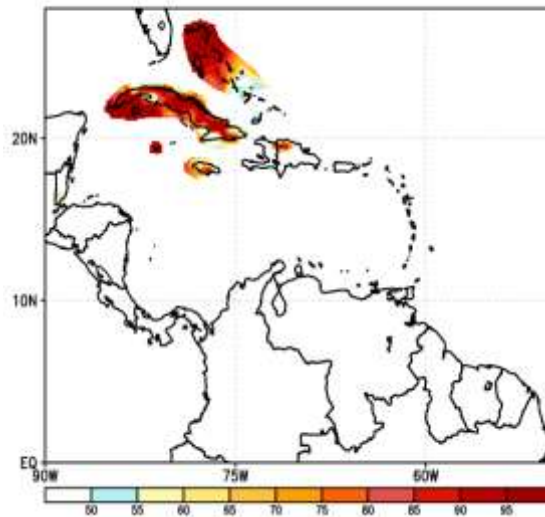
**hybrid > 80th percentile,
≥3 consecutive days**

GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250528 - 20250603



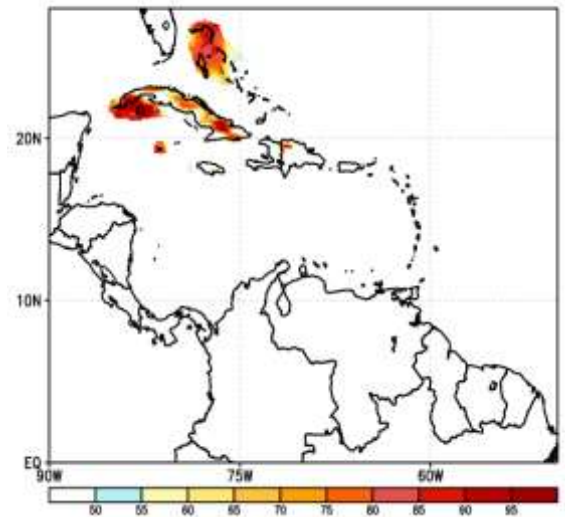
**hybrid > 90th percentile,
≥3 consecutive days**

GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 90th, > 3 consec. days
Valid: 20250528 - 20250603



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

GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 95th, > 3 consec. days
Valid: 20250528 - 20250603

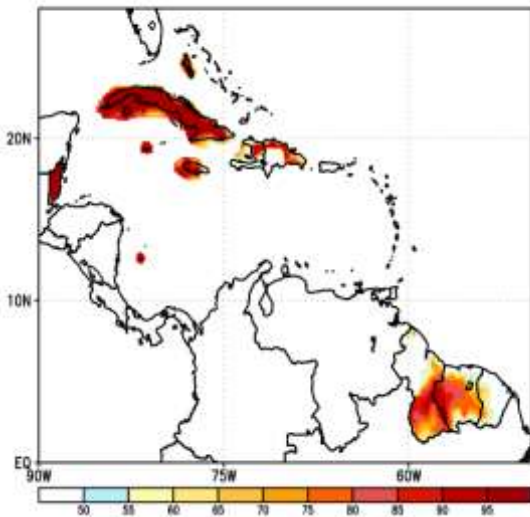


There is a high chance for daily Tmax/HI max hybrid index to exceed the 80th percentile for at least 3 consecutive days over Cuba, Cayman Islands, Jamaica, Lucayan Archipelago and northern parts of Hispaniola. There is a moderate to high chance for daily Tmax/HI max hybrid index to exceed the 95th percentile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

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

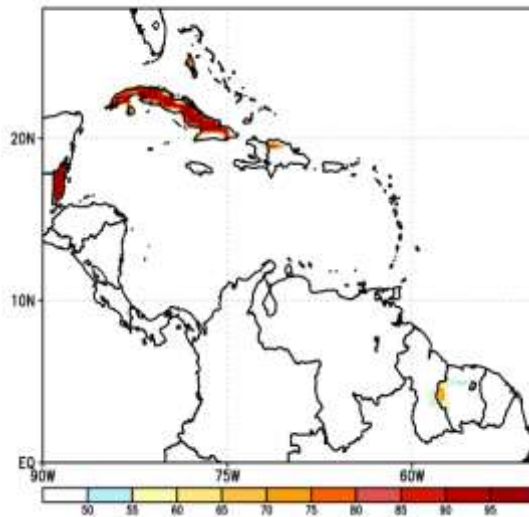
**hybrid > 33°C,
≥3 consecutive days**

FS Week-1 Tmax/HI hybrid exceedance Prob. > 33 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



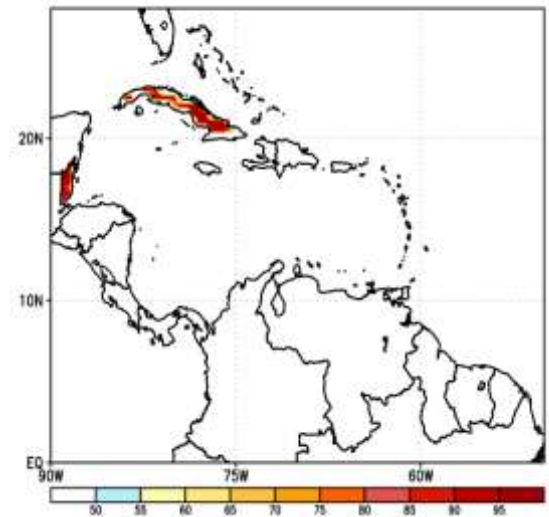
**hybrid > 35°C,
≥3 consecutive days**

FS Week-1 Tmax/HI hybrid exceedance Prob. > 35 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



**hybrid > 37°C,
≥3 consecutive days**

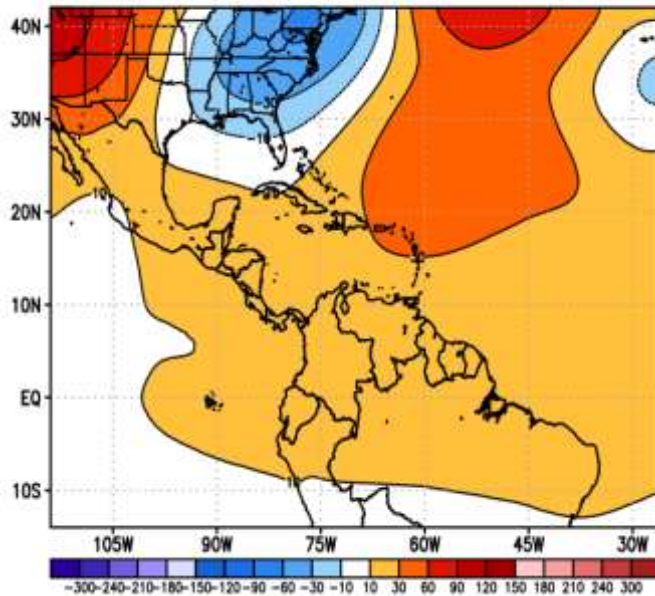
FS Week-1 Tmax/HI hybrid exceedance Prob. > 37 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



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, the Bahamas, some parts of Hispaniola, southern Guyana and Suriname. There is also a moderate to high chance for daily Tmax/HImax hybrid index to exceed 37°C over Cuba.

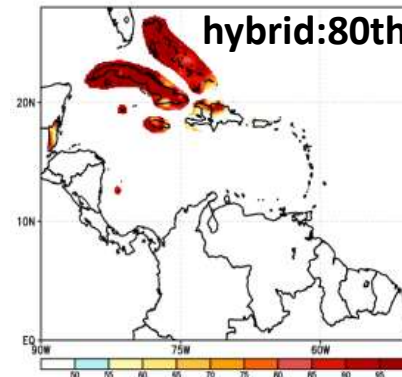
Week-1, Convergence of Evidences

GEFS Week-1 500-hPa Geo-Potential Height Anomaly
Valid: 20250528 - 20250603

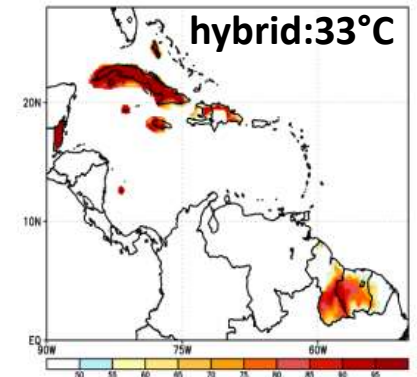


- At 500-hPa, model forecasts indicate geopotential height anomalies in the region expected to be above-normal over most of the Caribbean for next week with an increase over northern lesser Antilles.
- Hybrid index exceedance probability forecasts indicate:
 - High chances for the hybrid index to exceed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

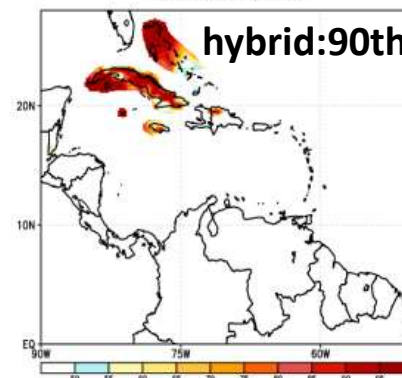
GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250528 - 20250603



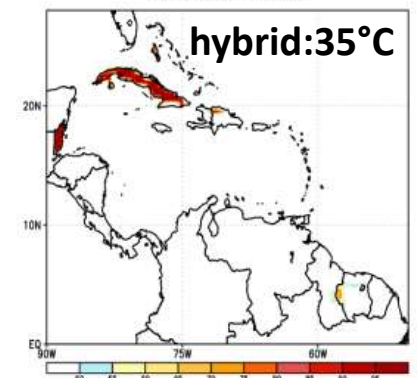
FS Week-1 Tmax/HI hybrid exceedance Prob. > 33 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



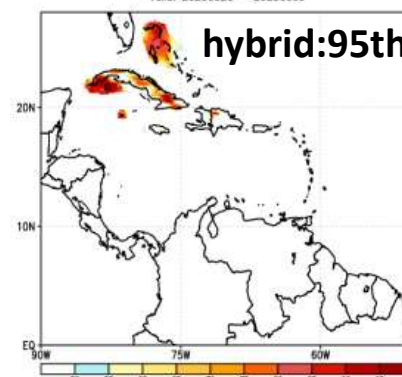
GEFS Week-1 Tmax/HI hybrid exceedance Prob. > 90th, > 3 consec. days
Valid: 20250528 - 20250603



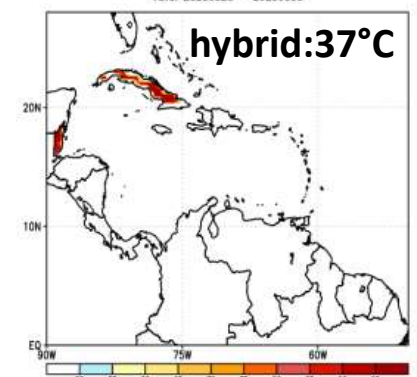
FS Week-1 Tmax/HI hybrid exceedance Prob. > 35 deg. Cels., > 3 consec. da
Valid: 20250528 - 20250603



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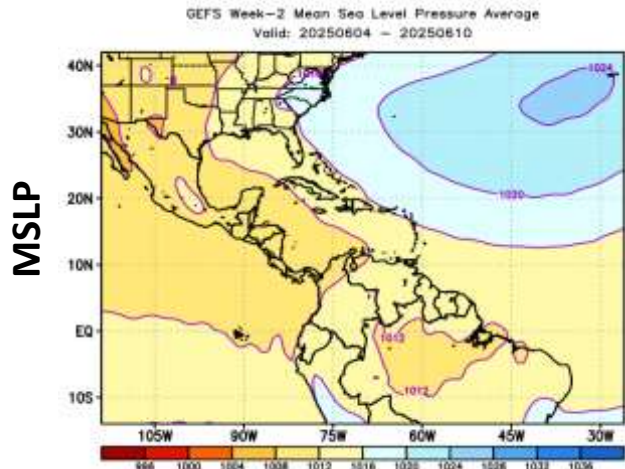


FS Week-1 Tmax/HI hybrid exceedance Prob. > 37 deg. Cels., > 3 consec. da
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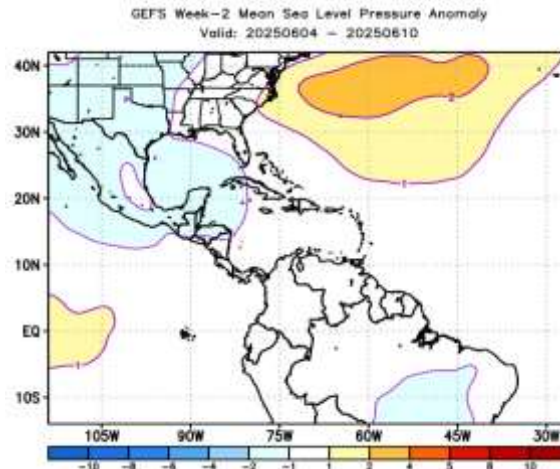


Week-2, Mean Sea Level Pressure & 500-hPa Height

7-day Total



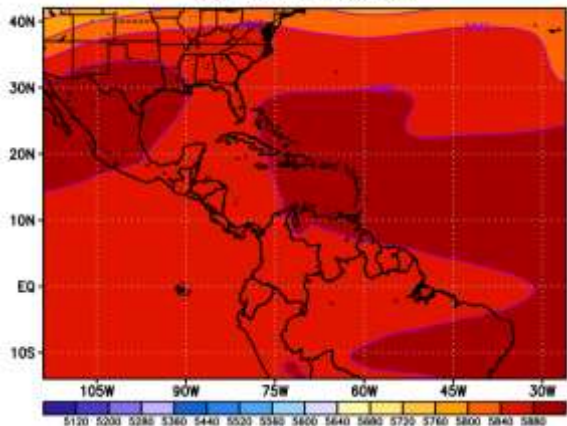
7-day Anomaly



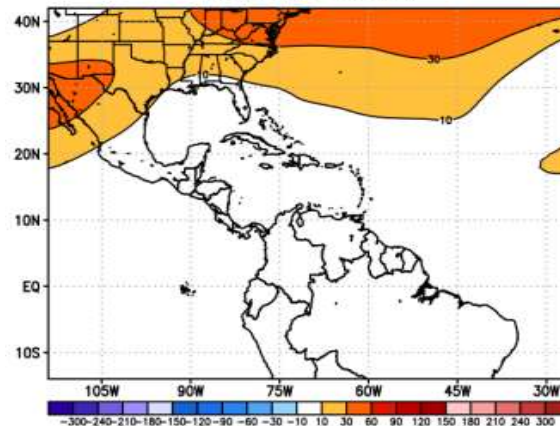
For week-2, mean sea level pressure is forecasted to be normal across much of the Caribbean.

Geop. Height (500-hPa)

GEFS Week-2 500-hPa Geo-Potential Height Average
Valid: 20250604 - 20250610



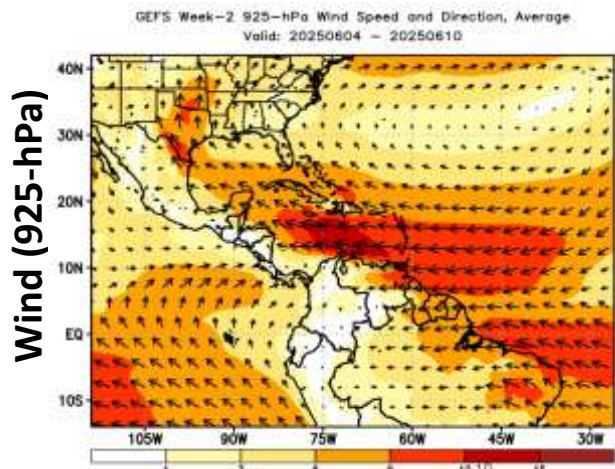
GEFS Week-2 500-hPa Geo-Potential Height Anomaly
Valid: 20250604 - 20250610



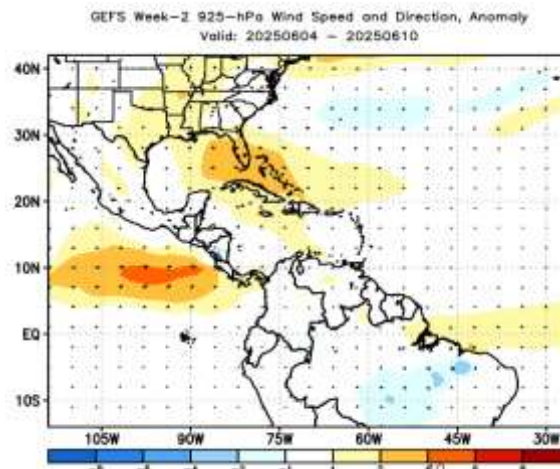
At 500-hPa, geopotential height anomalies in the region expected to be normal for week 2.

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

7-day Total

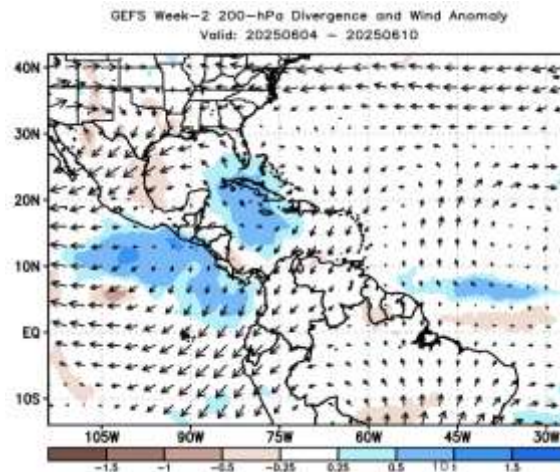
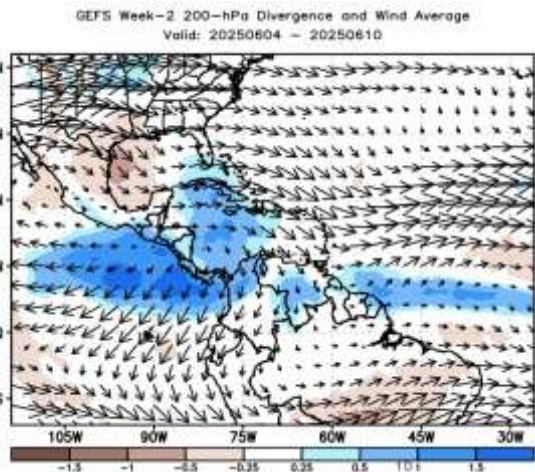


7-day Anomaly



For week-2, low-level winds are expected to be above-average over Cuba, Lucayan Archipelago and normal across the rest of the Caribbean.

Wind & Diverg. (200-hPa)

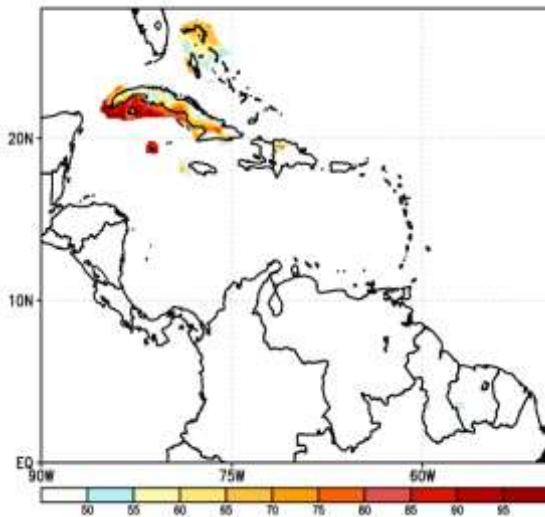


Upper-level convergence is expected over Cuba and the Bahamas.

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

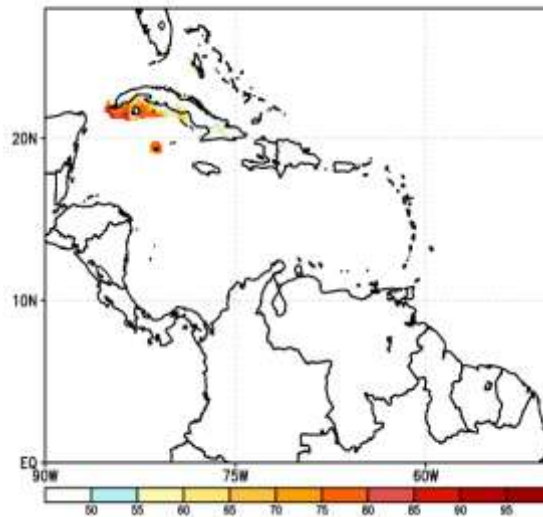
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GEFS Week-2 Tmax/HI hybrid exceedance Prob. > 80th, > 3 consec. days
Valid: 20250604 - 20250610



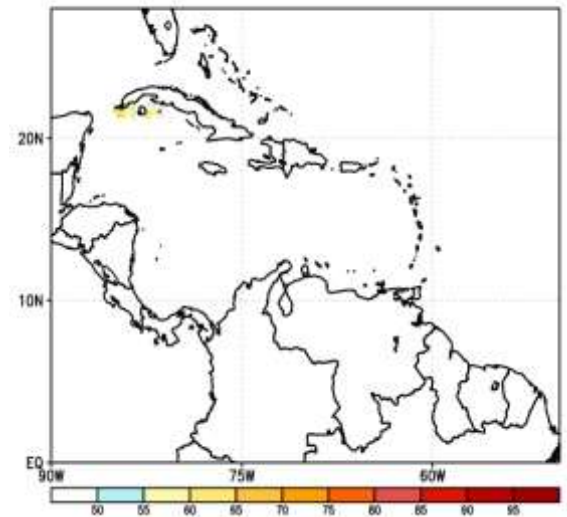
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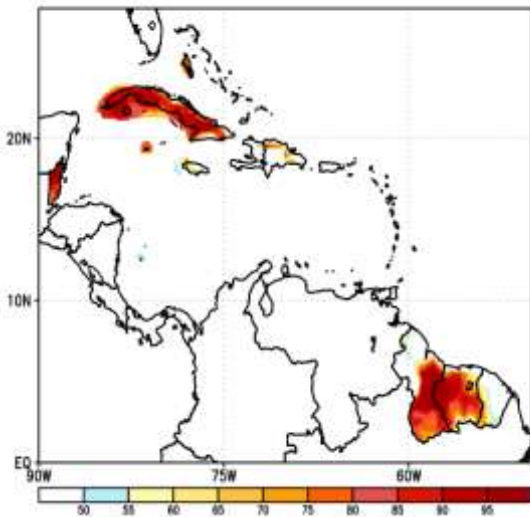


There is a moderate to high chance for daily Tmax/HI hybrid index to exceed the 80th percentile for at least 3 consecutive days over Cuba, Cayman Islands and the Bahamas. There is a low chance for daily Tmax/HI hybrid index to exceed the 95th percentile for at least 3 consecutive days over Cayman Islands.

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

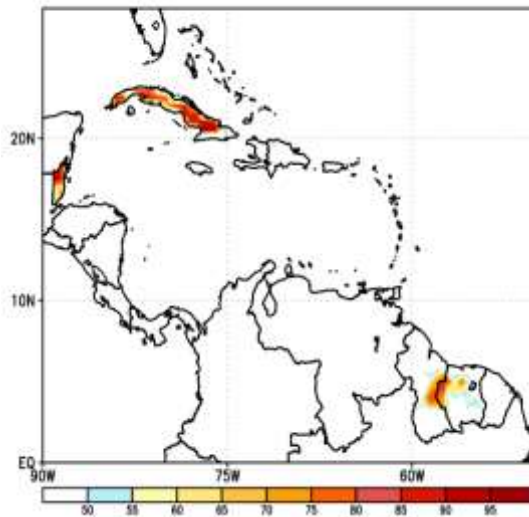
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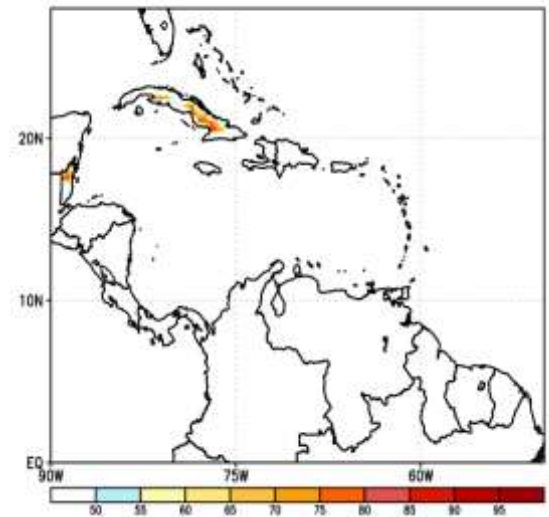
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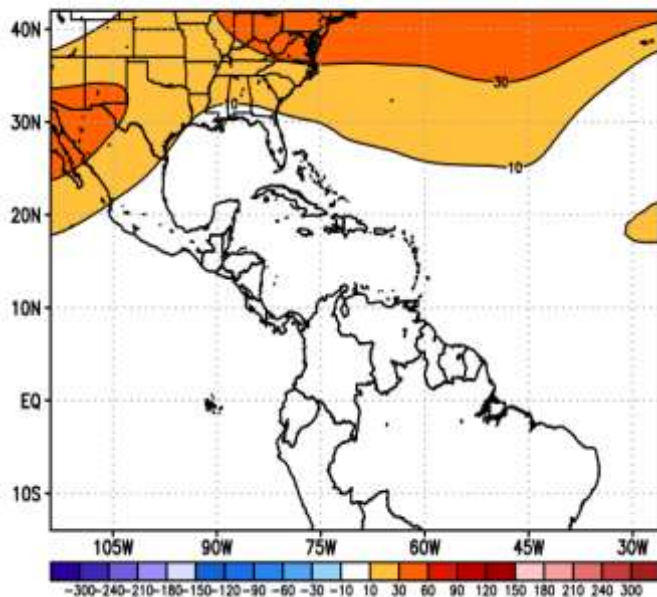
FS Week-2 Tmax/HI hybrid exceedance Prob. > 37 deg. Cels., > 3 consec. da
Valid: 20250604 - 20250610



There is a high probability for daily Tmax/HI max hybrid index to exceed 33°C for at least 3 consecutive days over Cuba, Cayman Islands and the Bahamas. There is a low to moderate chance for daily Tmax/HI max hybrid index to exceed 37°C over some parts of Cuba.

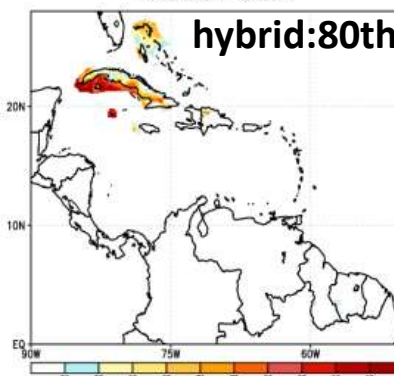
Week-2, Convergence of Evidences

GEFS Week-2 500-hPa Geo-Potential Height Anomaly
Valid: 20250604 - 20250610

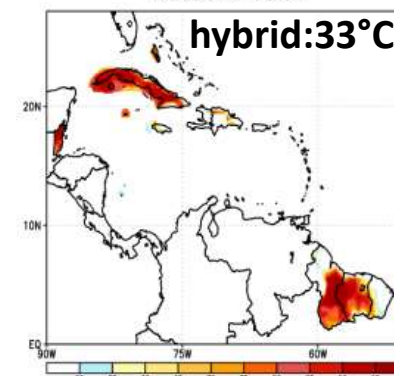


- At 500-hPa, model forecasts indicate geopotential height anomalies in the region expected to be normal for week 2.
- Hybrid index exceedance probability forecasts indicate:
 - Low chances for the hybrid index to exceed the 95th percentile over Cayman Islands.
 - Low to moderate chances for the hybrid index to exceed 37°C over some parts of Cuba.

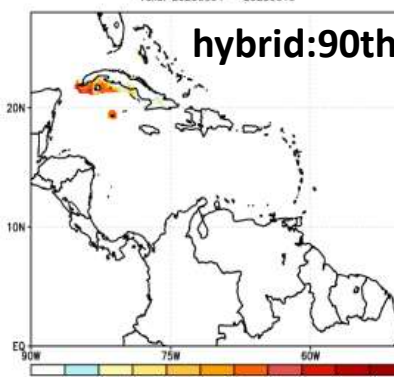
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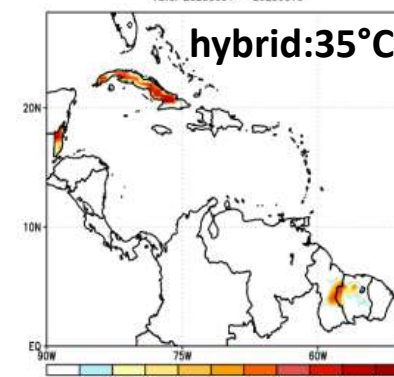
FS Week-2 Tmax/HI hybrid exceedance Prob. > 33 deg. Cels., > 3 consec. da
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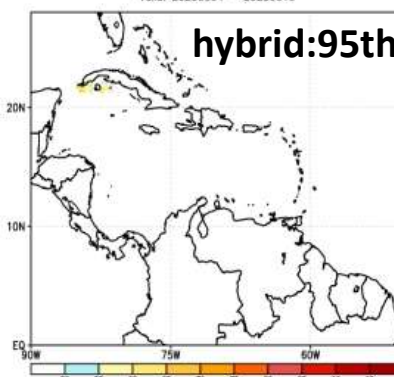
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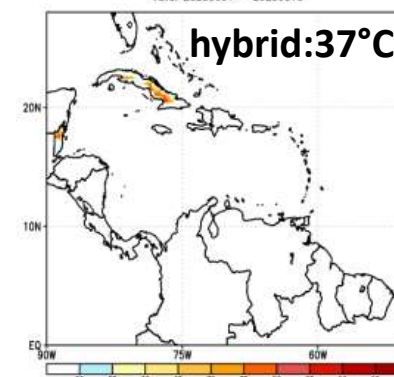
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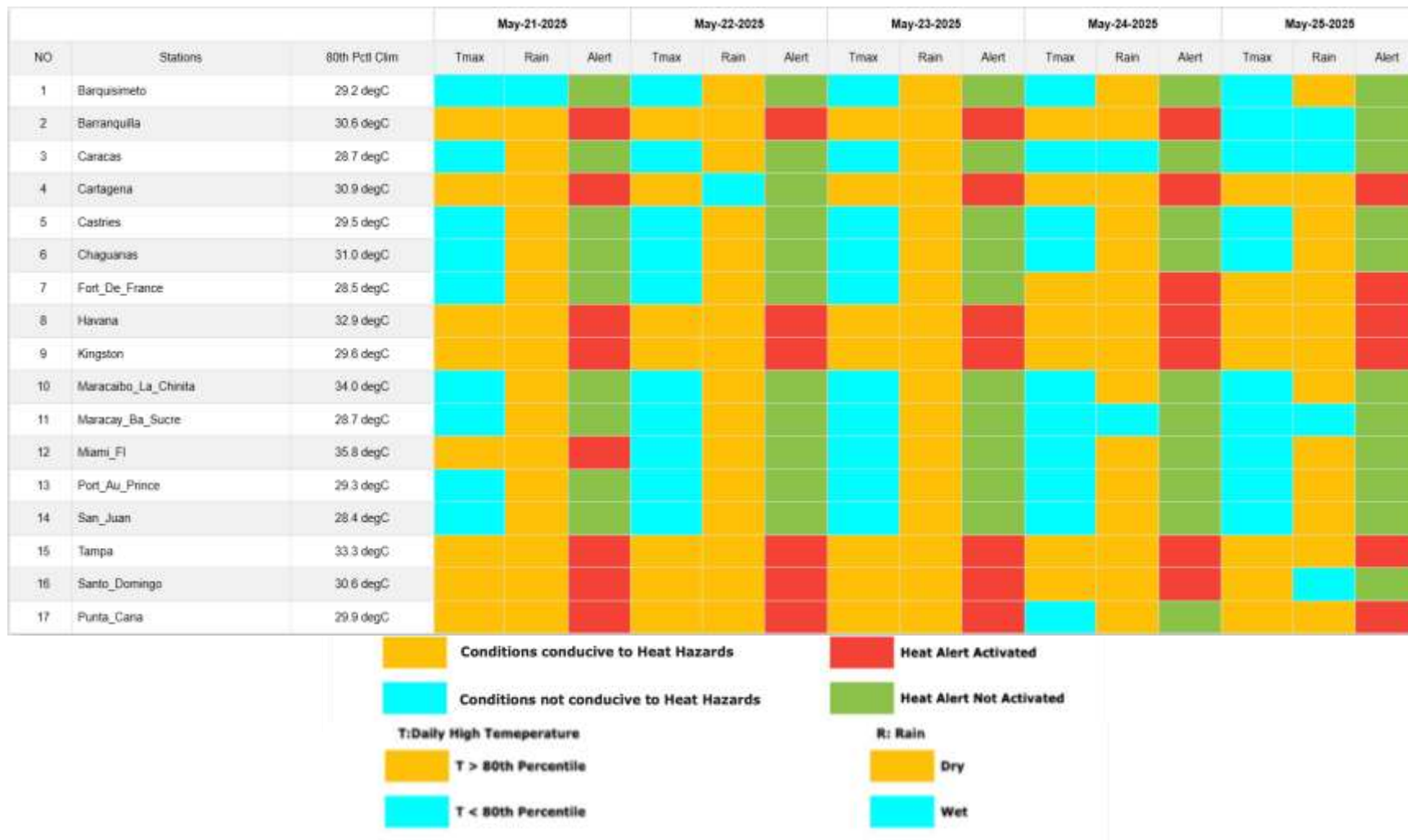


Urban Heat Island Alerts for Caribbean



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

Urban Heat Island Forecasts Week-1



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

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

		Week 2: 26May2025 - 01Jun2025				Week 3: 02Jun2025 - 08Jun2025				Week 4: 09Jun2025 - 15Jun2025			
NO	Stations	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_FI	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			



Conditions conducive to Heat Hazards



Conditions not conducive to Heat Hazards

T: Daily High Temperature



T > 80th Percentile



T < 80th Percentile



Heat Alert Activated



Heat Alert Not Activated

R: Rain



Dry

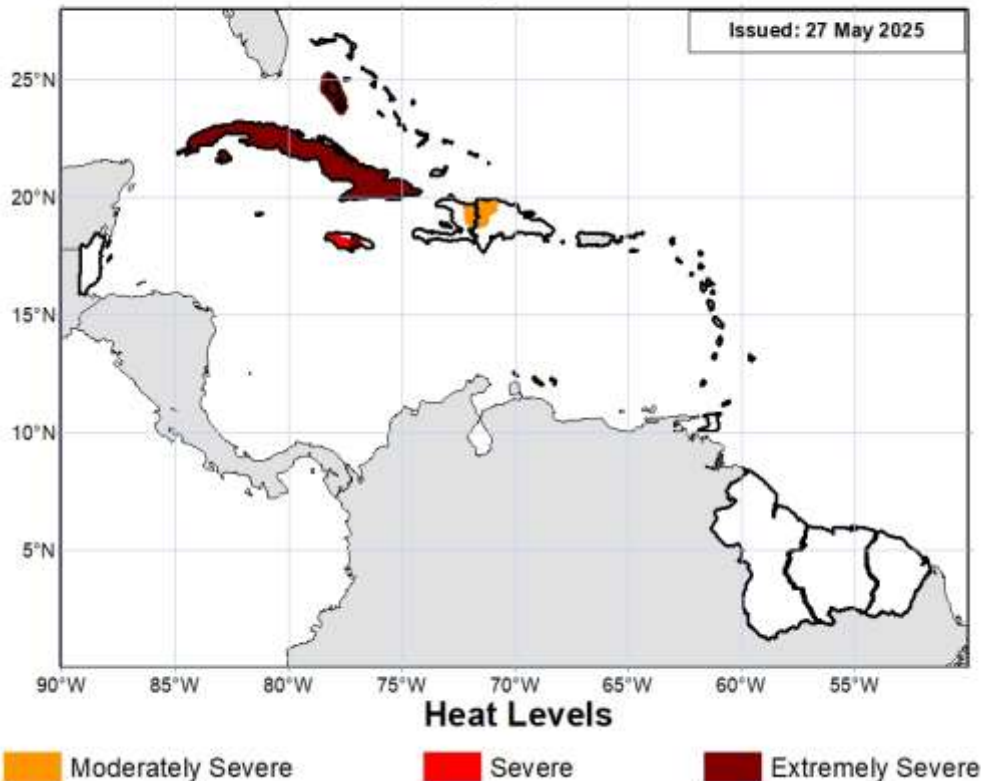


Wet

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: 28 May - 03 June 2025



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

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: 28 May - 03 June 2025

Issued: 27 May 2025



Heat Levels

Moderately Severe

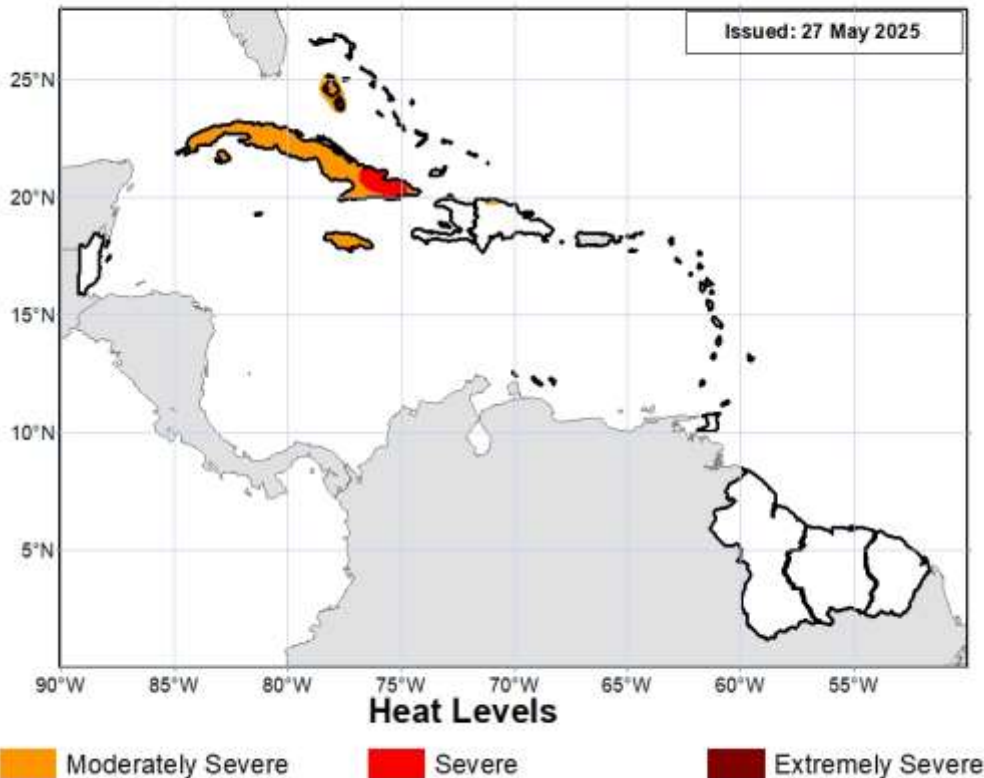
Severe

Extremely Severe

There are no hazards forecast for week 1.

Week-2 Heat Hazards Outlook

Week-2 Caribbean Heat Hazard Outlooks
Valid: 04 - 10 June 2025



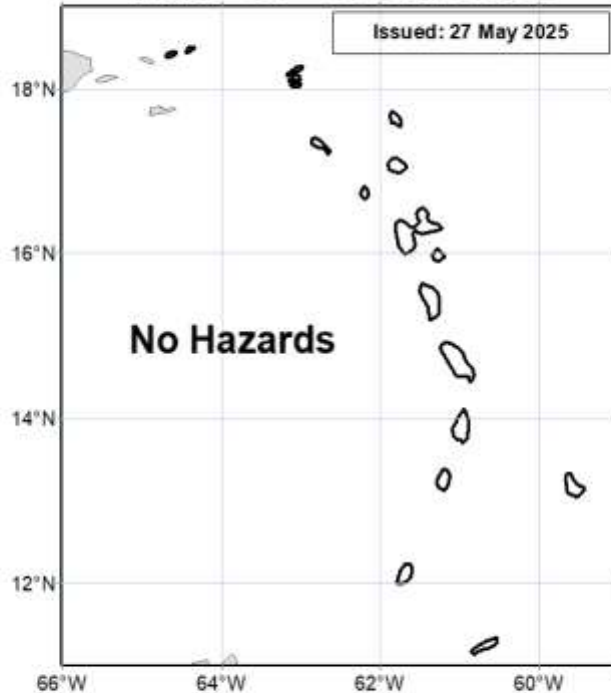
- There is an increased chance for **moderately severe heat** over Cuba, Cayman Islands, the Bahamas and Jamaica.
- There is an increased chance for **severe heat** exists over northwest of Cuba.

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: 04 - 10 June 2025

Issued: 27 May 2025



Heat Levels

Moderately Severe

Severe

Extremely Severe

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_Caribbean.html