

Sub-seasonal to Seasonal (S2S) Forecast

(May 28 – June 10, 2025)

Presenter:

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LIVE via Zoom and DOST PAGASA Facebook and YouTube Channel

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OUTLINE

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What is Sub-seasonal to Seasonal (S2S) Forecasting?

Sources of Predictability of S2S (MJO)

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S2S Forecast

Summary

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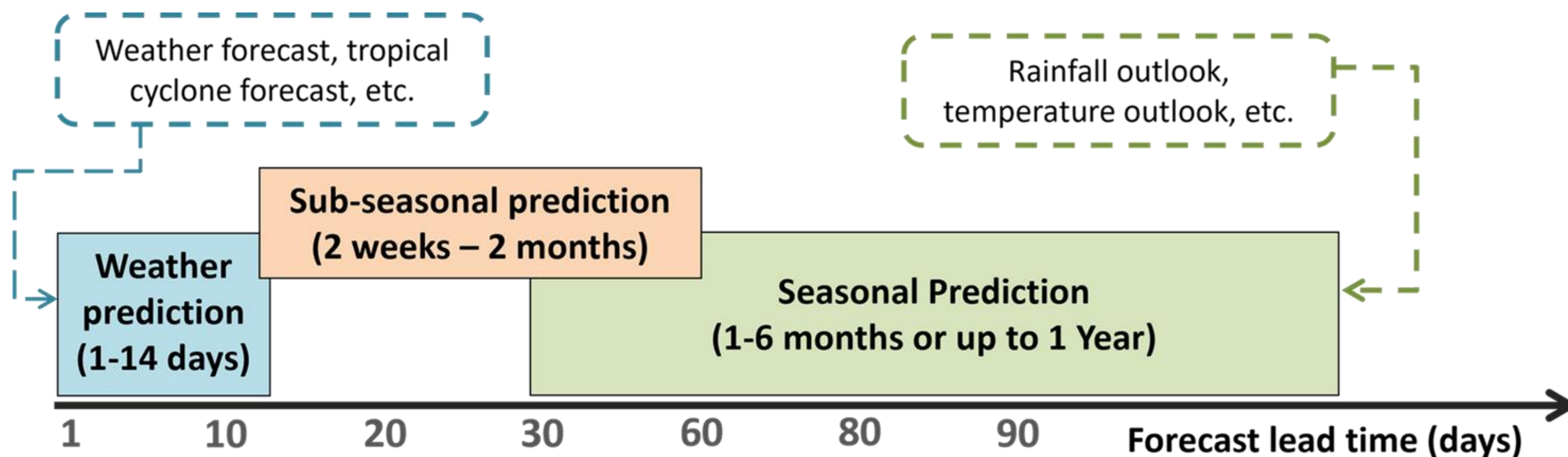


DOST



PAGASA
The Weather and Climate Authority

Sub-seasonal predictions contribute to fill the gap between weather and seasonal time scales

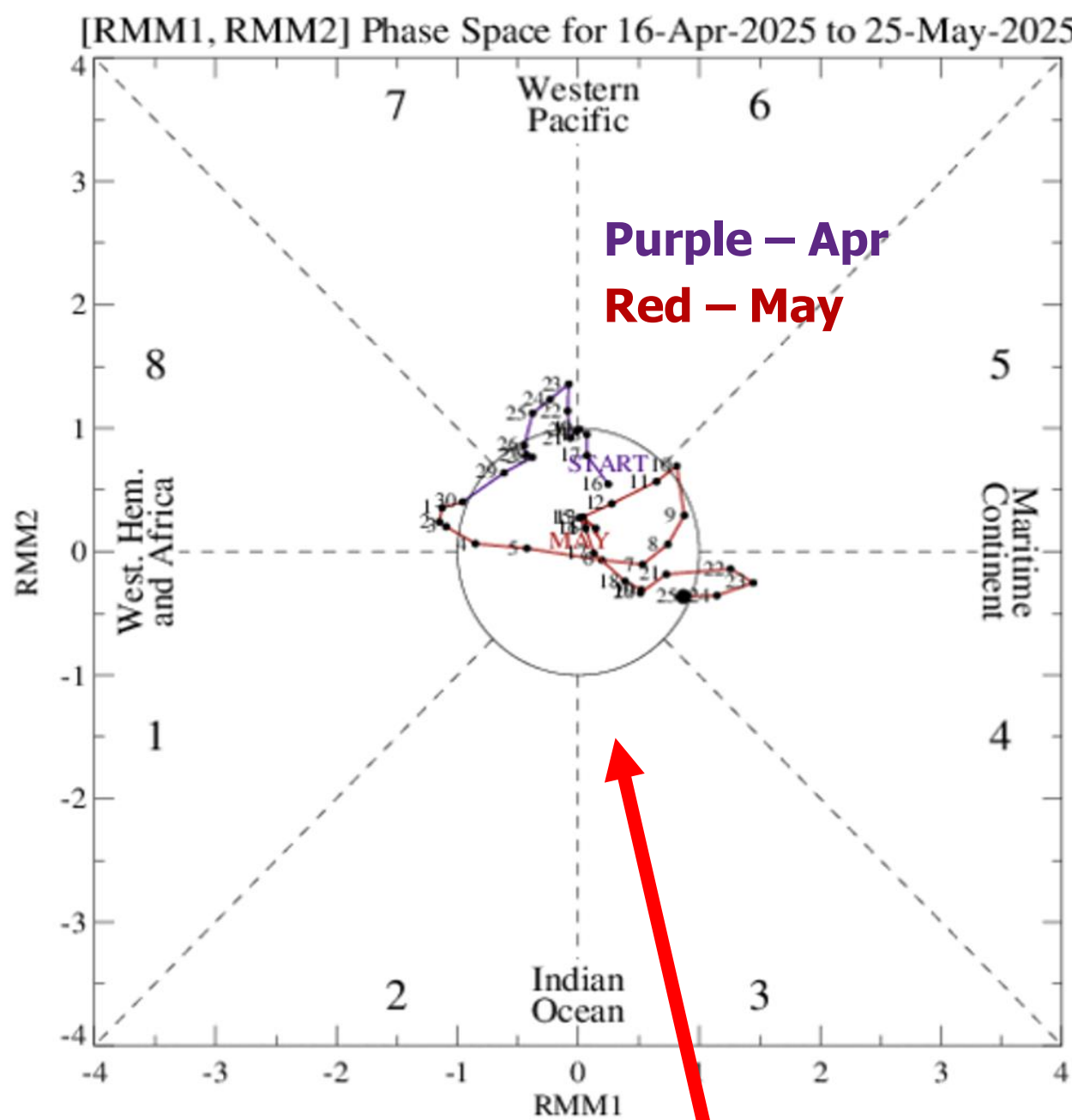


Source: WMO

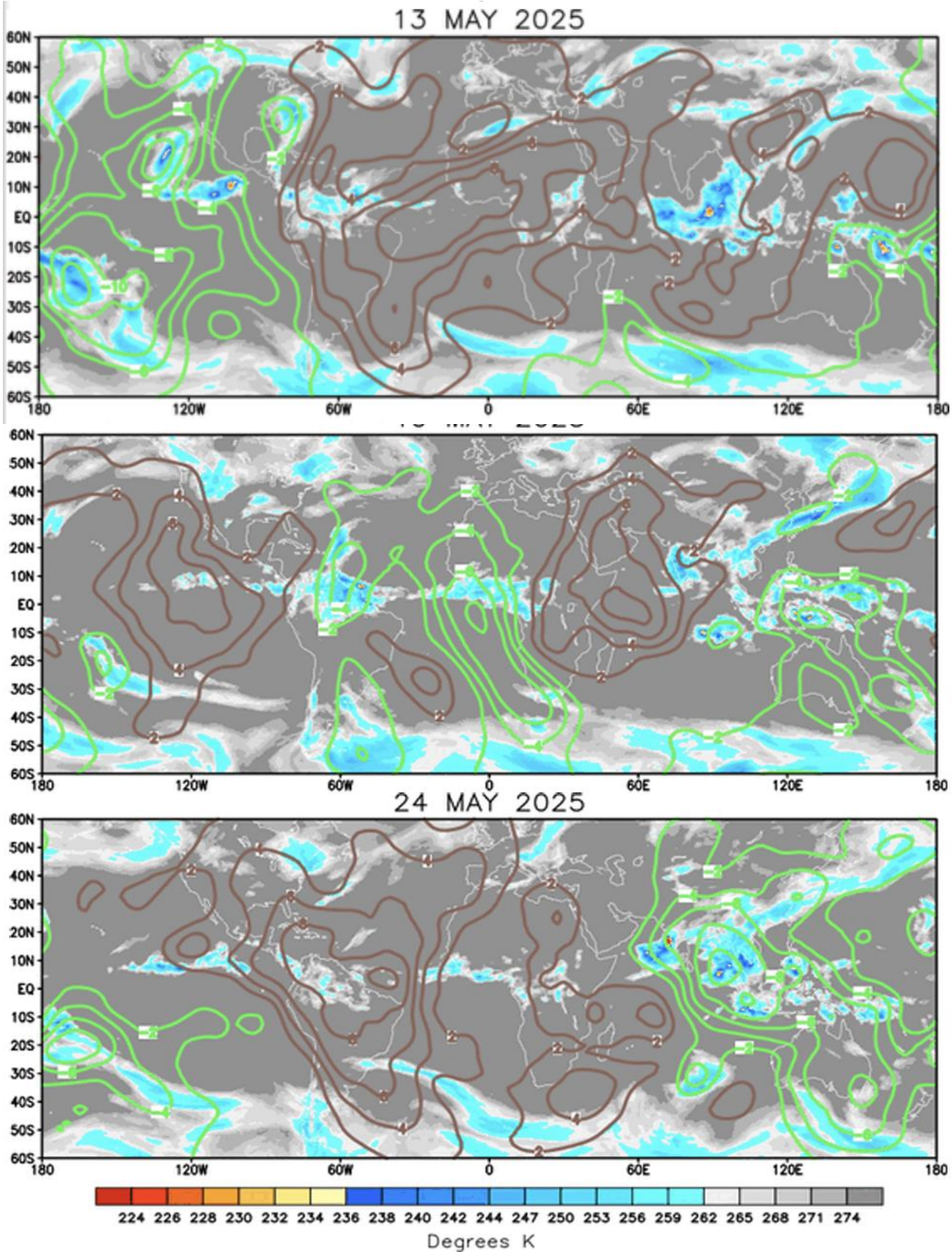
- time-averaged (i.e., pentad, weekly) climate forecast with timescales from 2 weeks up to ~2 months.
- goal is to improve the forecast skill and understanding on high impact weather events (i.e., rainfall, tropical cyclones)
- **Main sources of S2S predictability** : Madden-Julian Oscillation (MJO), ENSO

MJO Recent Evolution

MJO phase in the past 40 days



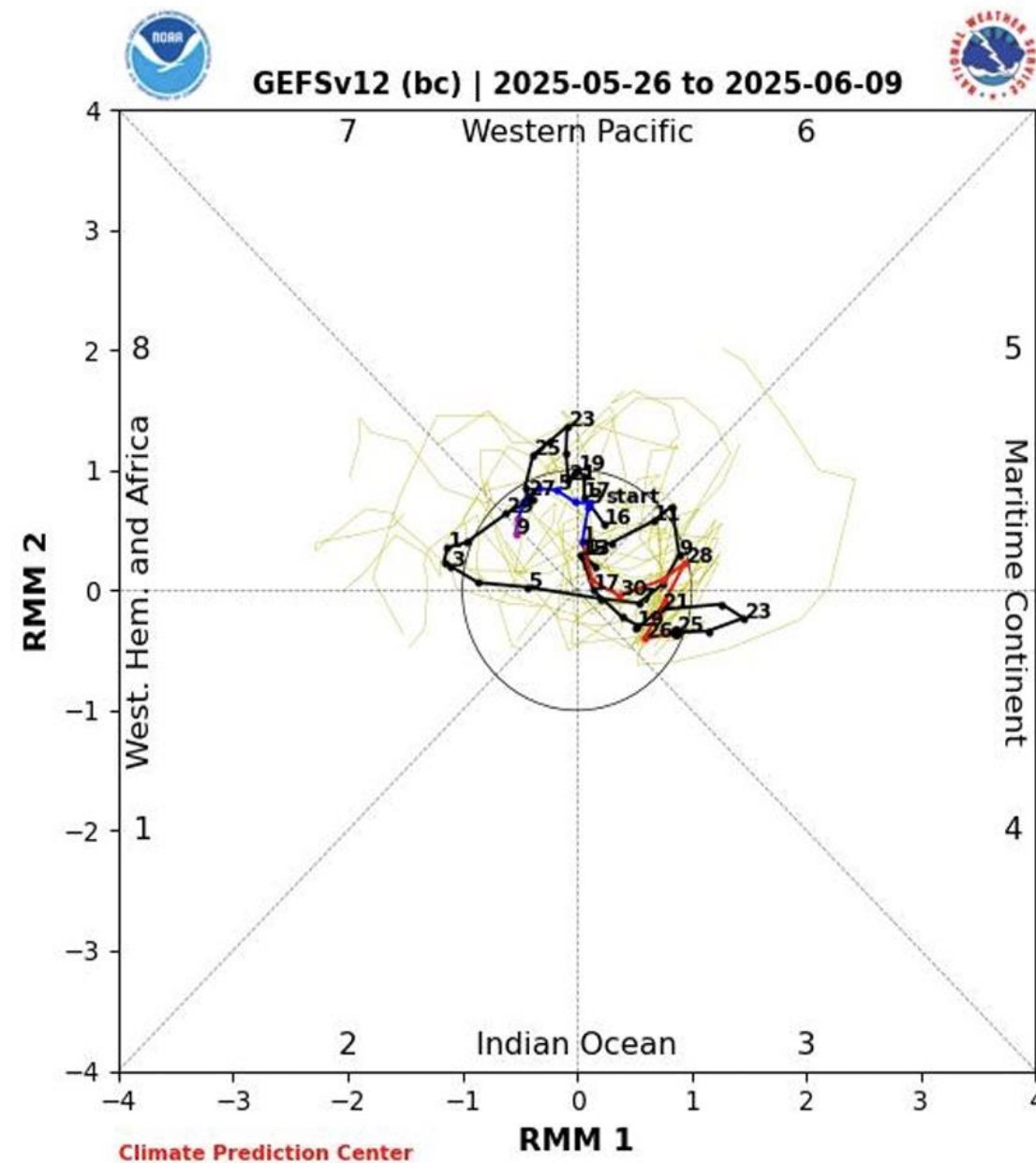
Green – Increased cloud formation (favorable for rainfall)
Brown – Less cloud formation (unfavorable for rainfall)



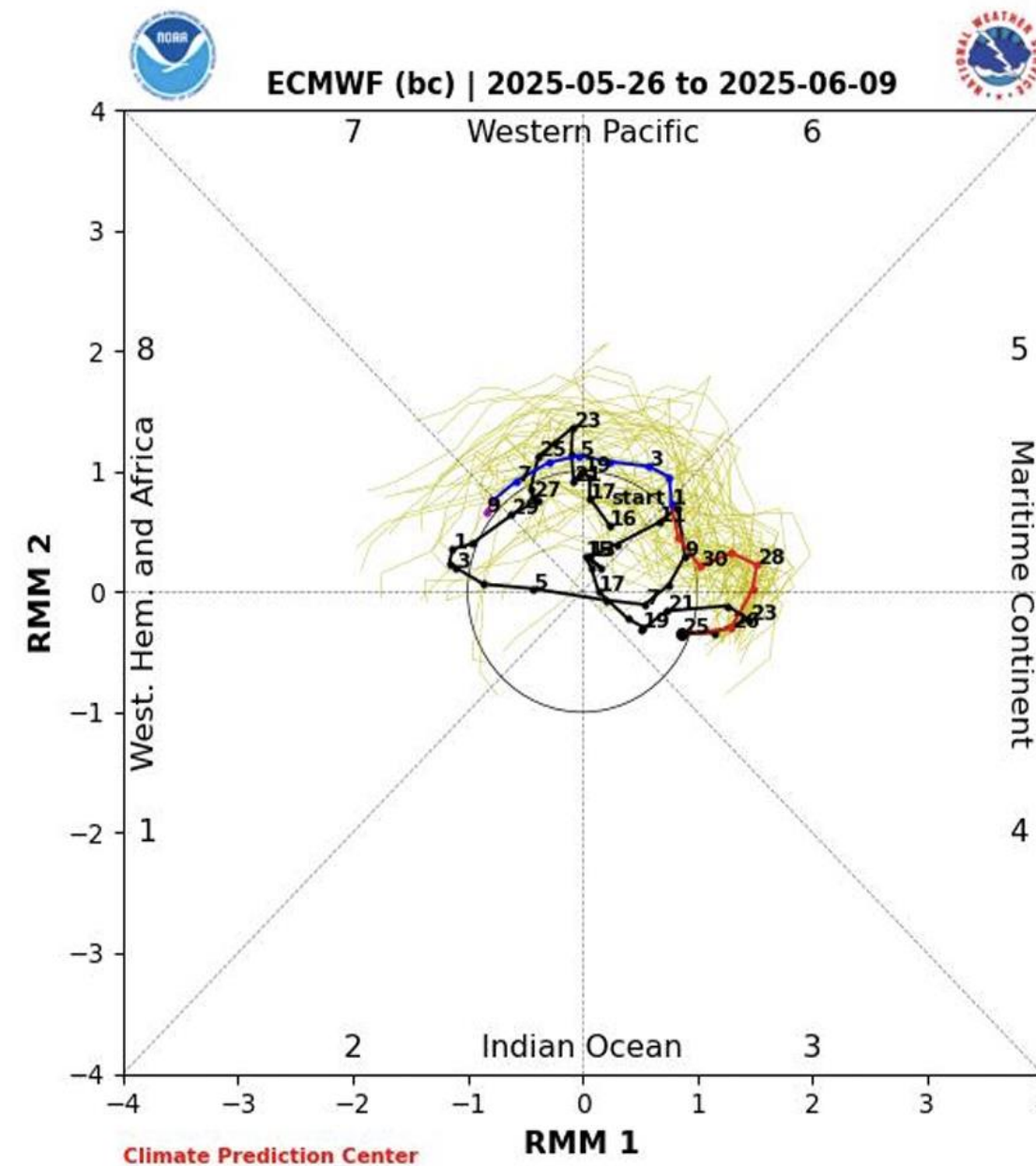
The MJO signal has mostly been weak during the past 40-day period.

MJO Forecast Evolution (May 26 – June 09, 2025)

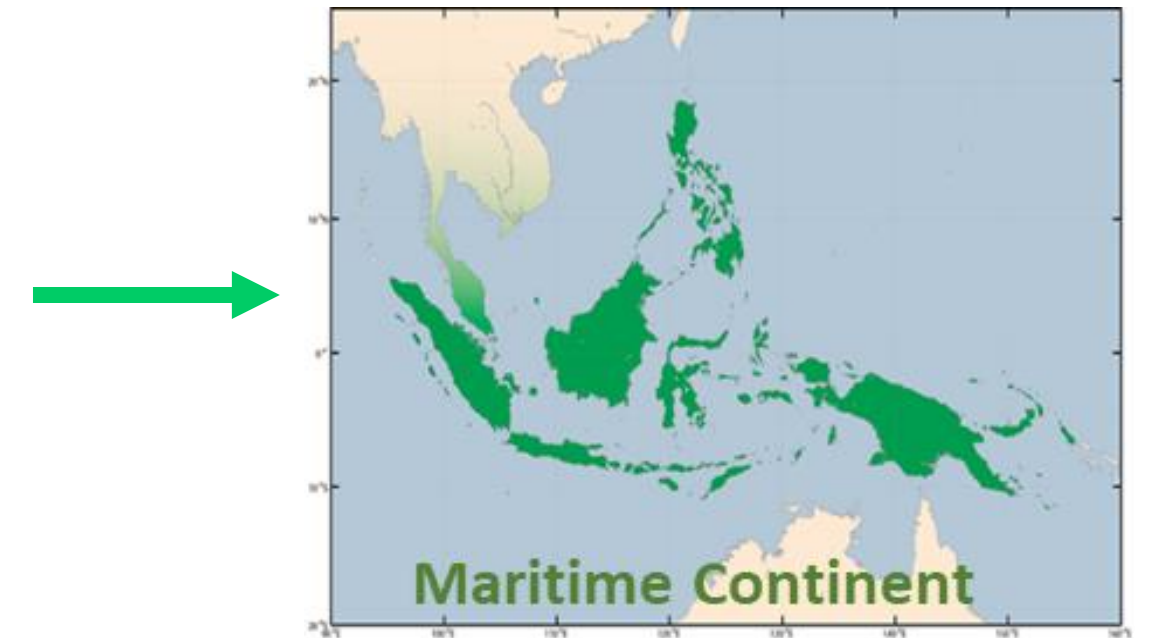
MJO phase forecast in the next 14 days



GEFS Forecast



ECMWF Forecast



There is general agreement in the dynamical model RMM forecasts depicting eastward propagation from phase 4 to phase 7-8 in the coming weeks. However, there is a lot of spread regarding signal strength and coherence.



Sub-seasonal to Seasonal (S2S) Climate Forecast

(May 28 – June 10, 2025)

1. **Tropical Cyclone (TC)**-Threat Potential Forecast
2. **Rainfall** Exceedance Probability Forecast
3. **Temperature** Anomaly Forecast

Tropical Cyclone (TC)-Threat Potential

Initialization: 27 May 2025 (8 PM)

Date Issued: 28 May 2025
Validity: Valid within the forecast period unless superseded by a succeeding forecast.

Forecast Summary:

Week-1 (May 28 – June 03, 2025)

- No TC-like vortex (TCLV) is present inside the PAR.
- Models indicate that a TCLV **1** will likely develop over the western portion of the PAR with a low chance of TC development during week-1.

Week-2 (June 04 - 10, 2025)

- Forecast indicates that TCLV **1** in the PMD, remains with a low likelihood of TC formation as it is forecasted to remain quasi-stationary over the western portion of the PAR.
- Models also indicate that a TCLV **2** will likely develop over to the northeastern portion of the country and is forecasted to move towards Japan.

Therefore, the **TC-THREAT POTENTIAL IS UNLIKELY** over the next two weeks.

However, any changes in the forecast pattern will be closely monitored, and updates will be issued as needed.

PMD: PAGASA Monitoring Domain
PAR: Philippine Area of Responsibility

TCAD: Tropical Cyclone Advisory Domain
TCID: Tropical Cyclone Information Domain

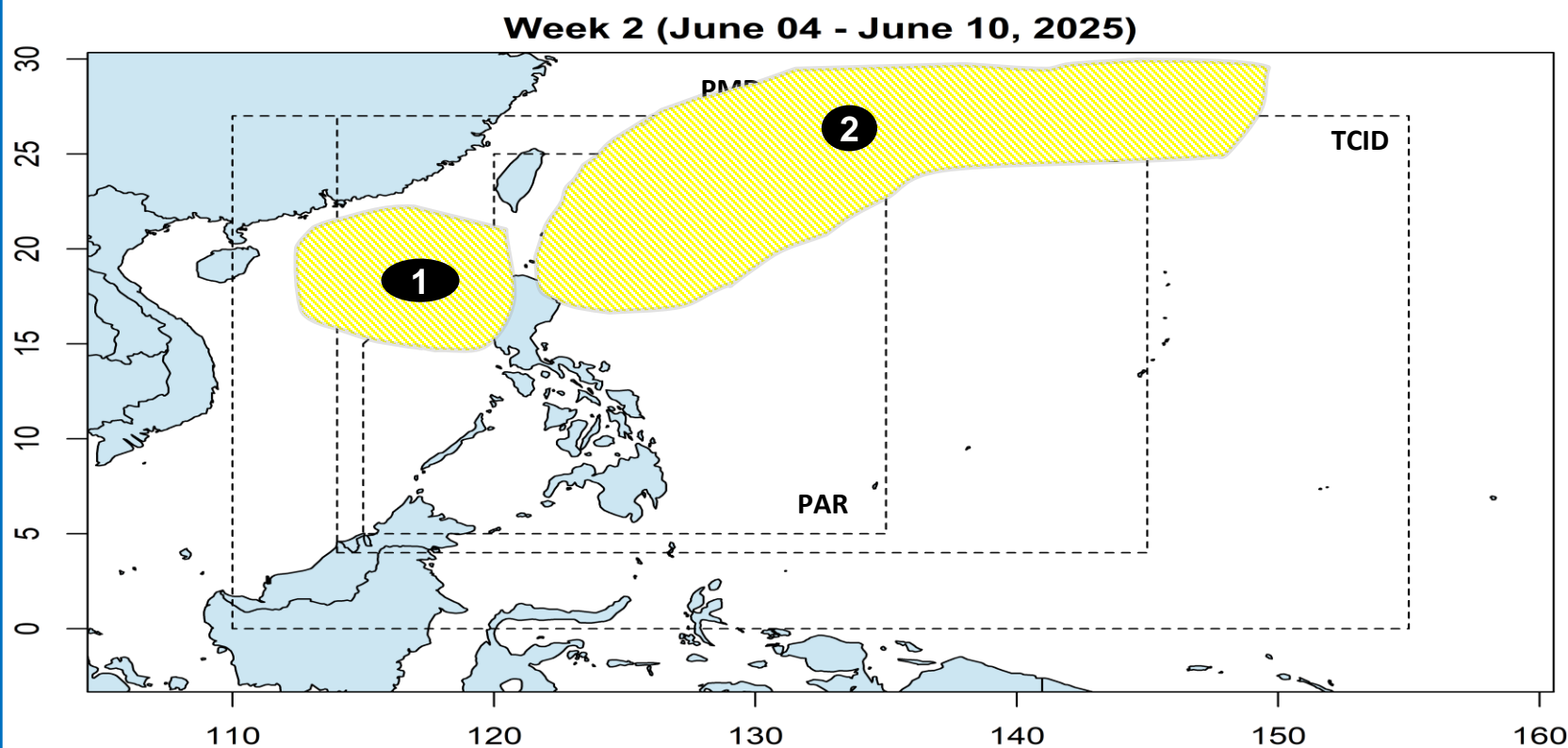
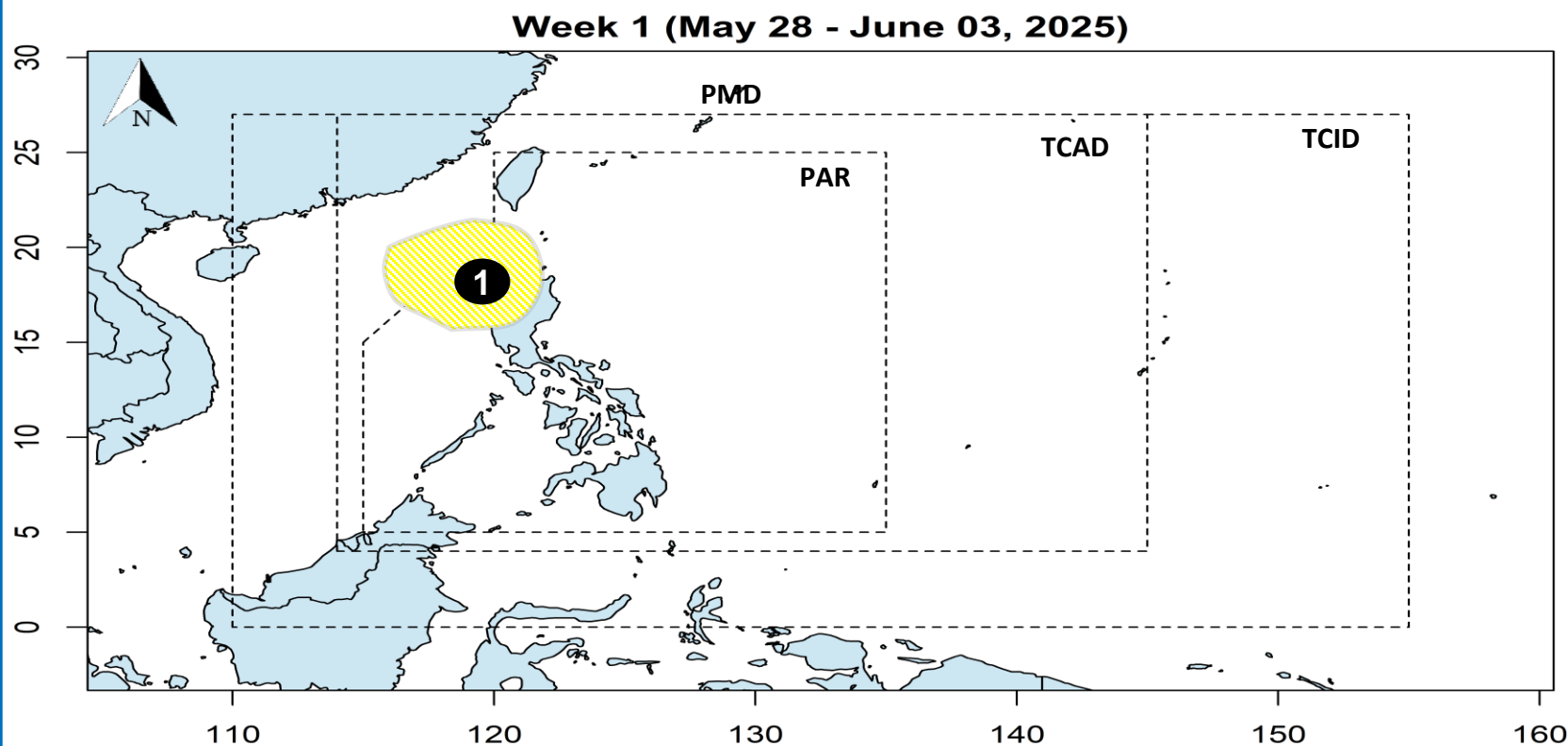
Note: The information contained here is based on the 6-hourly forecasts of the NCEP-GEFS issued in the past 24 hours. This is for guidance purposes only.

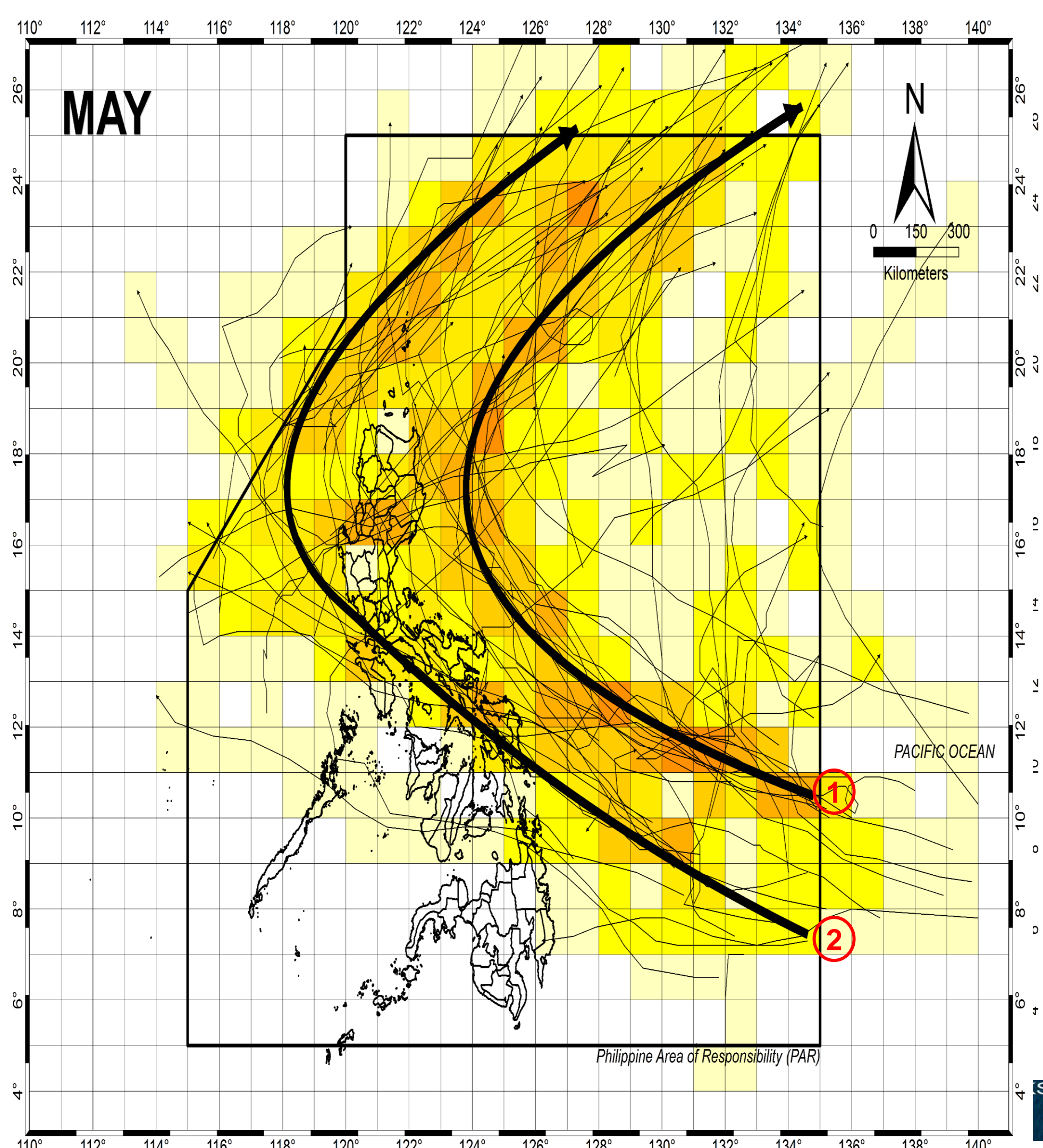
For Weather Updates, kindly refer to: www.pagasa.dost.gov.ph/weather



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Contact us at telephone no: (02) 8284-0800 loc. 4920/4921 or email: climps@pagasa.dost.gov.ph



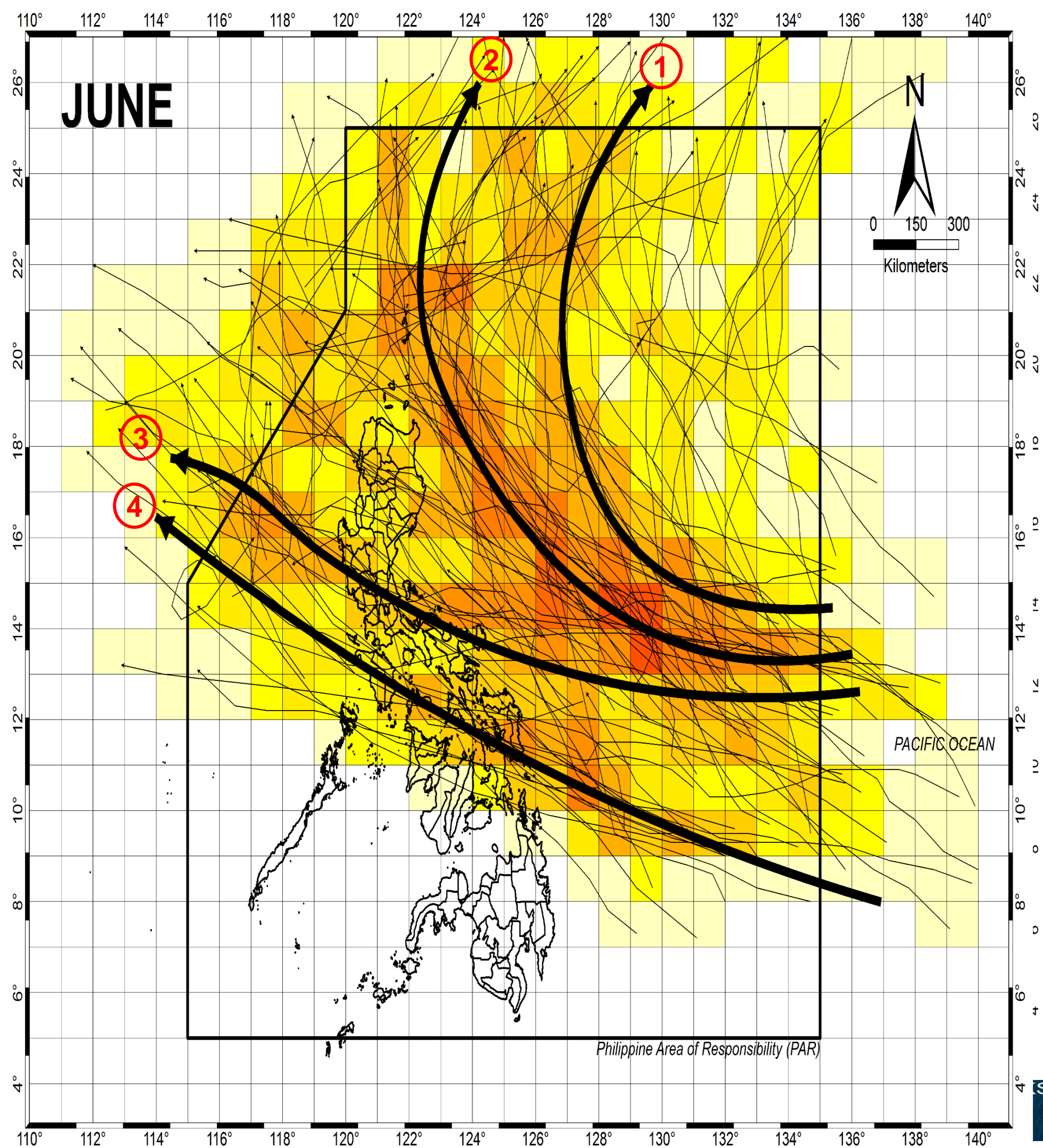


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Tropical Cyclone Climatological Tracks for May in the Philippine Area of Responsibility (PAR)

Climatological tracks for the month of May suggest 2 most common tracks of TC formation during this month:

1. TCs formed in the Western Pacific which may enter the PAR but recurve before making landfall.
2. TCs formed in the Western Pacific which may enter the PAR and make landfall in Central Philippines and move towards recurve afterwards before exiting PAR.



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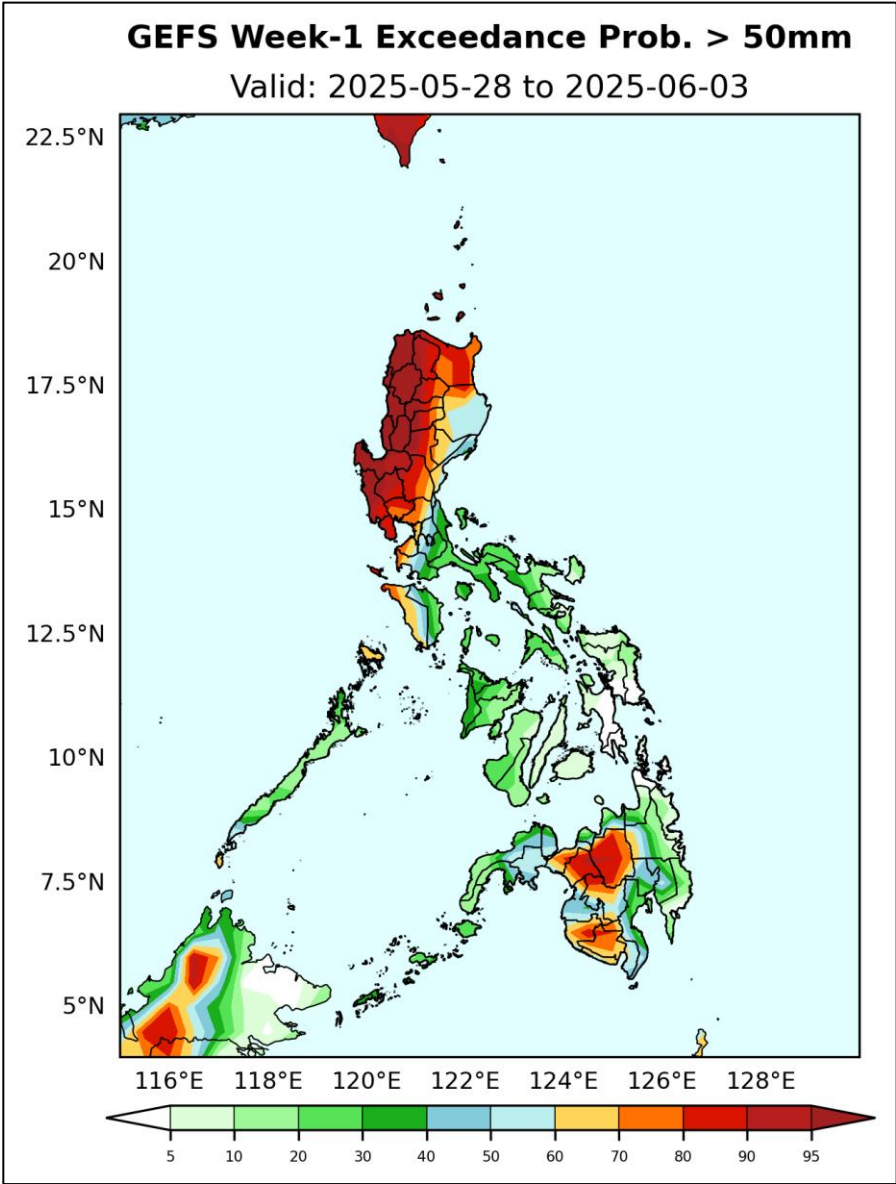
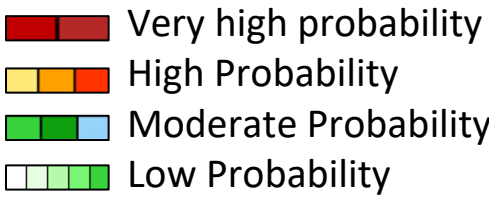
Tropical Cyclone Climatological Tracks for June in the Philippine Area of Responsibility (PAR)

Climatological tracks for the month of June suggest 4 most common tracks:

1. TCs that enter the PAR moving towards the Philippine landmass but recurve before making landfall (**non-landfalling**); moving toward Taiwan or Japan
2. TCs that enter the PAR but recurve afterwards (**non-landfalling**); moving toward Japan
3. **Landfalling** TCs traversing the southern part of Luzon island; moving toward northern Vietnam or Hongkong
4. **Landfalling** TCs traversing the eastern-northern parts of Visayas; moving toward northern Vietnam or Hongkong

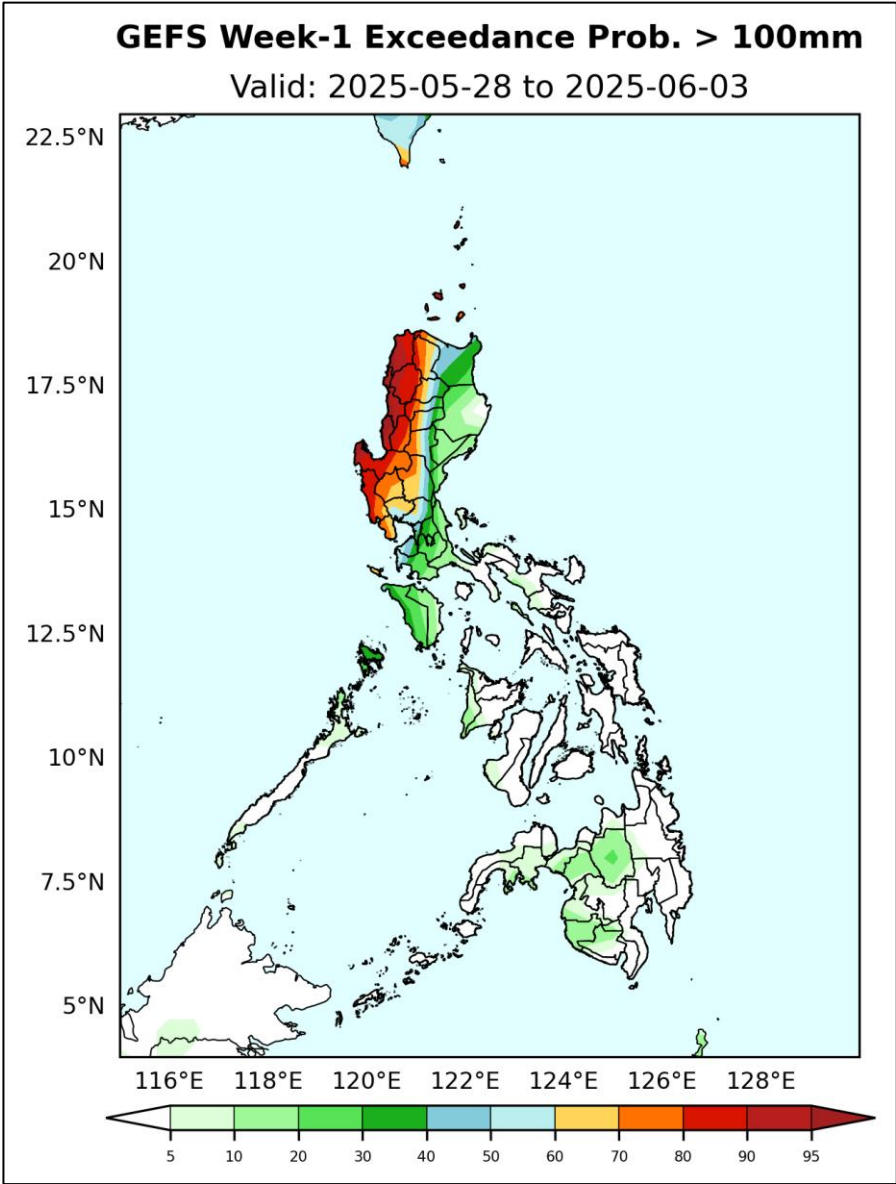
WEEK - 1: RAINFALL EXCEEDANCE PROBABILITY FORECAST

May 28 – June 03, 2025



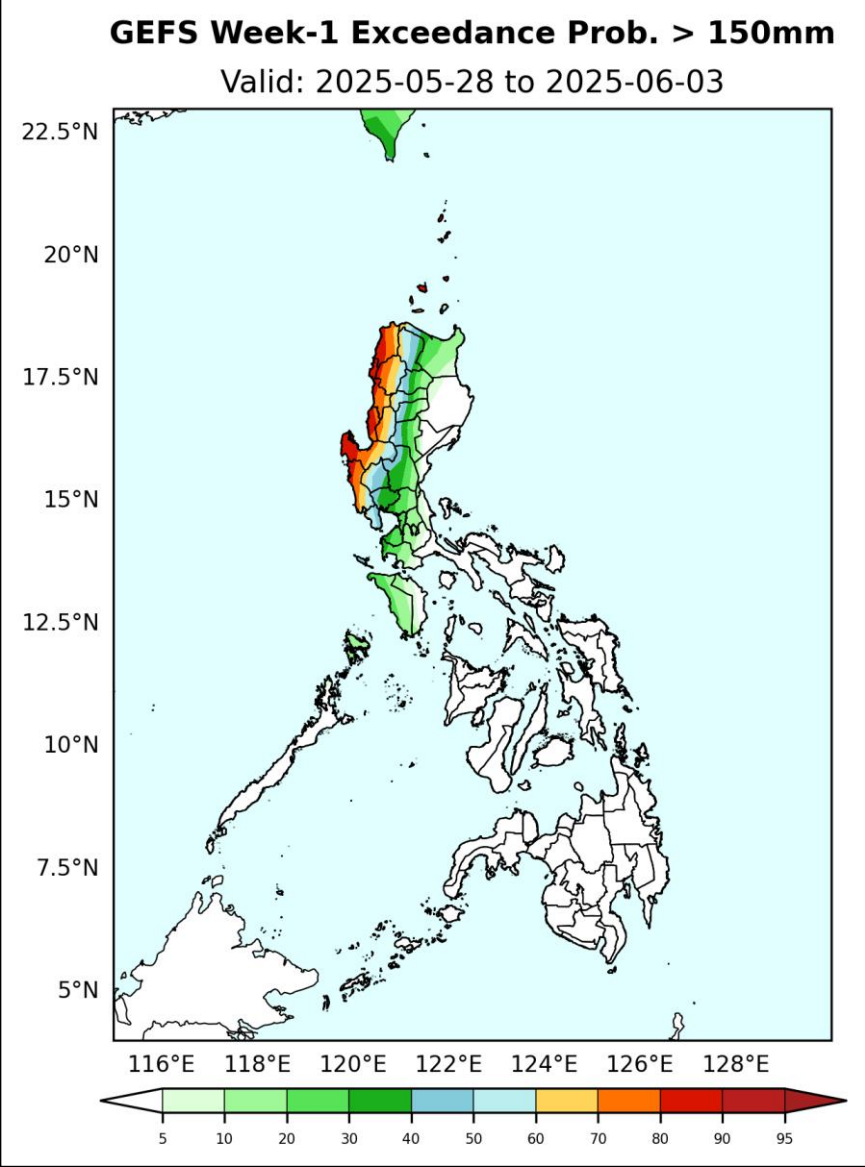
Probability to Exceed 50mm

- High to very high over the western section of Luzon
- Moderate to a high over the rest of Luzon and most parts of Mindanao;
- Low to moderate over Visayas and Eastern Mindanao.



Probability to Exceed 100mm

- High to very high over the western section of Northern and Central Luzon;
- Moderate to high over the rest of Northern and Central Luzon, NCR and Cavite;
- Low over the rest of the country.

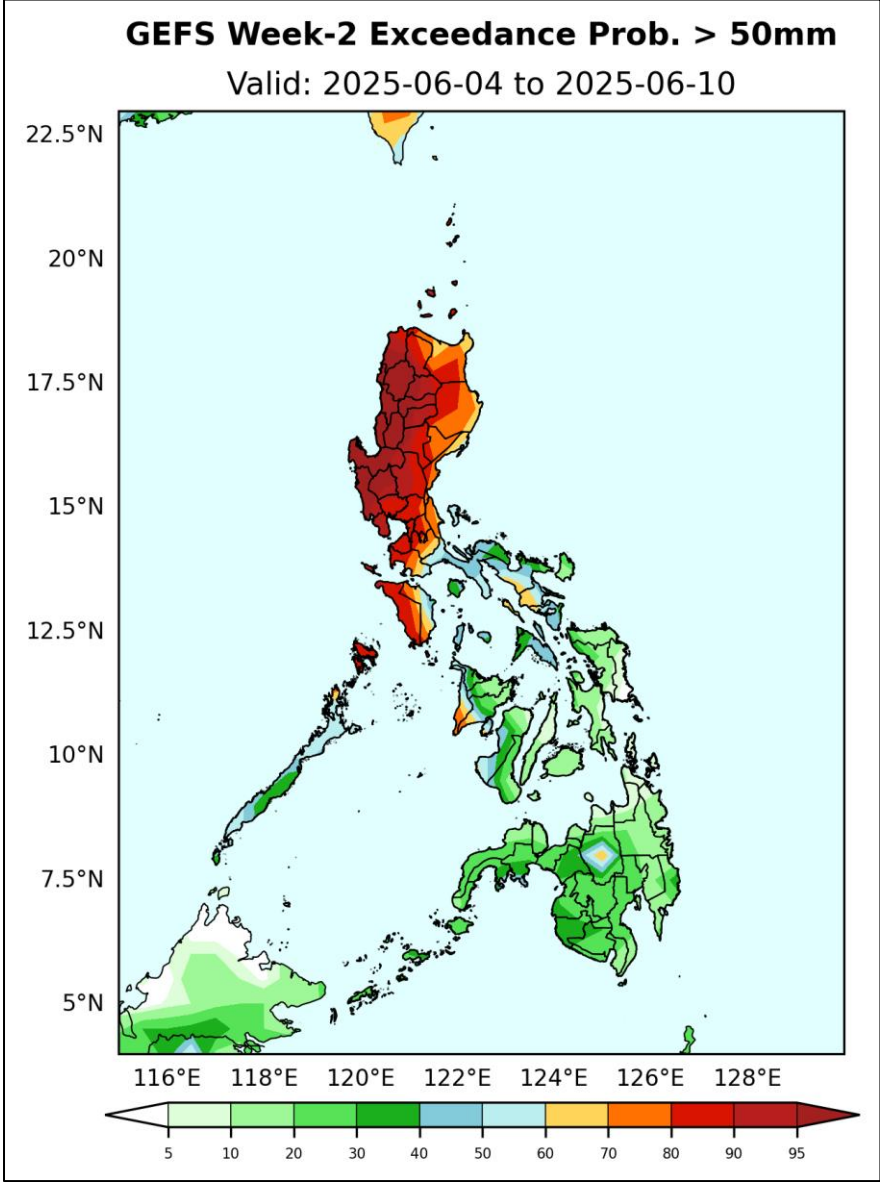
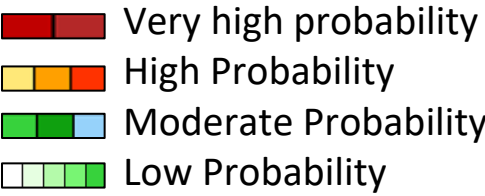


Probability to Exceed 150mm

- Moderate to high over the western section of Northern and Central Luzon;
- Low to moderate over the rest of CAR and Central Luzon;
- Low over the rest of the country.

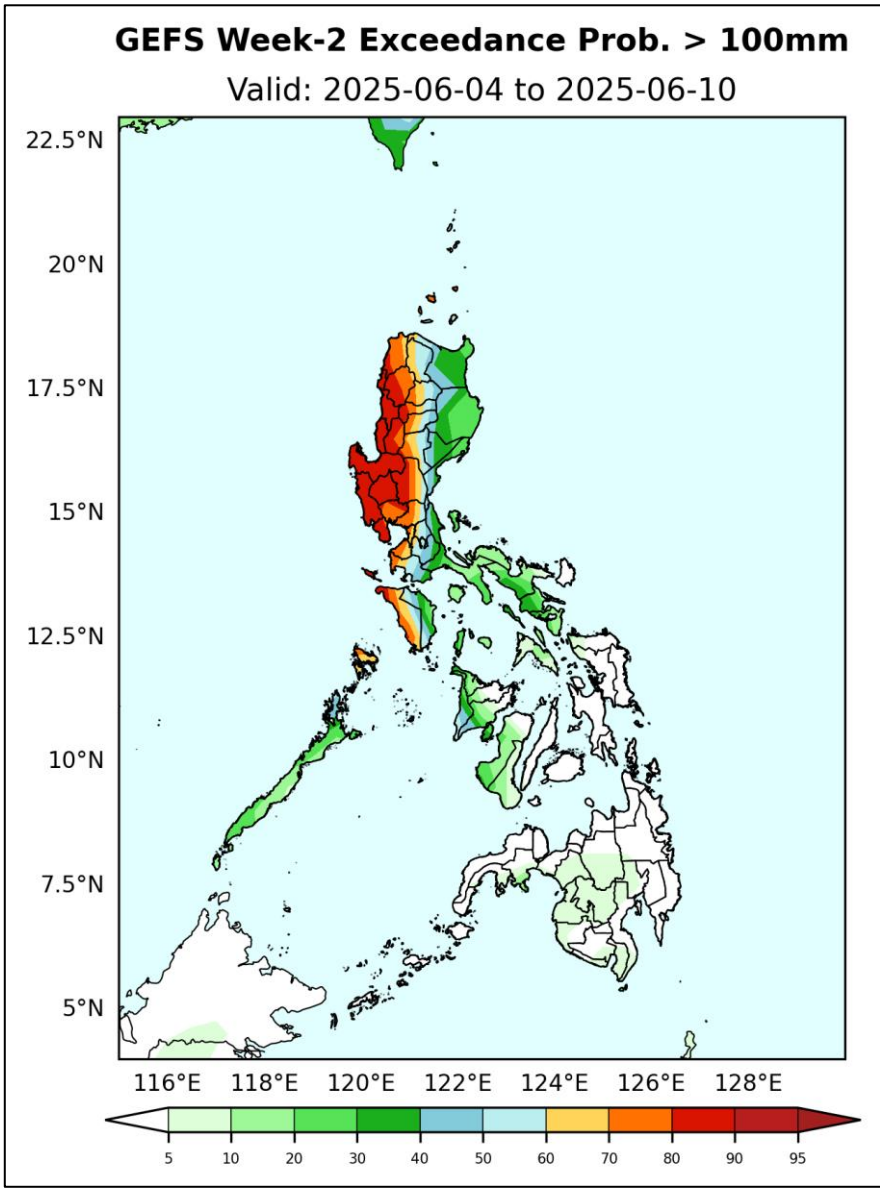
WEEK - 2: RAINFALL EXCEEDANCE PROBABILITY FORECAST

June 04 - 10, 2025



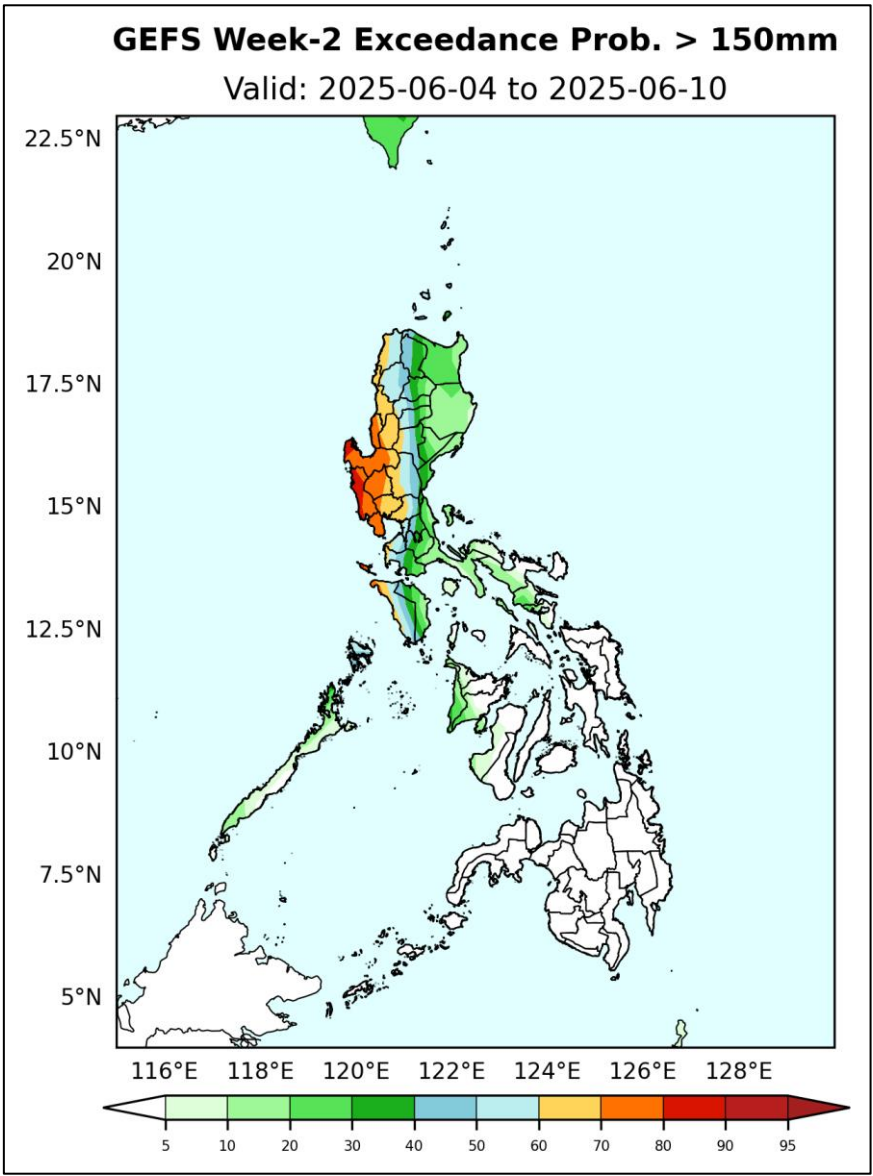
Probability to Exceed 50mm

- High to very high over most of Luzon;
- Moderate to a high over Oriental Mindoro, Bicol Region, western section of Panay and Bukidnon;
- Low to moderate over the rest of the country.



Probability to Exceed 100mm

- Moderate to high over most parts of Luzon;
- Low to moderate over the rest of Palawan, Bicol Region and Antique;
- Low over the rest of the country.



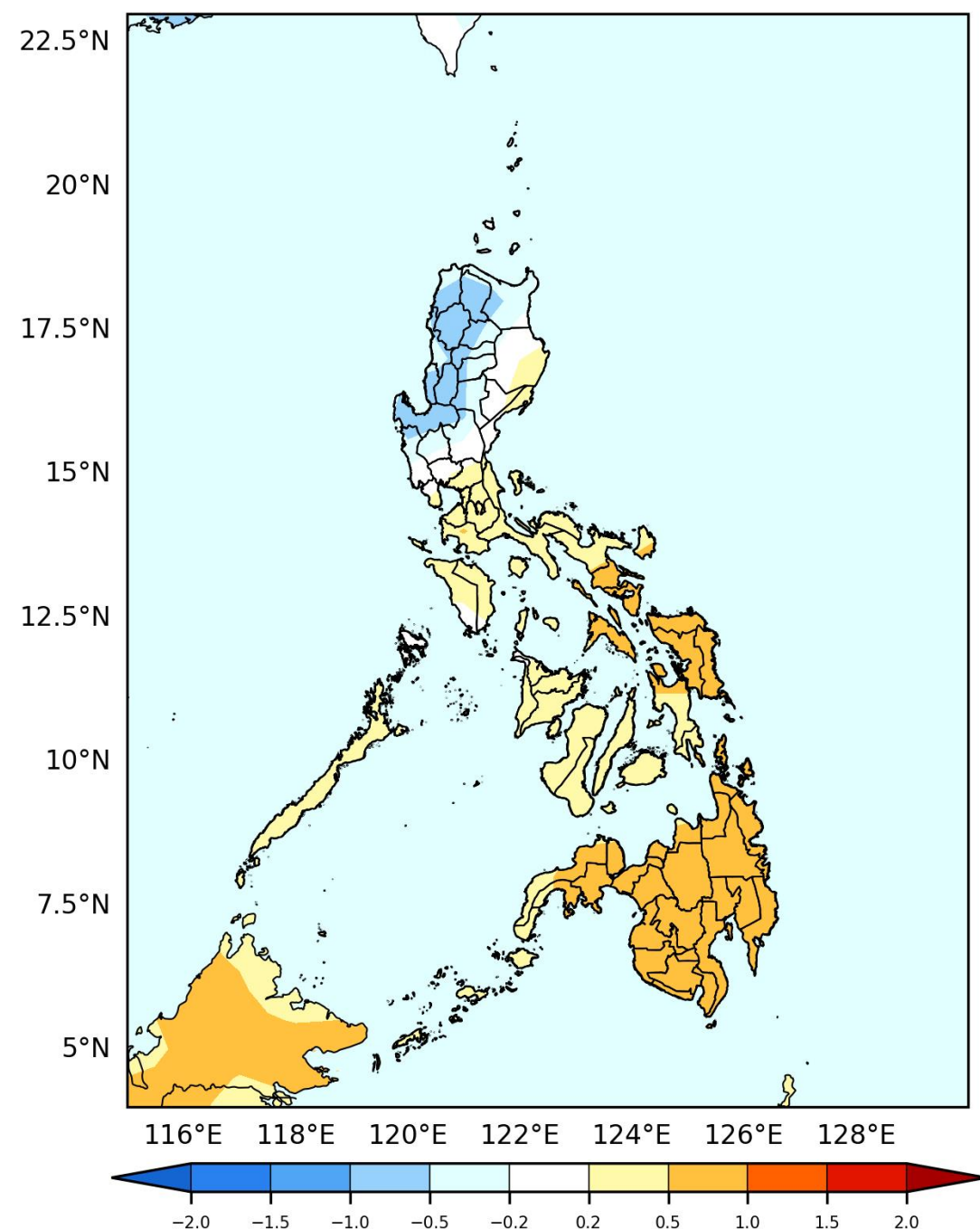
Probability to Exceed 150mm

- Moderate to high over most of Western and Central Luzon;
- Low to moderate over the rest of Luzon;
- Low over the rest of the country.

GEFS Week-1 & 2 Forecasts: T2m Anomaly

GEFS Week-1 T2m Anomaly

Valid: 2025-05-28 to 2025-06-03

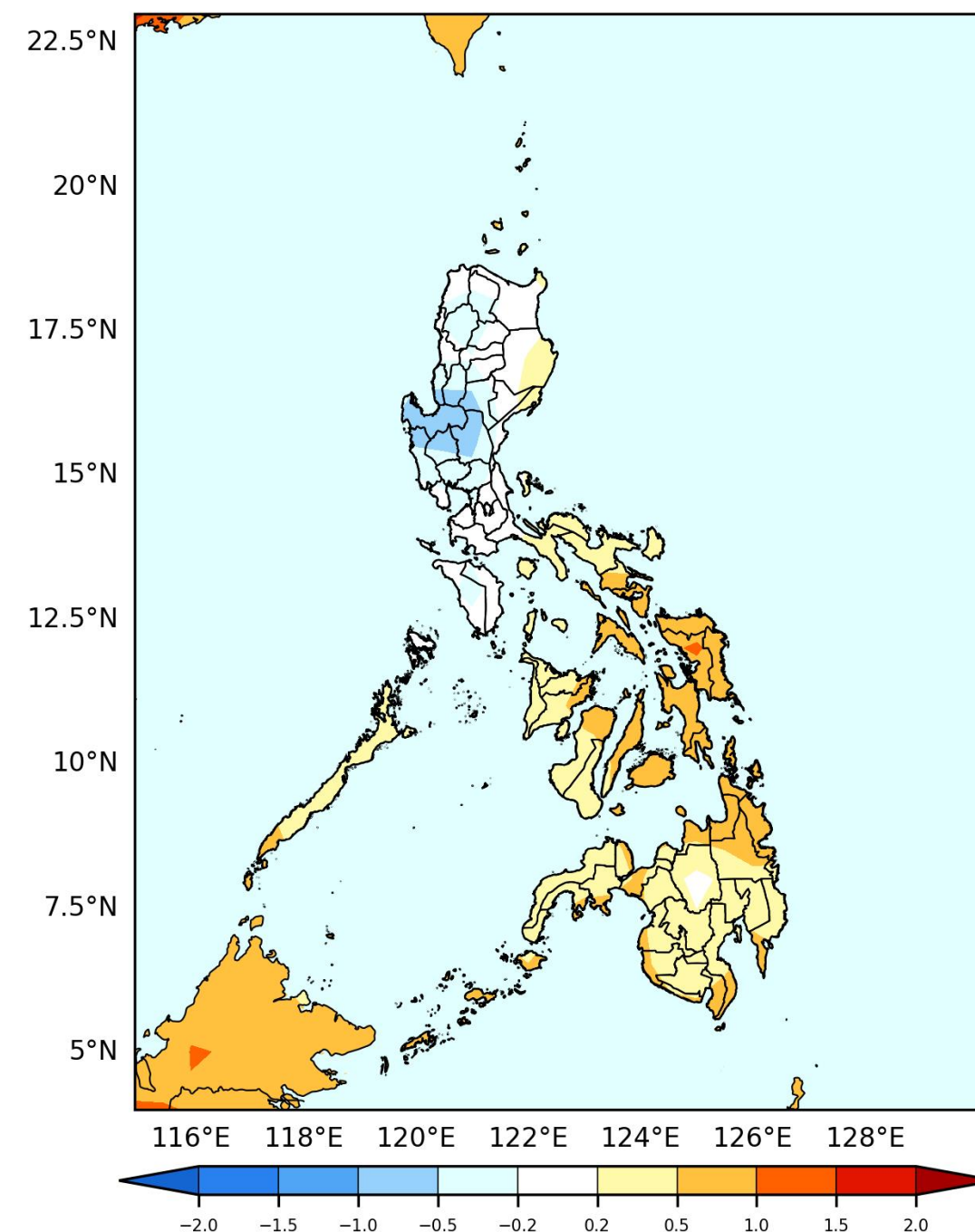


2m Temperature Week 1: May 28 – June 03, 2025

Slightly cooler to cooler than average surface air temperature will likely be experienced over the western section of Northern and Central Luzon while slightly warmer to warmer than average surface air temperature will likely be experienced for the rest of the country.

GEFS Week-2 T2m Anomaly

Valid: 2025-06-04 to 2025-06-10

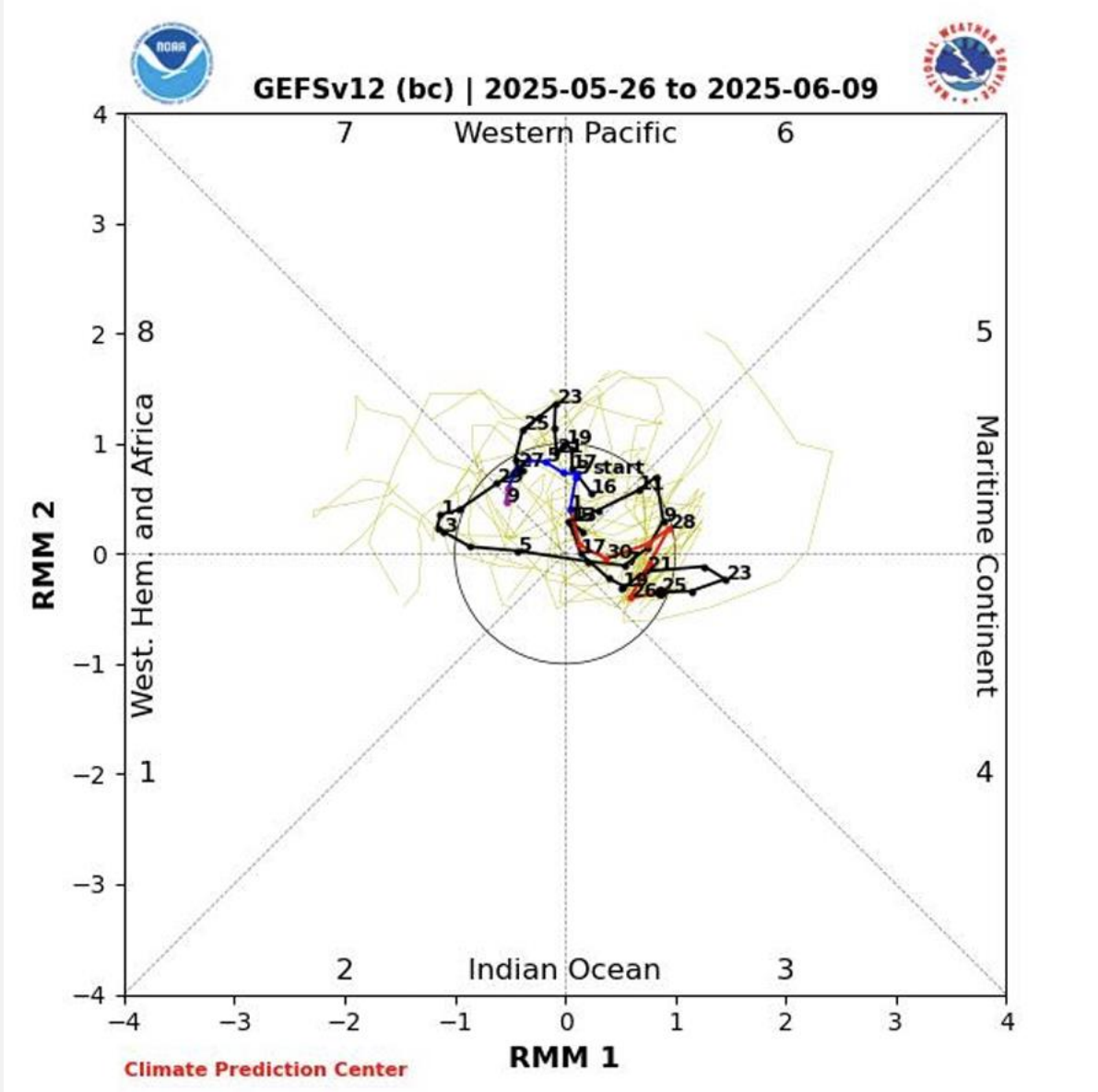


2m Temperature Week 2: June 04 – 10, 2025

Slightly cooler to cooler than average surface air temperature will likely be over Ilocos Region and Central Luzon while slightly warmer to warmer than average surface air temperature will likely be experienced for the rest of the country.

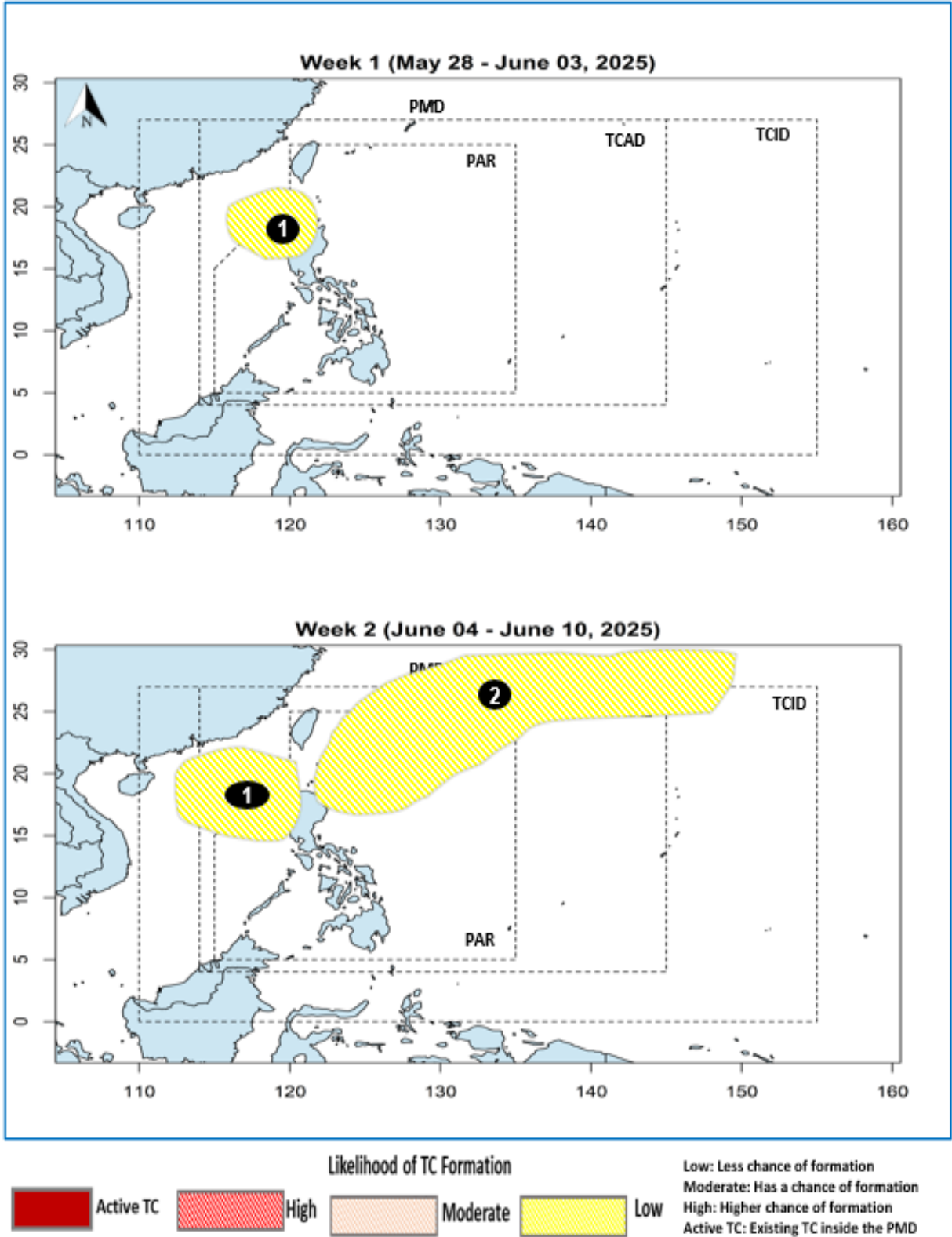
S2S OUTLOOK SUMMARY

CLIMATE DRIVERS



- GEFS model suggests shift from phase 4 to phase 7-8 over the next two weeks.

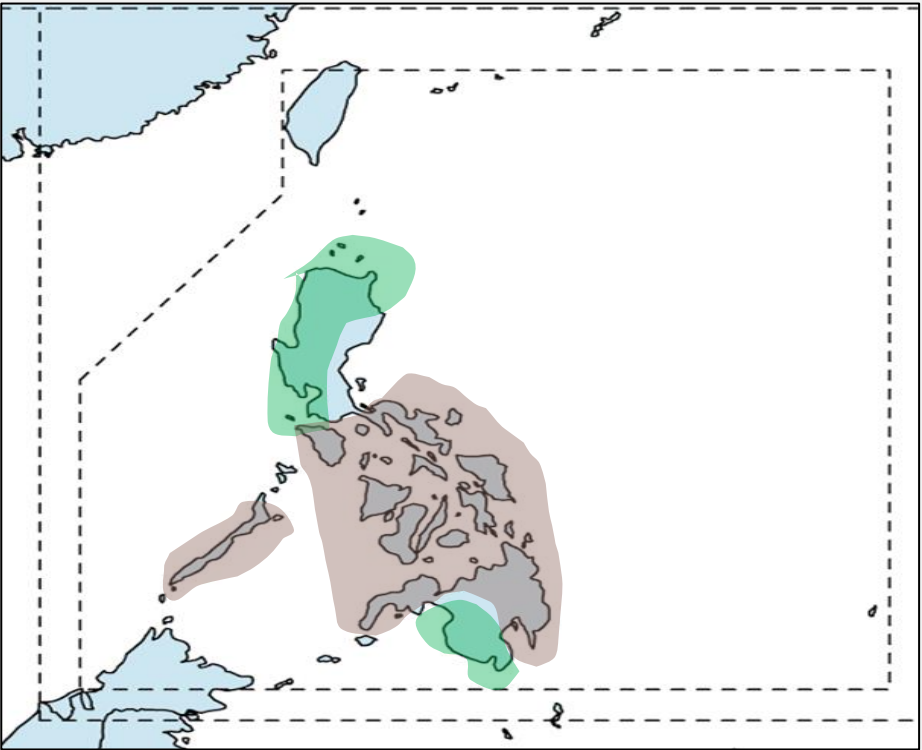
TC-THREAT POTENTIAL OUTLOOK



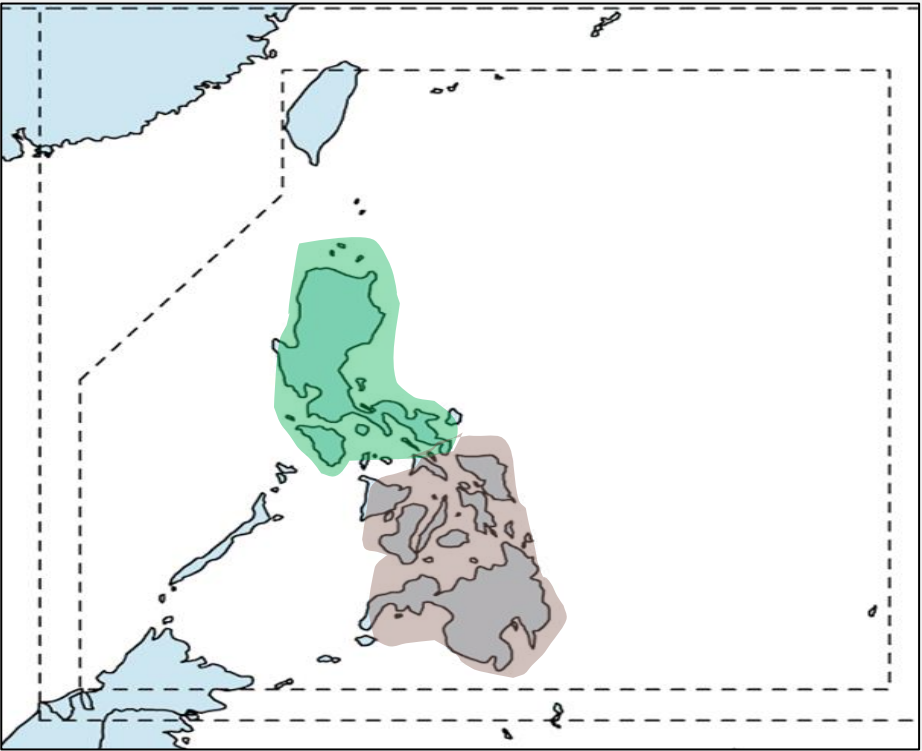
TC-THREAT POTENTIAL IS UNLIKELY
over the next two weeks.

RAINFALL OUTLOOK

Week-1: May 28 – June 03, 2025



Week-2: June 04 - 10, 2025

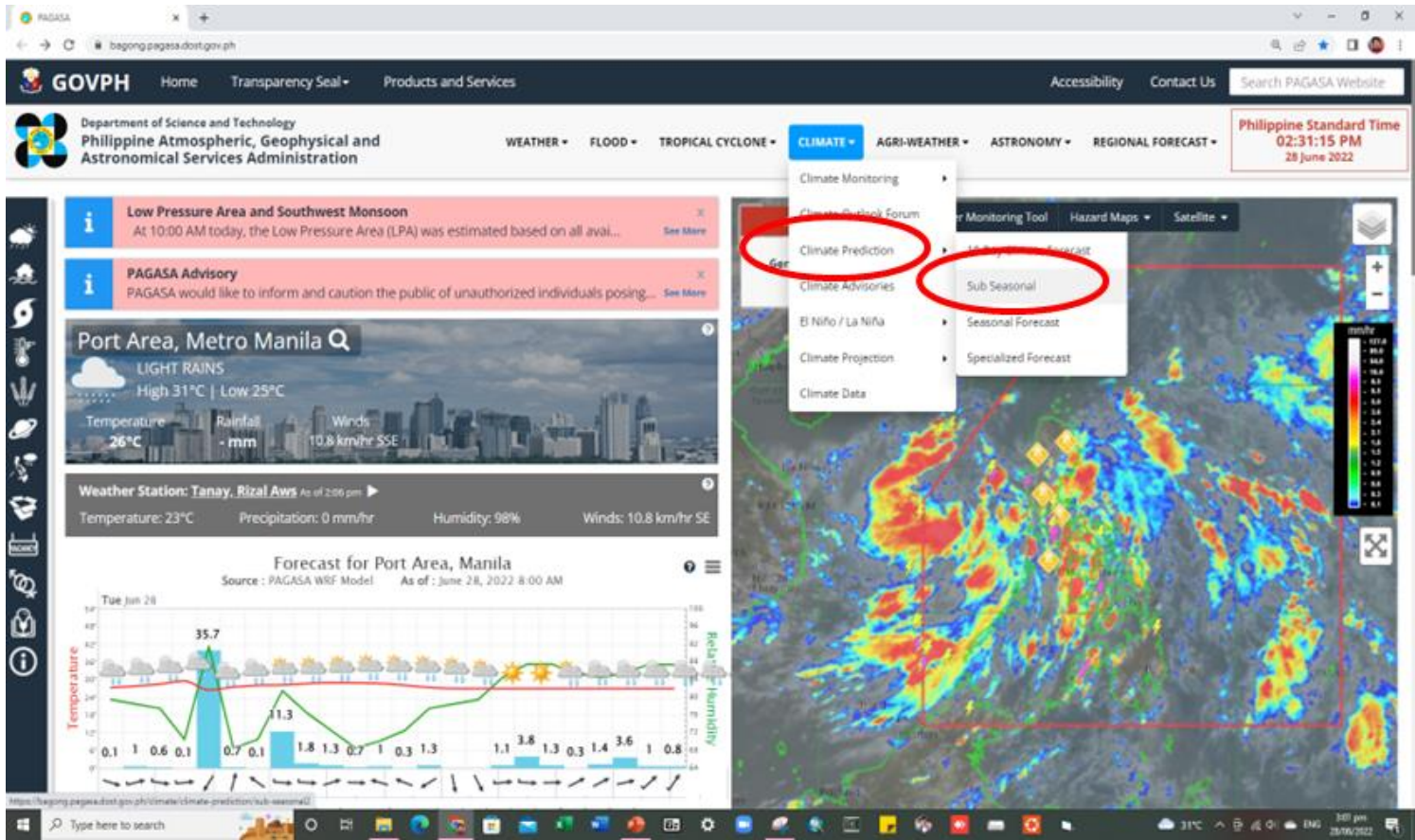
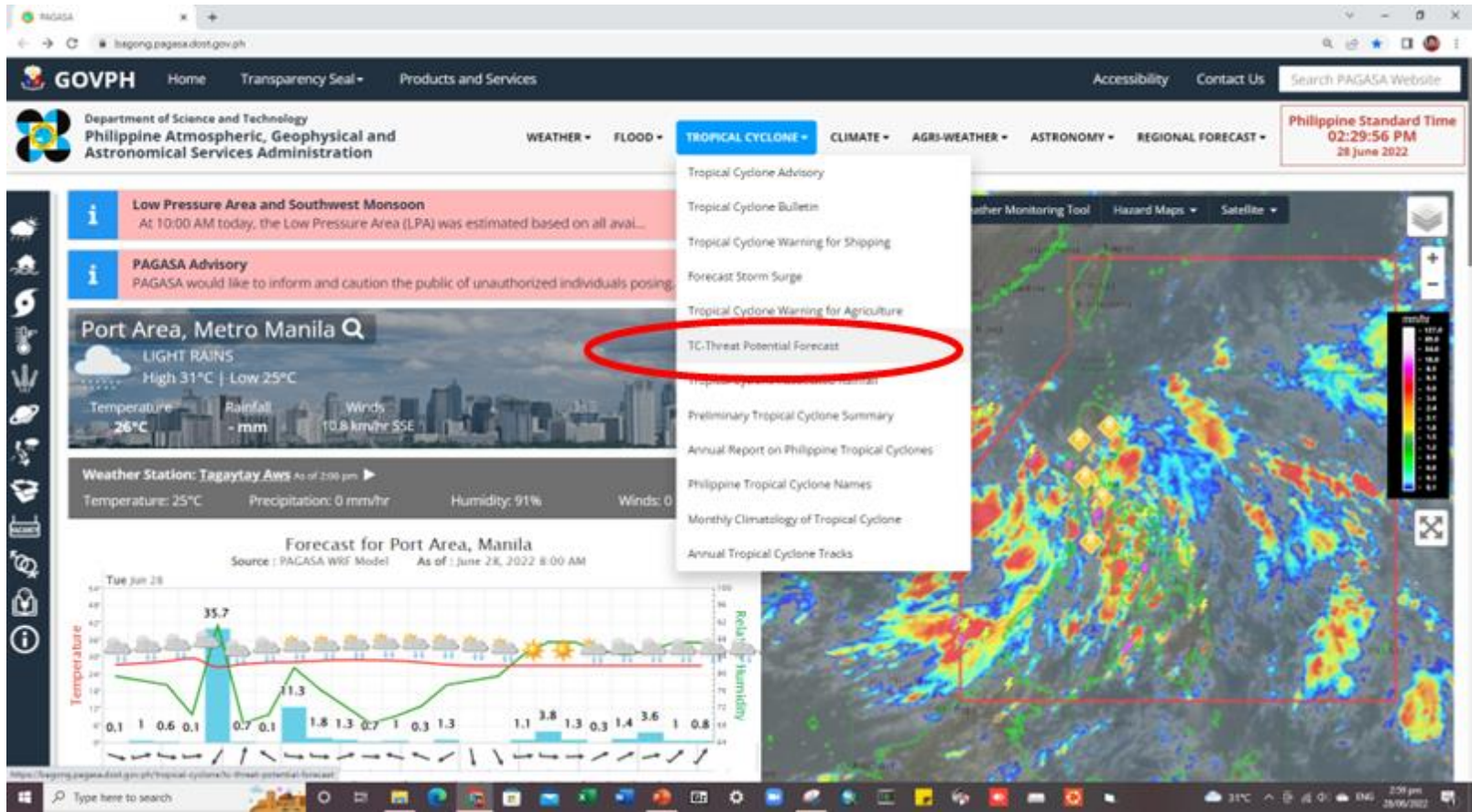


DRIER THAN USUAL

WETTER THAN USUAL

<https://bagong.pagasa.dost.gov.ph/tropical-cyclone/tc-threat-potential-forecast>

<https://bagong.pagasa.dost.gov.ph/climate/climate-prediction/sub-seasonal2>



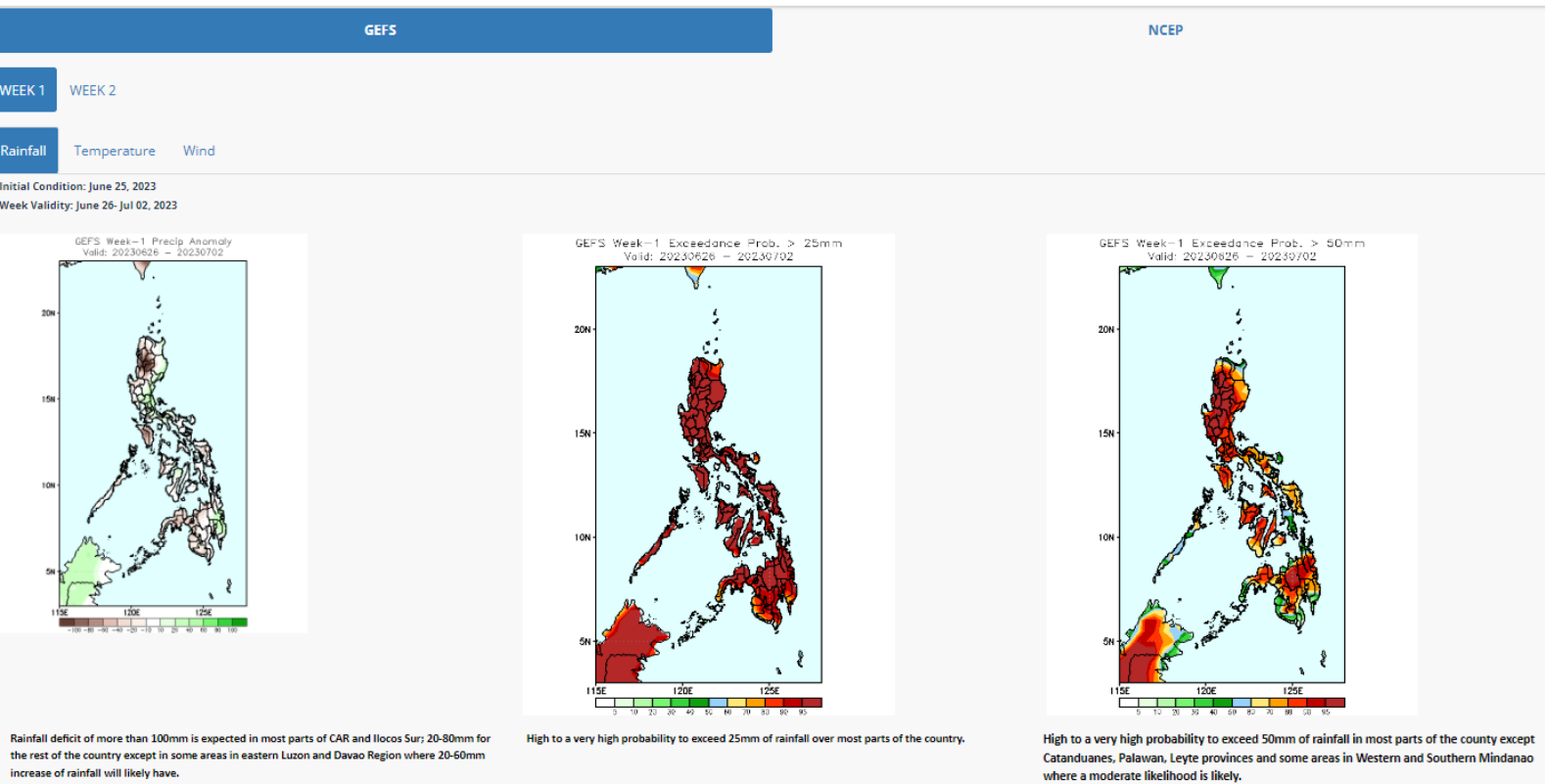
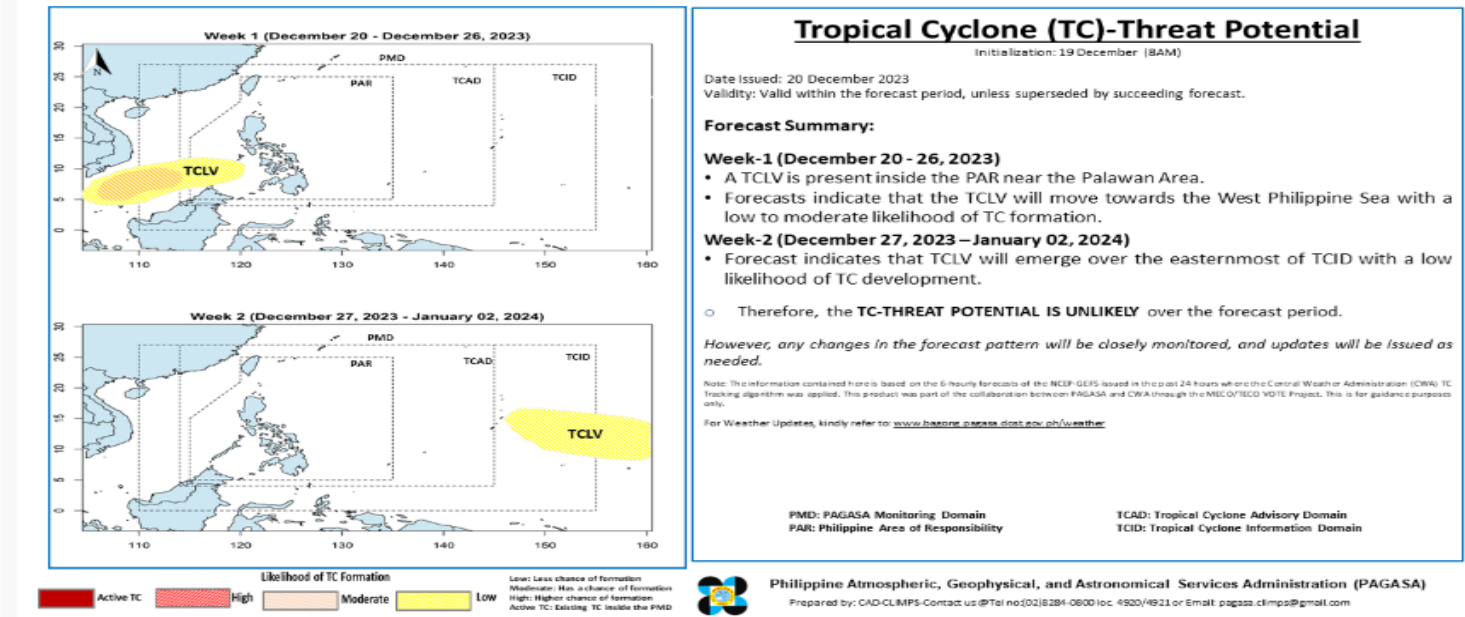
TC-Threat Potential Forecast

PAGASA TC Threat Potential Forecast(TTPF) was formulated in order to detect/evaluate likelihood of TC formation within the Philippine Area of Responsibility and the possibility forecast in track and direction for the next 2-w utilized to objectively detect probability of TC formation in the global numerical weather prediction models.

This product was part of the collaboration between PAGASA and CWB through the MECO/TECO VOTE Project.

Disclaimer: The information contained herein are based on the 6-hourly forecasts of the NCEP-GEFS issued in the past 24hrs where the CWB TC Tracking algorithm was applied and on some climate indicators that are known requiring more specific information related to TC forecasts are advised to use the bulletins being used by PAGASA once the TC is already developed and observed inside the Philippine Area of Responsibility(PAR).

For your questions and queries please contact us: Tel: (02)8248-0800 loc. 908 (CLIMPS-CAD) or email: pagasa.climps@gmail.com Tel: (02)8248-0800 loc. 805 (Weather Forecasting Section)





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for
listening!***