

15TH SESSION OF THE PACIFIC ISLANDS CLIMATE OUTLOOK & STAKEHOLDER FORUM

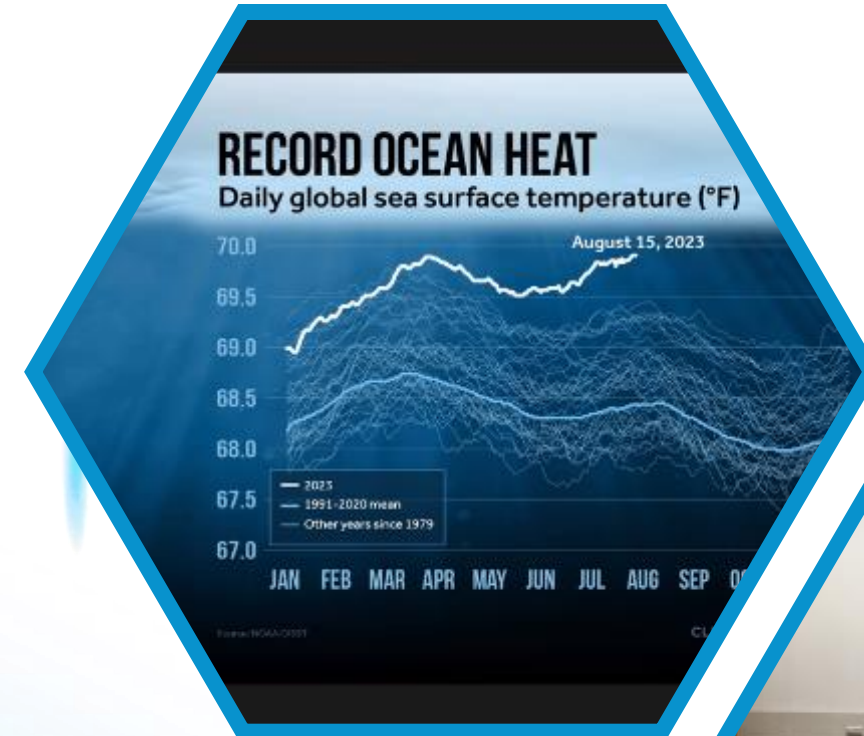
PICOF-15

14 - 15 OCTOBER, 2024

HYBRID

IN-PERSON: NUKU'ALOFA, TONGA

ONLINE: ZOOM



AGENDA 2III: LOOKING BACK

REVIEW & EVALUATION OF MAY-OCT 2024 TC OUTLOOK

OVERVIEW OF WESTERN NORTH PACIFIC TCS OVER THE LAST 6 MONTHS

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PACIFIC REGIONAL
CLIMATE CENTRE NETWORK



SPREP
Secretariat of the Pacific Regional
Environment Programme



Pacific Community
Communauté
du Pacifique

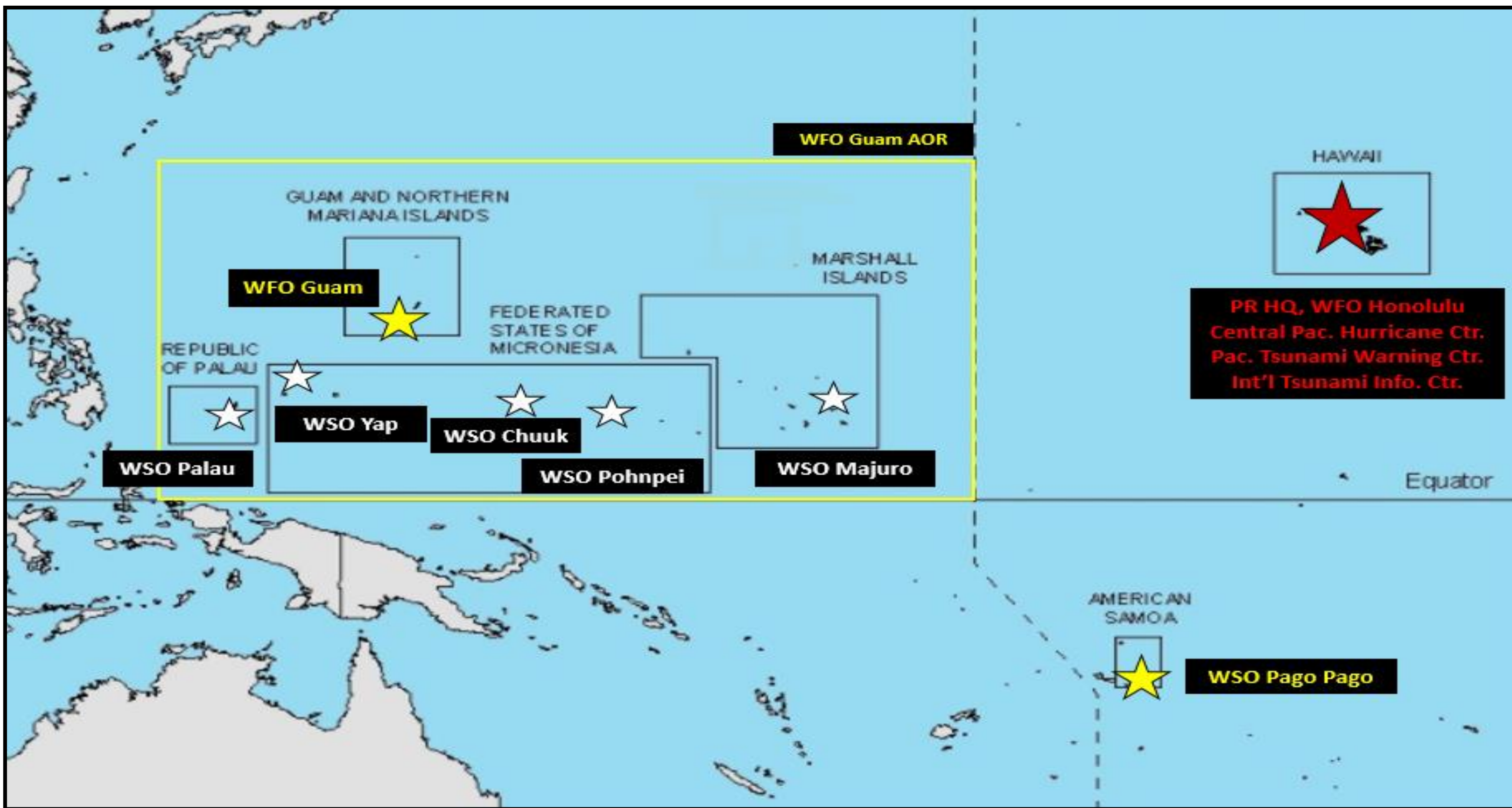


COSPPac



NIWA
Taihoro Nukurangi



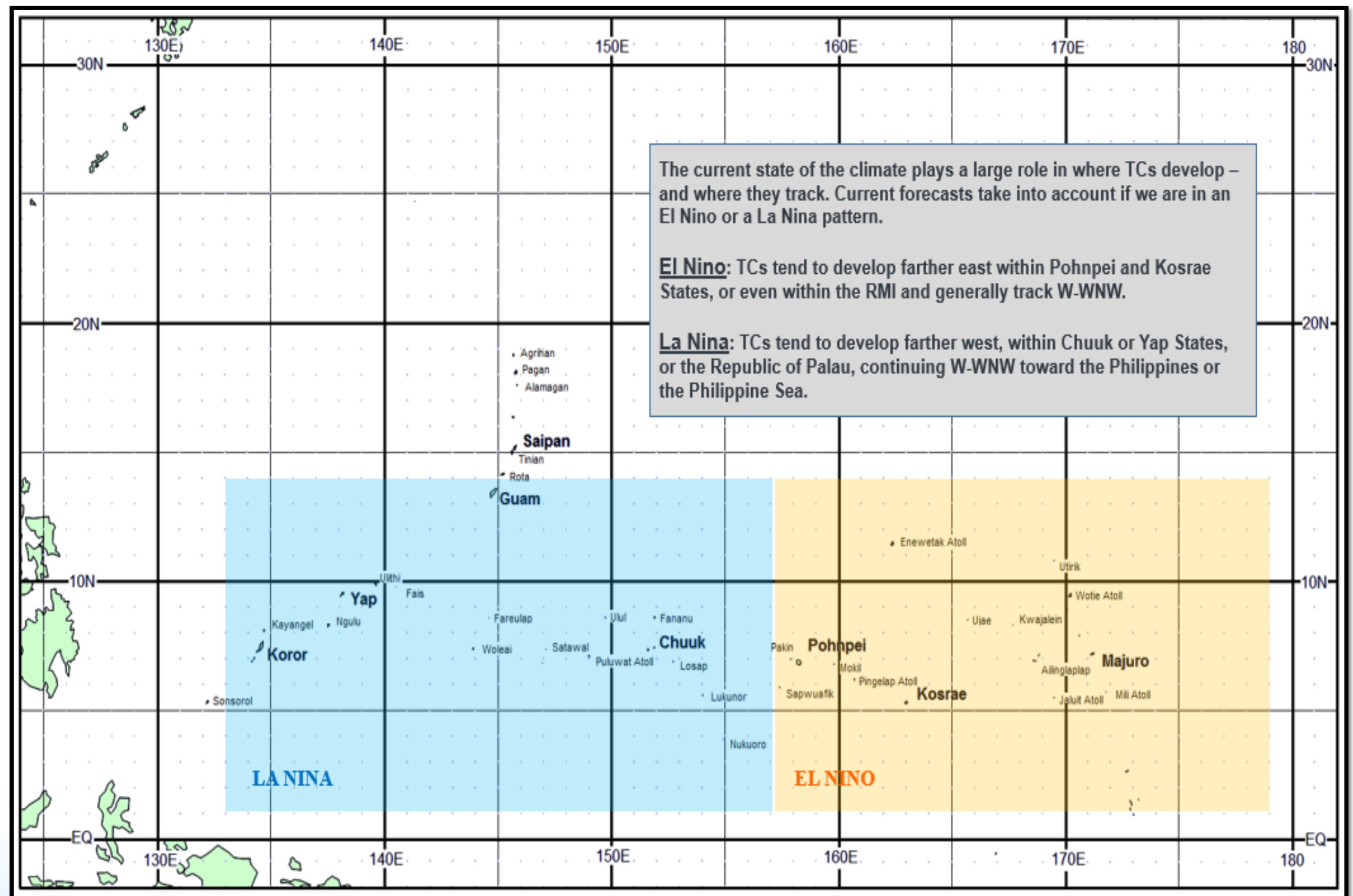


NWS Weather Forecast Office Guam – Area of Responsibility; NWS Pacific Region

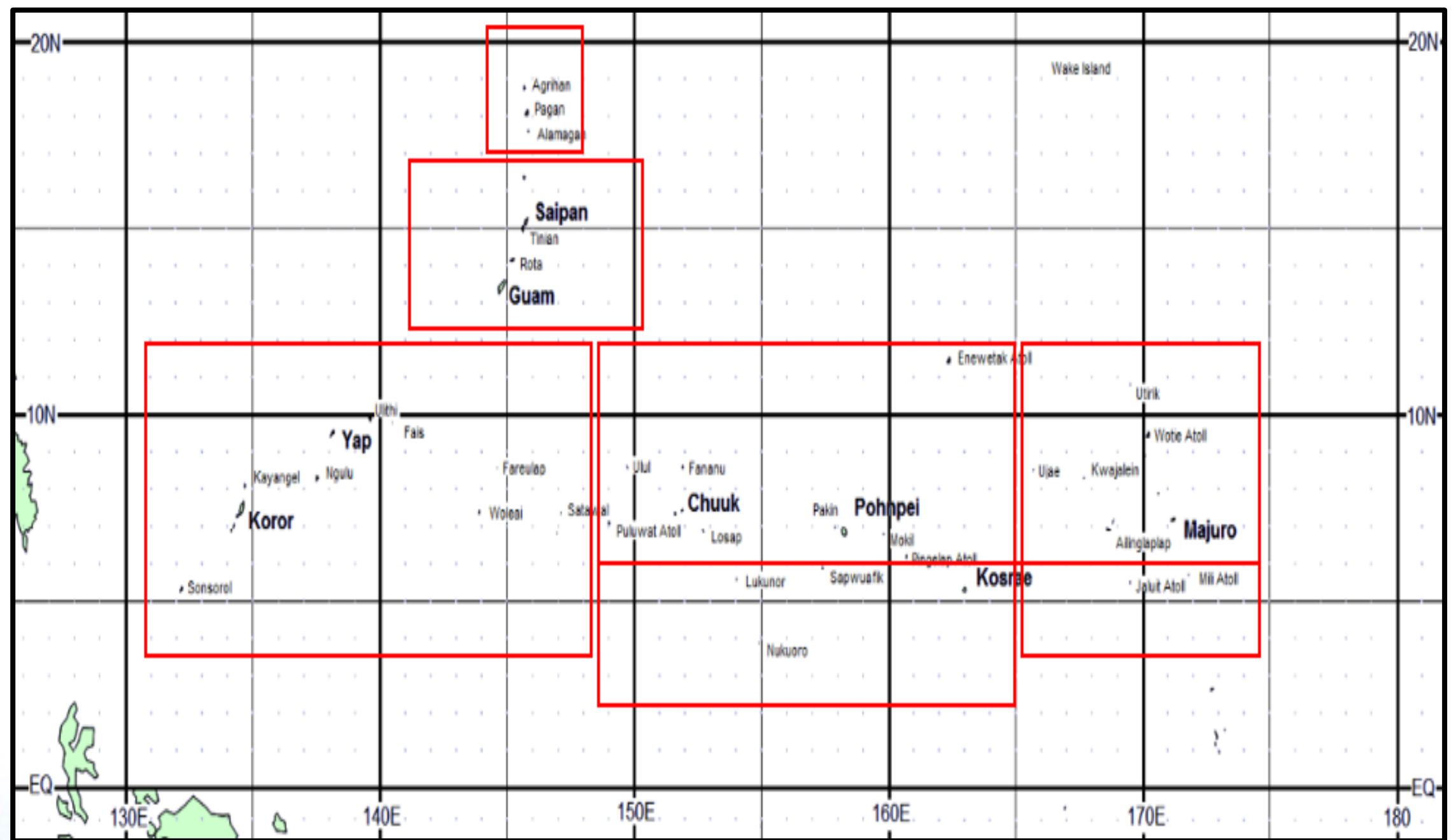
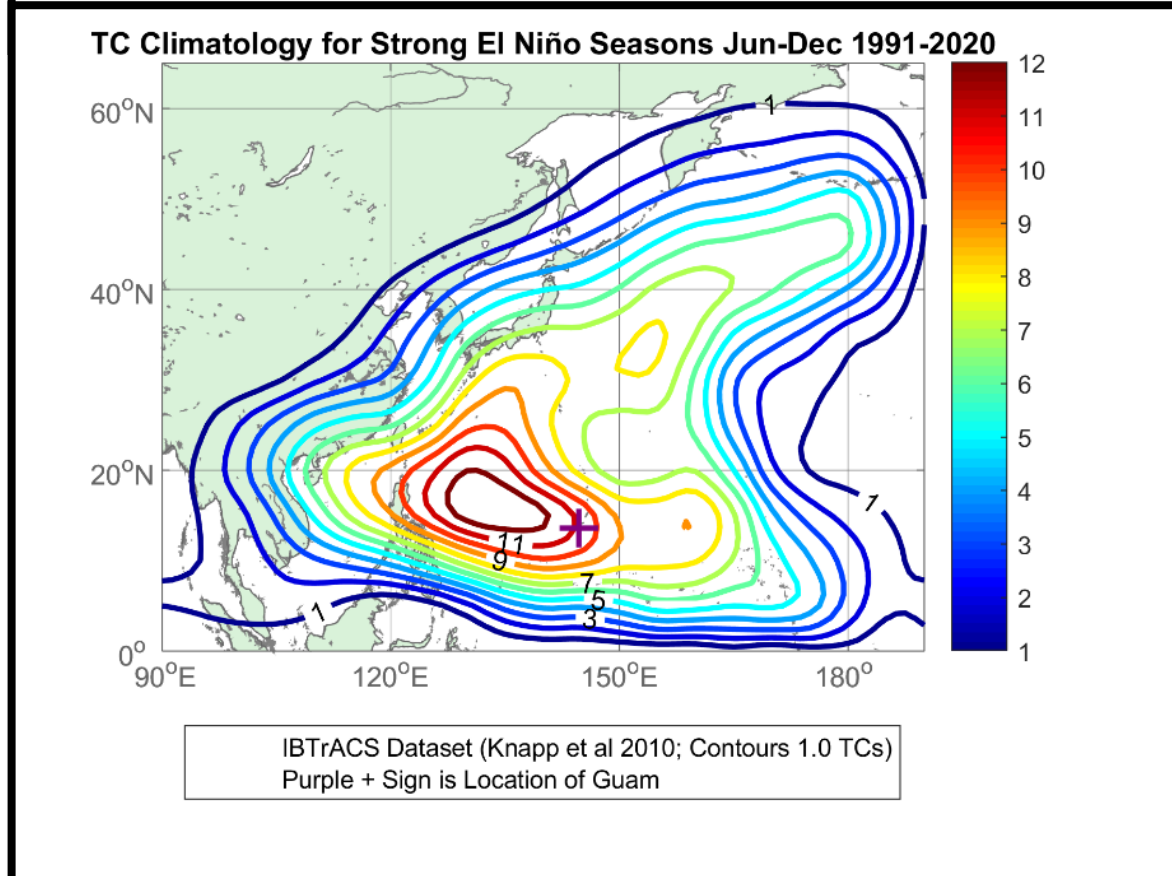
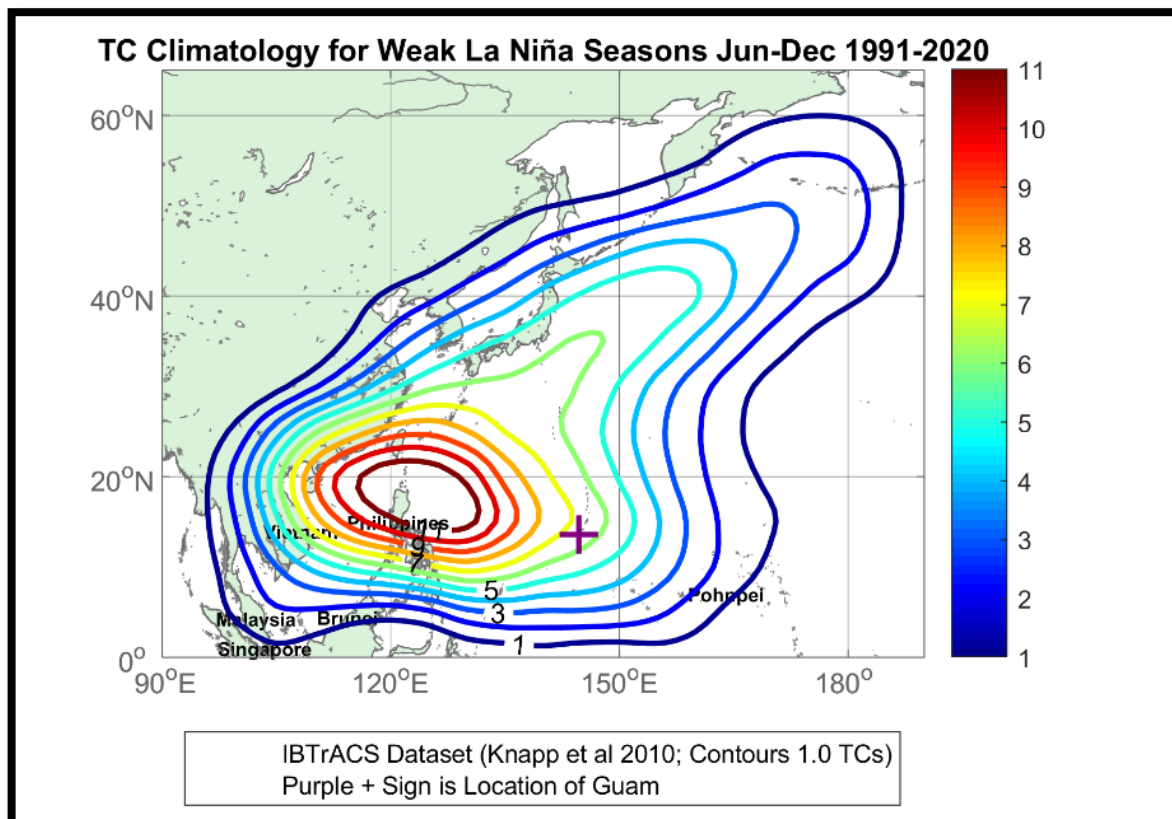
Source: NWS Pacific Region

- On average, the total number of annual tropical cyclones in the western North Pacific does not vary significantly.
- Location of tropical cyclone genesis can fluctuate significantly from year to year based on the current state of the climate.

Currently:
La Niña Watch

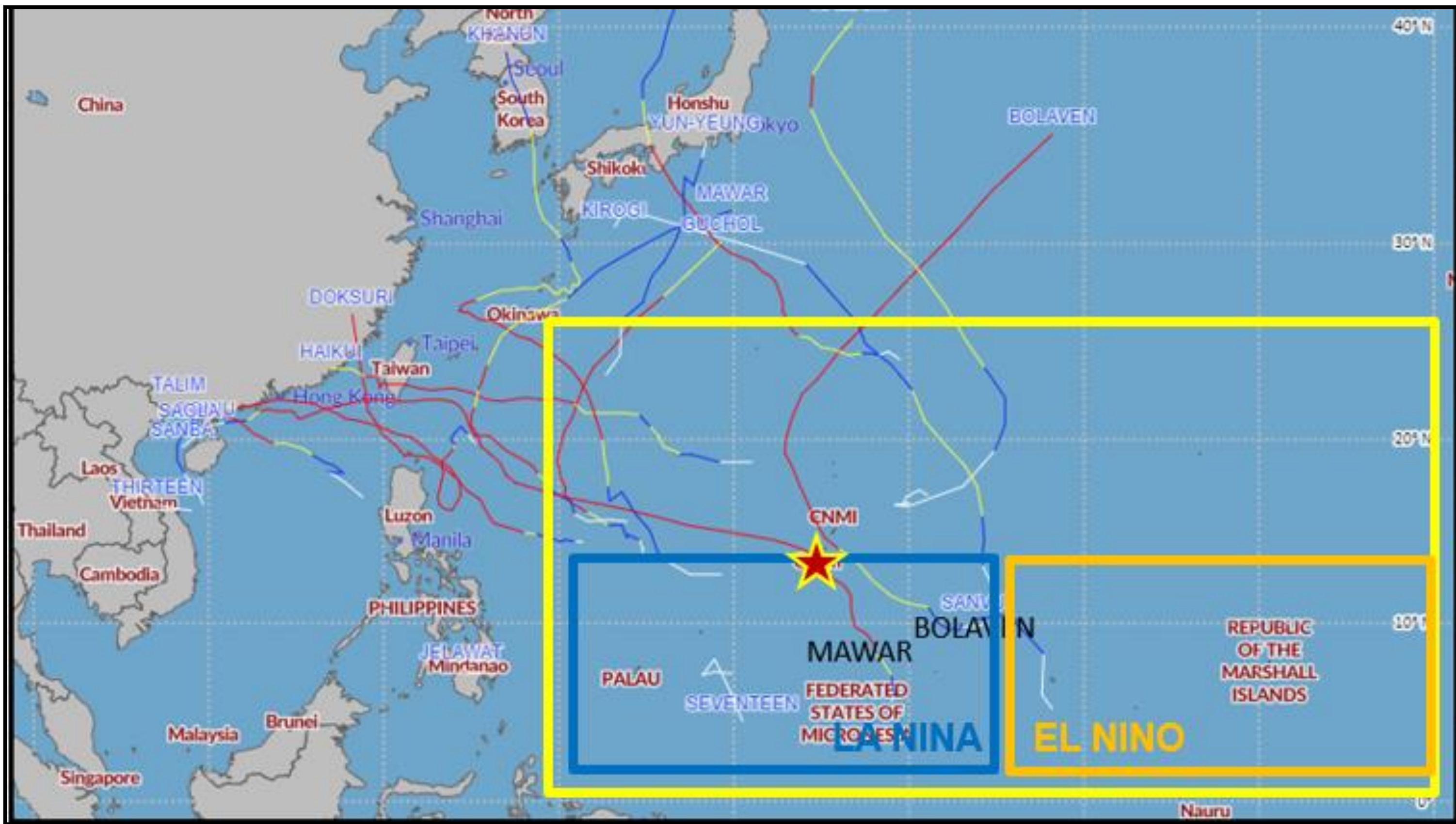


Current ENSO State & Typical TC Genesis Region



Western North Pacific TC Outlook for the USAPI (Not a basin-wide prediction)

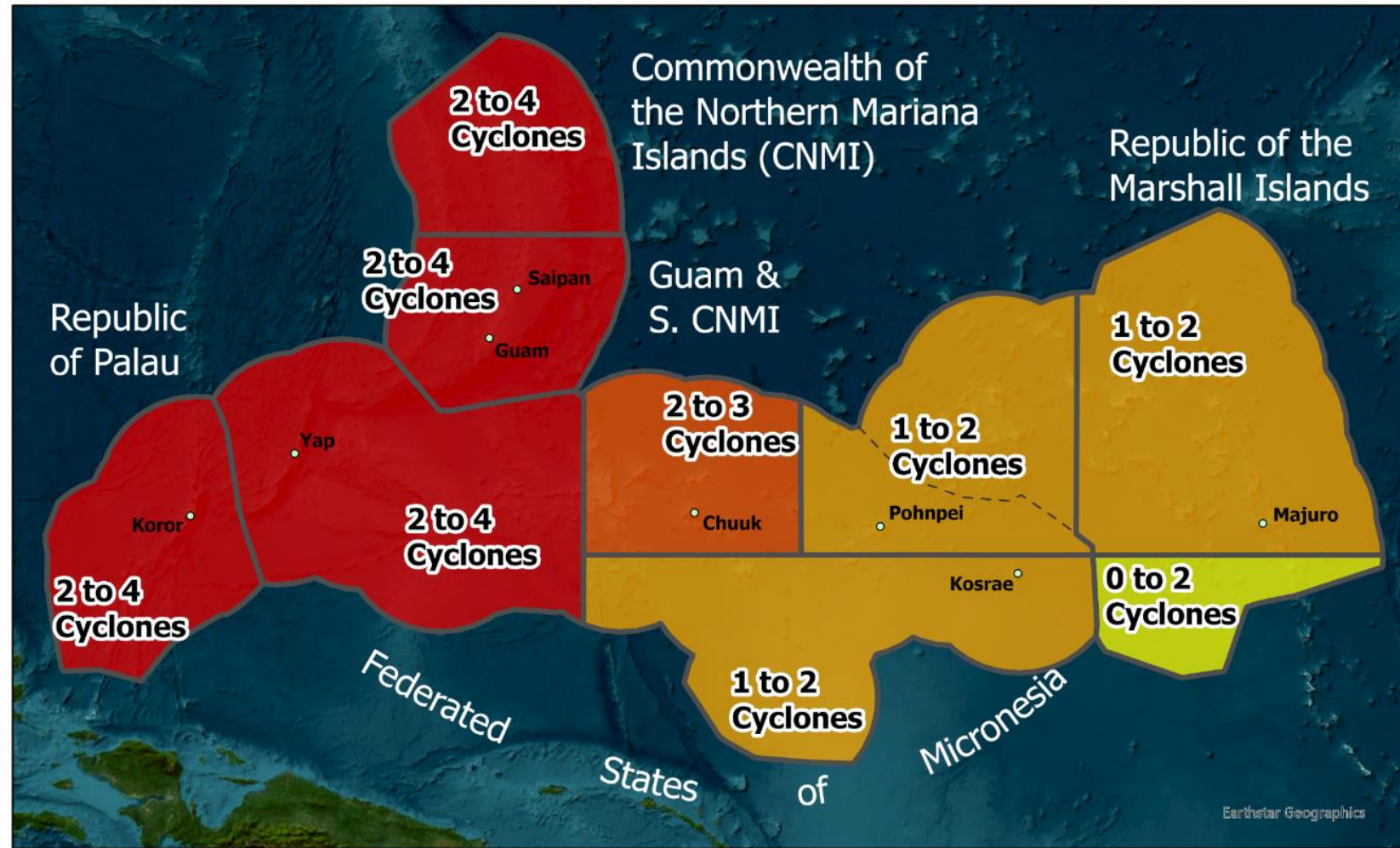
Source: NWS Guam



Last Year: 2023 Western North Pacific TCs: El Niño

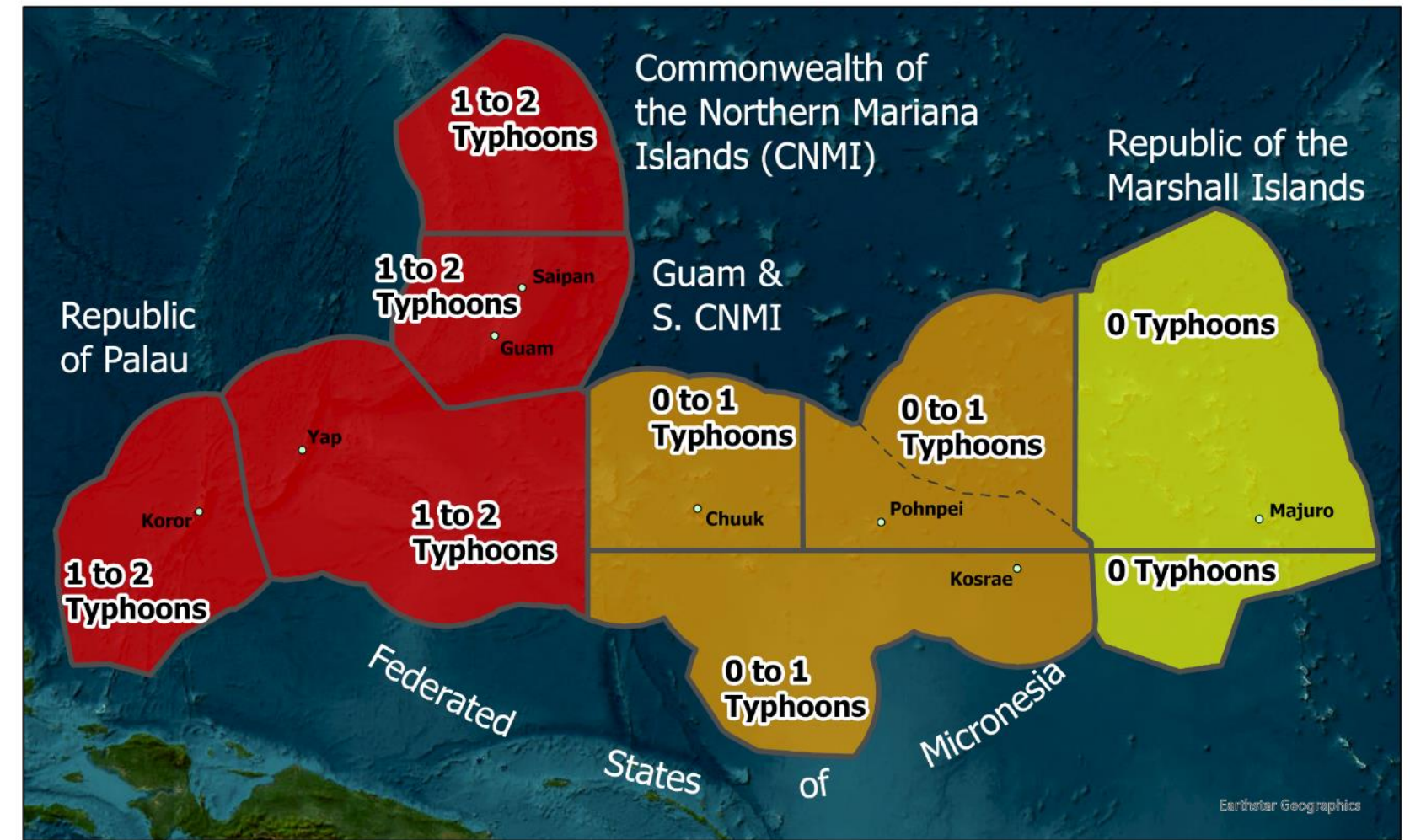
Source: NWS Guam

Predicted Number of Tropical Cyclones (≥ 39 mph) in the Western North Pacific



■ 0 to 2 ■ 2 to 3 - - International Border
■ 1 to 2 ■ 2 to 4 — Forecast Region Boundary Includes Tropical Storms and Typhoons

Predicted Number of Typhoons (≥ 74 mph) in the Western North Pacific

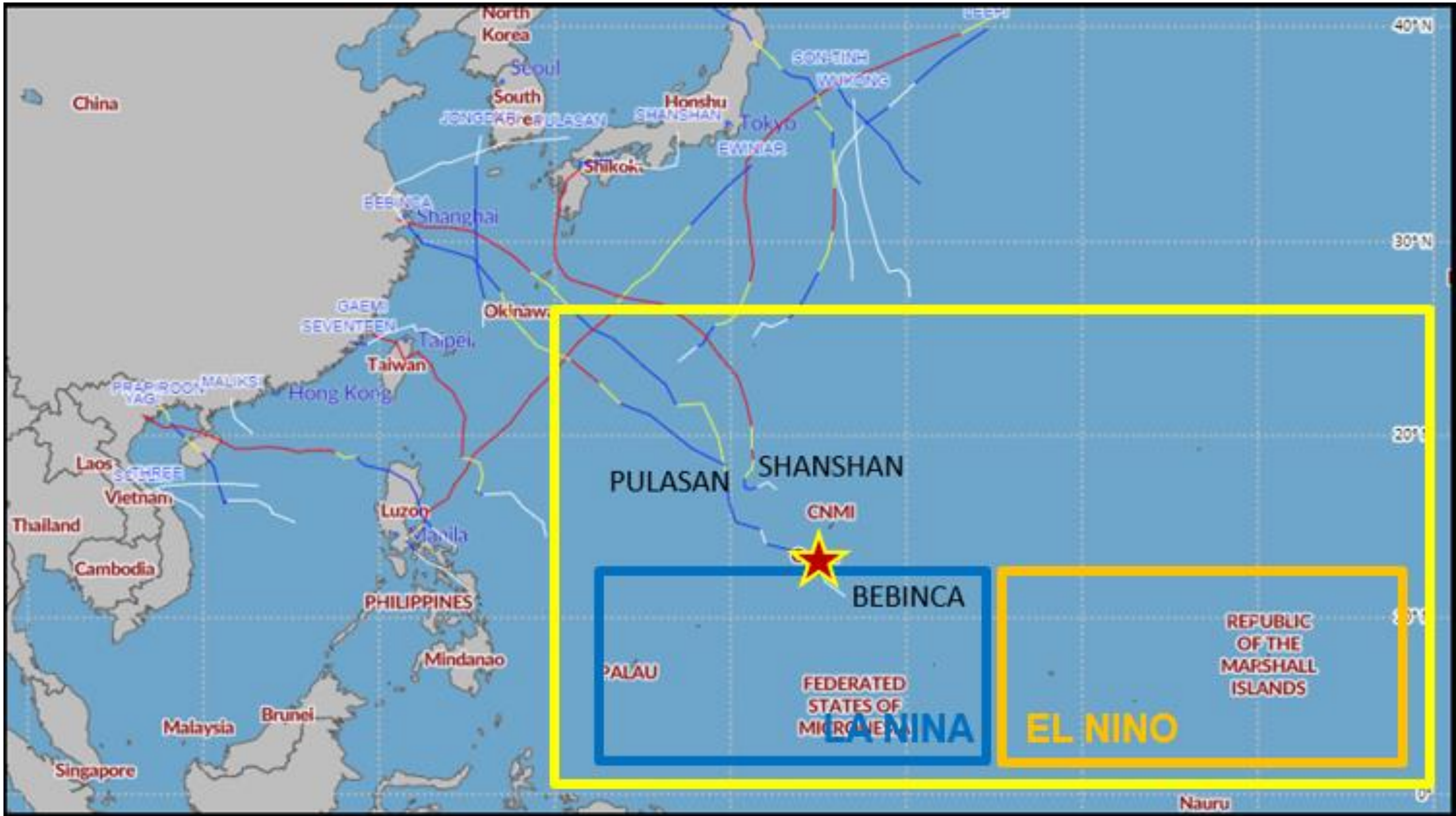


■ 0 ■ 1 to 2 - - International Border
■ 0 to 1 — Forecast Region Boundary

May 2024 Western North Pacific TC Outlook for the USAPI

Source: NWS Guam





2024 Western North Pacific Tropical Cyclones; So Far.

Source: NWS Guam

REGION	NAMED STORMS (≥39 mph max sustained wind)	TYPHOONS (≥74 mph max sustained wind)
Marshall Islands (north of 6N)	1 or 2	0
Marshall Islands (south of 6N)	0 to 2	0
Pohnpei State (north of 6N)	1 or 2	0 or 1
Chuuk State (north of 6N)	2 or 3	0 or 1
Kosrae, Pohnpei, Chuuk States (south of 6N)	1 or 2	0 or 1
Yap State	2 to 4	1 or 2
Palau	2 to 4	1 or 2
Guam, Rota, Tinian and Saipan	2 to 4 (2)	1 or 2
Northern CNMI	2 to 4 (2-3)	1 or 2 (1)

Below-normal TC activity was predicted for 2024 for Guam, the CNMI, FSM and RMI...and below-normal to normal activity for the ROP. This was based on the gradual shift from ENSO-Neutral conditions to La Niña.

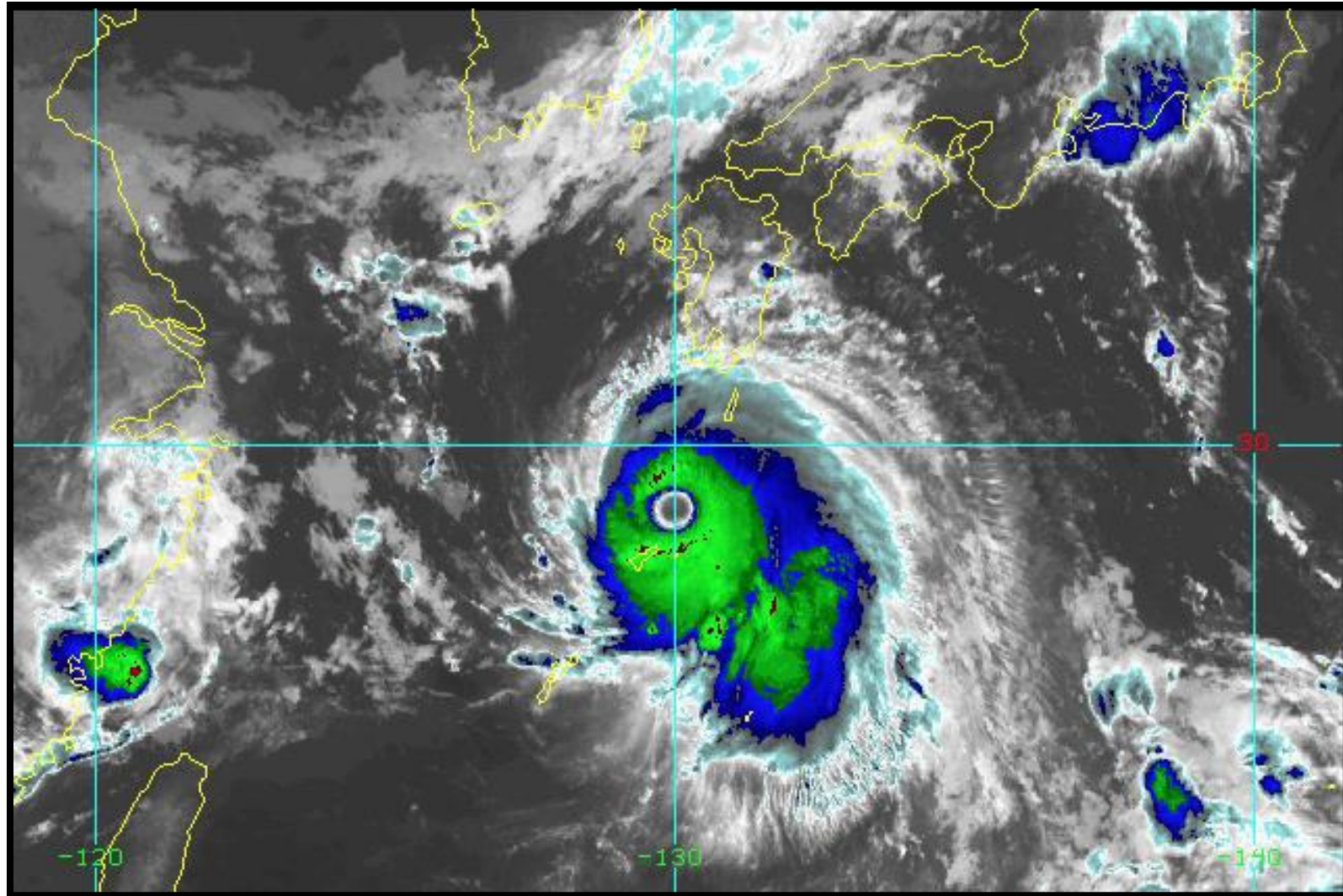
May 2024 Western North Pacific TC Outlook for the USAPI (**Activity so far**)

Source: NWS Guam

Typhoon Shanshan (11W)

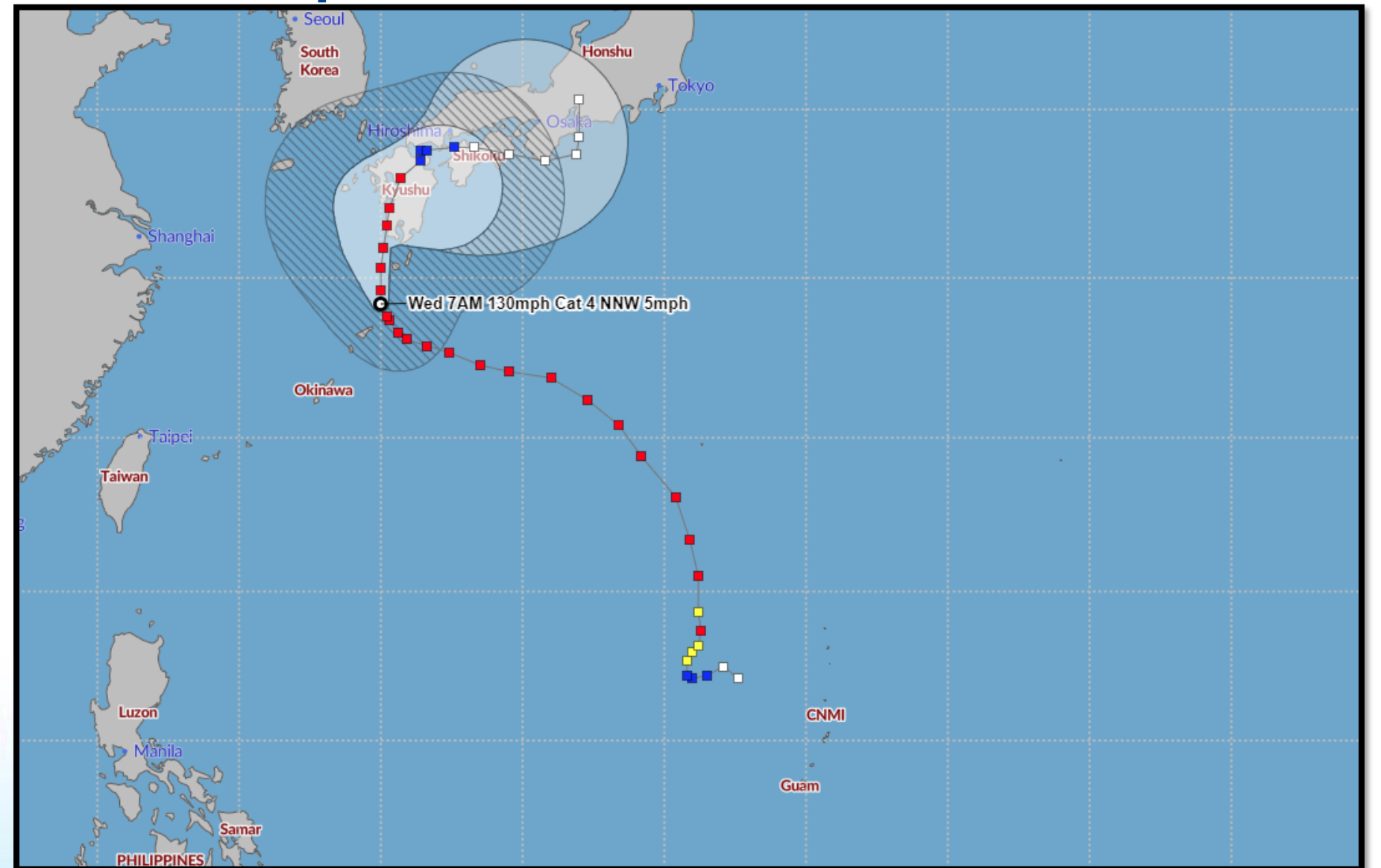
August 2024

Mariana Islands to Japan



**Typhoon Shanshan IR
2024-08-27 19:00 UTC**

https://rammb-data.cira.colostate.edu/tc_realttime/



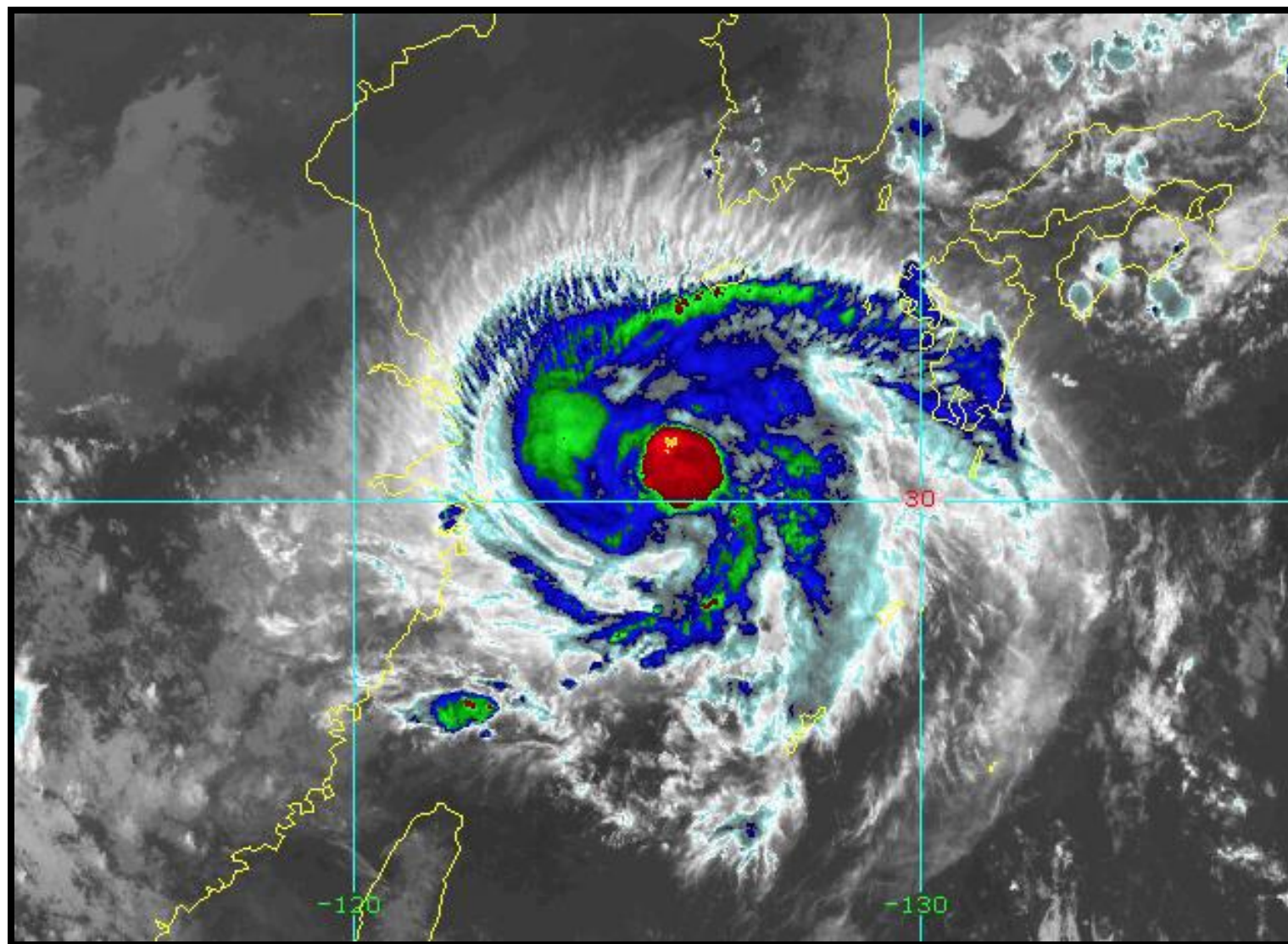
**NOAA NWS Typhoon Shanshan (11W)
Forecast Track and Uncertainty Graphic**

<https://www.weather.gov/gum/Cyclones>

Typhoon Bebinca (14W)

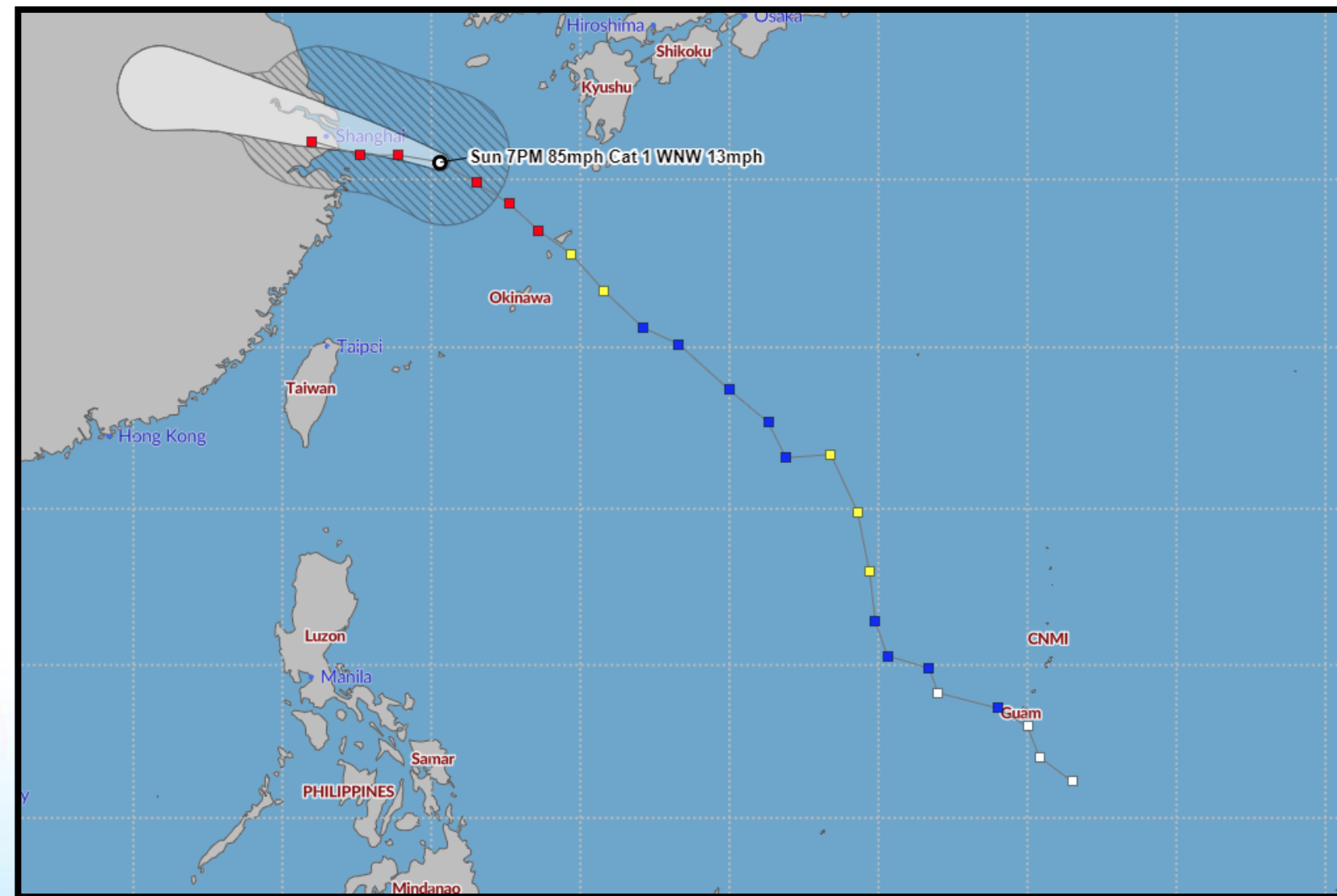
September 2024

Mariana Islands to Japan/China



Typhoon Bebinca IR
2024-09-15 09:00 UTC

https://rammb-data.cira.colostate.edu/tc_realtime/



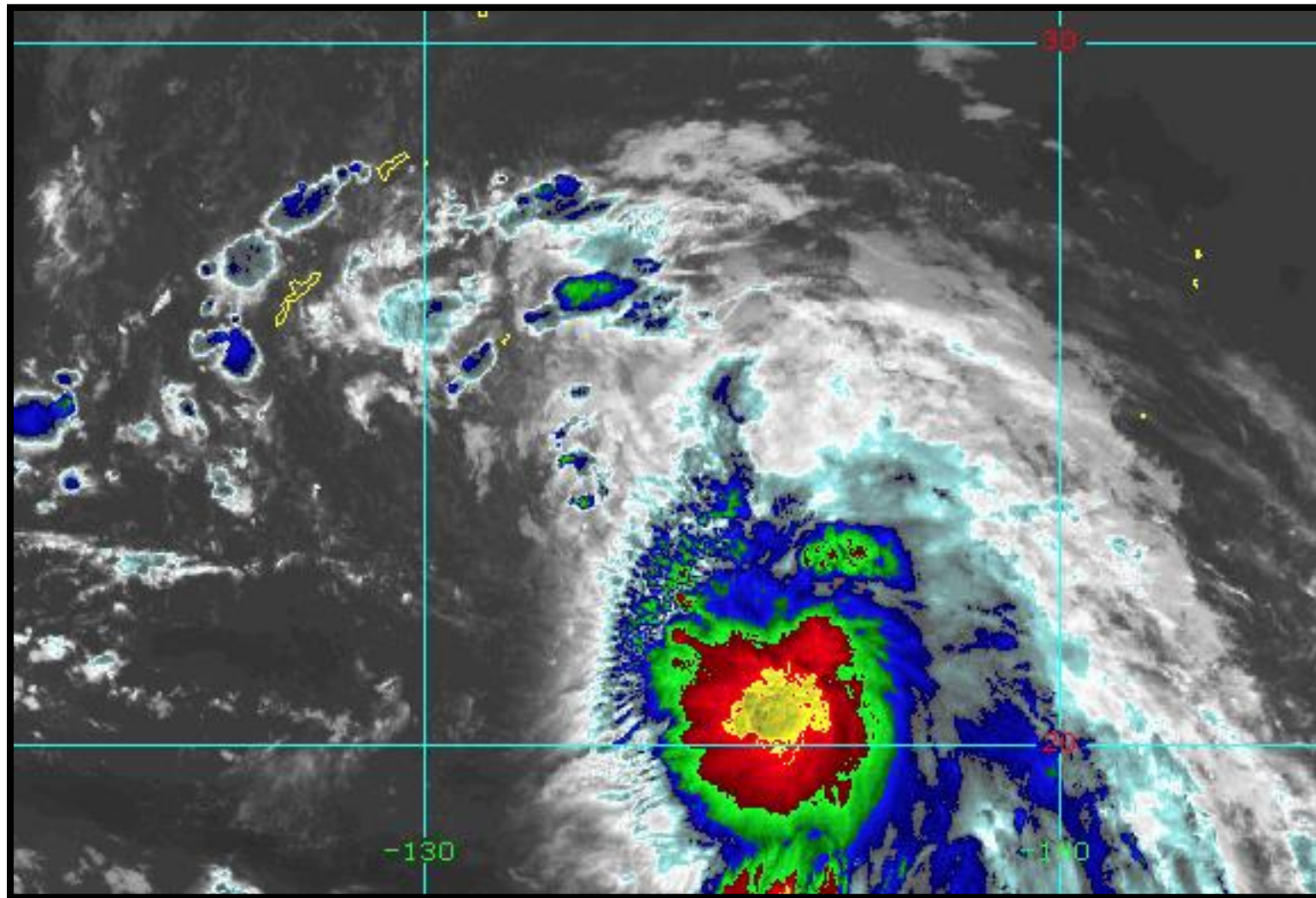
NOAA NWS Typhoon Bebinca (14W)
Forecast Track and Uncertainty Graphic

<https://www.weather.gov/gum/Cyclones>

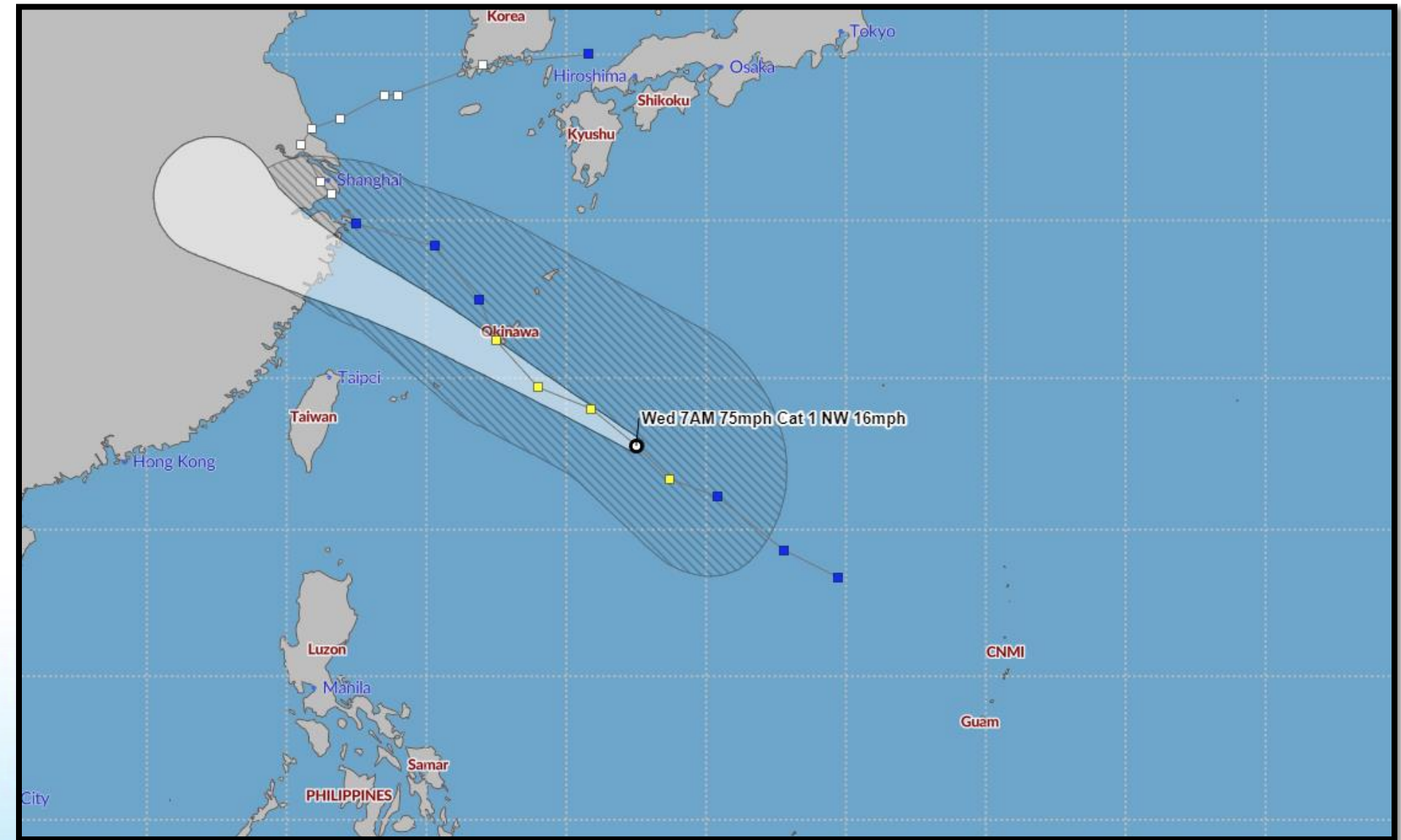
Typhoon Pulasan (15W)

September 2024

Mariana Islands to Japan/China



Typhoon Pulasan IR
2024-09-17 21:00 UTC



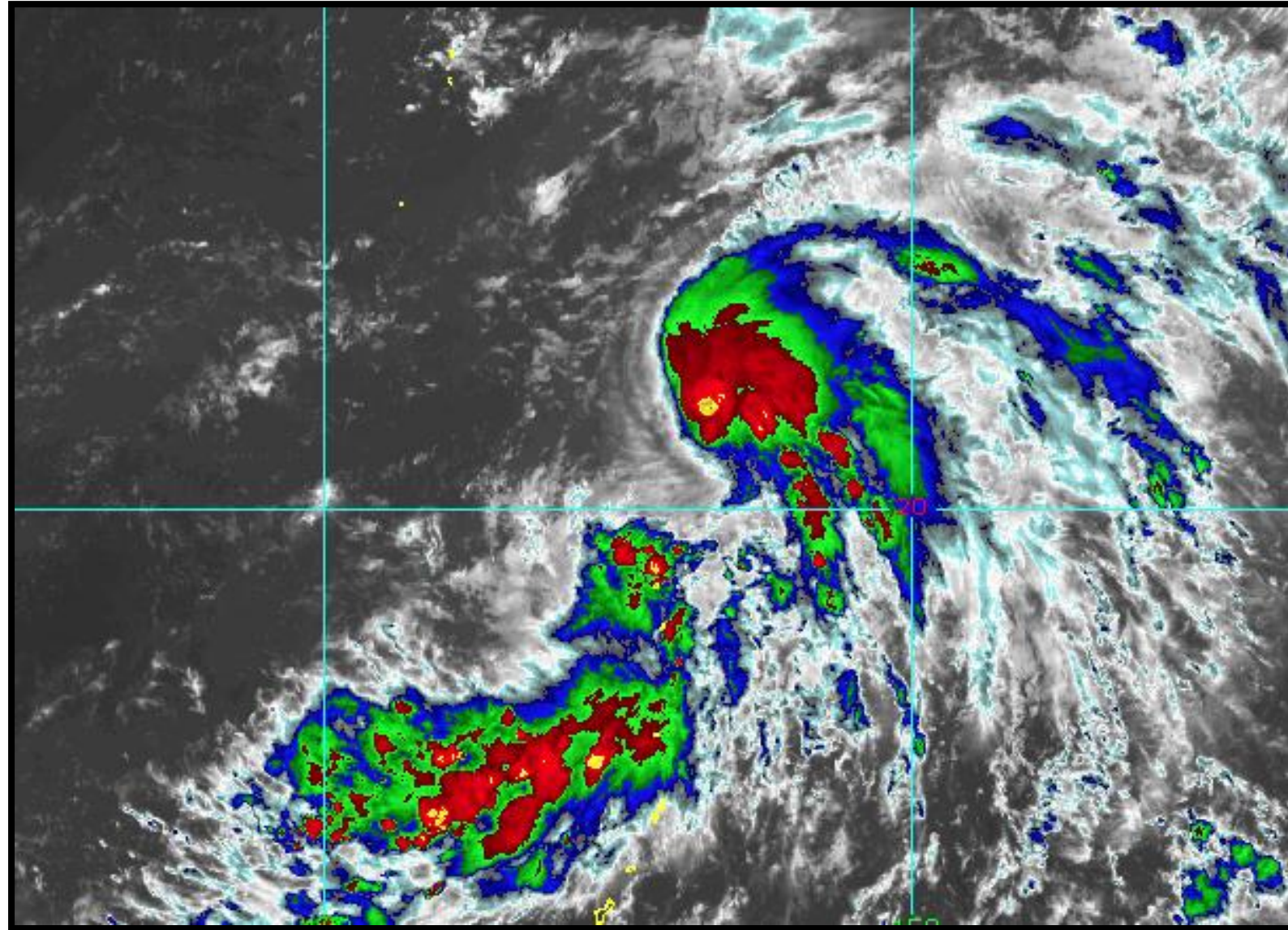
NOAA NWS Typhoon Pulasan (15W)
Forecast Track and Uncertainty Graphic

https://rammb-data.cira.colostate.edu/tc_realtime/

<https://www.weather.gov/gum/Cyclones>

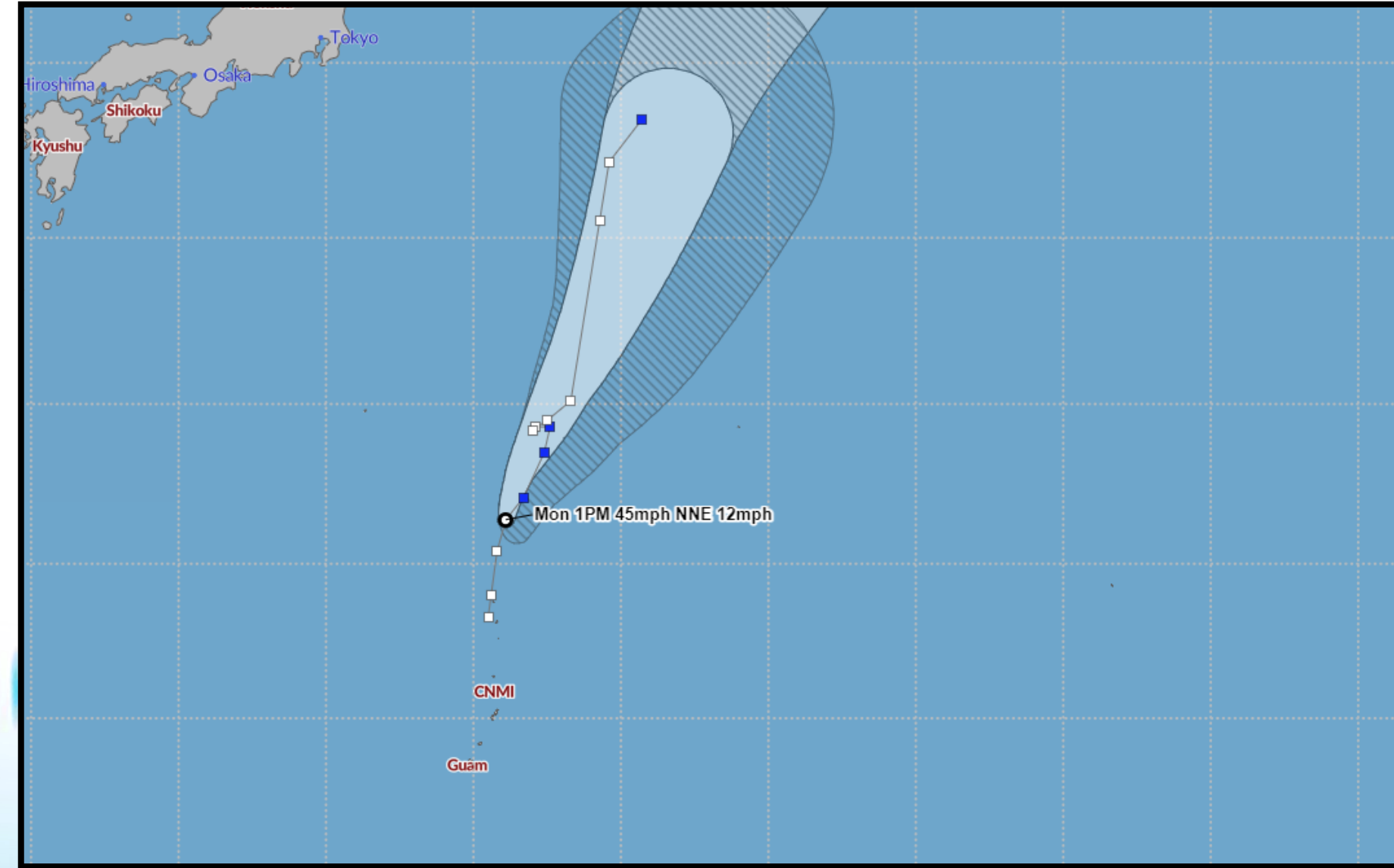
Tropical Storm Barijat (21W) October 2024

Mariana Islands to the North Pacific



**Tropical Storm Barijat IR
2024-10-07 03:00 UTC**

https://rammb-data.cira.colostate.edu/tc_realtime/



**NOAA NWS Tropical Storm Barijat (21W)
Forecast Track and Uncertainty Graphic**

<https://www.weather.gov/gum/Cyclones>

Northern Hemisphere Tropical Cyclone Activity for 2024 (2024/2025 for the Southern Hemisphere)

1991-2020 Climatological Activity Through October 09 in Parentheses

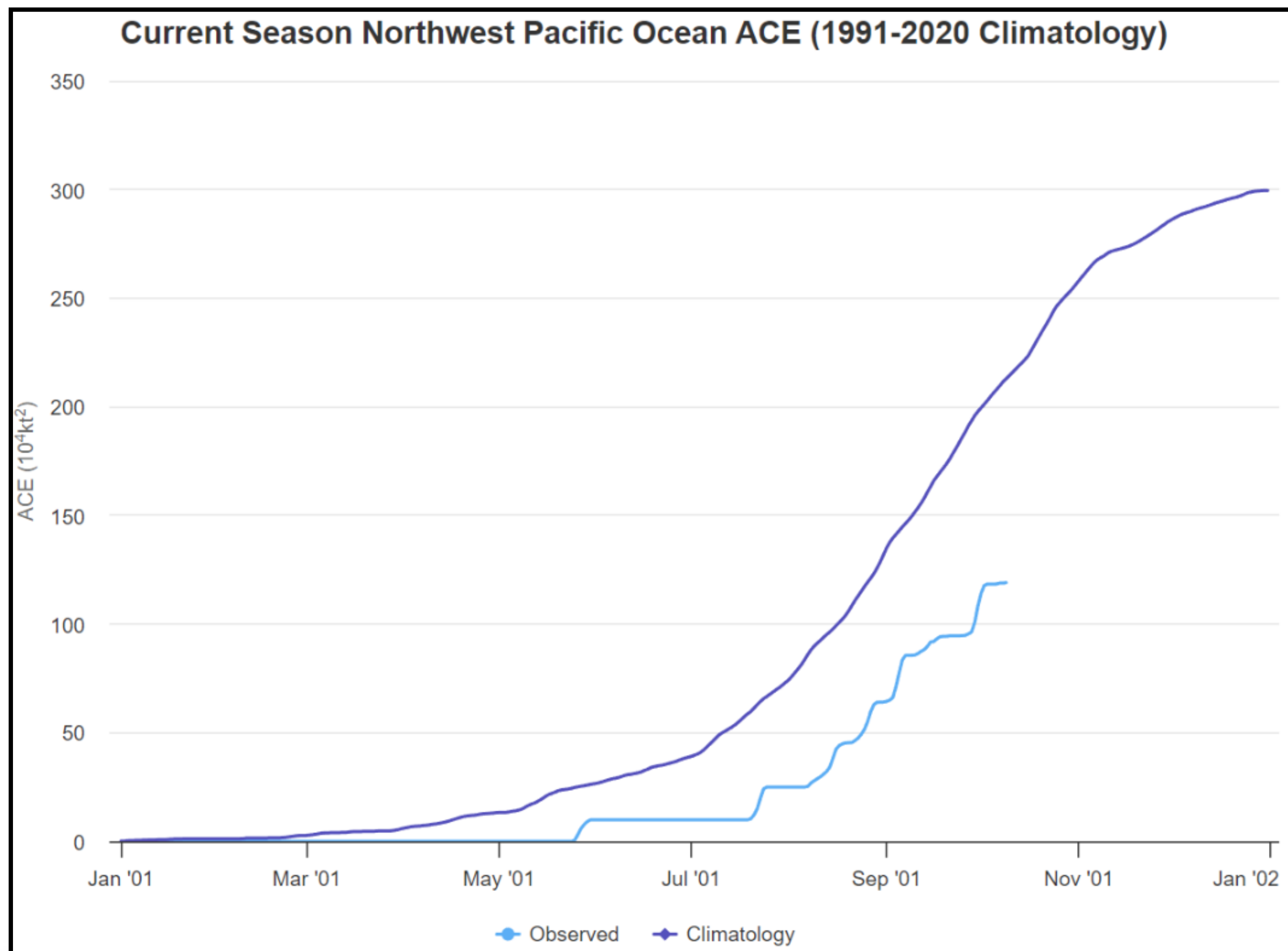
Basin	Named Storms	Named Storm Days	Hurricanes	Hurricane Days	Major Hurricanes	Major Hurricane Days	Accumulated Cyclone Energy
<u>North Atlantic</u>	13 (11.8)	59.00 (57.5)	9 (5.7)	31.50 (22.5)	4 (2.6)	11.00 (6.5)	136.2 (103.0)
<u>Northeast Pacific (East of 180°)</u>	11 (14.6)	45.50 (64.7)	4 (8.0)	10.75 (25.9)	2 (4.2)	2.75 (8.8)	59.9 (120.0)
<u>Northwest Pacific (West of 180°)</u>	17 (19.5)	63.00 (98.3)	10 (11.9)	25.25 (46.2)	5 (6.7)	9.75 (17.4)	119.1 (213.0)
<u>North Indian</u>	2 (2.5)	4.75 (7.0)	0 (0.9)	0.00 (1.8)	0 (0.4)	0.00 (0.7)	3.3 (10.3)
<u>Northern Hemisphere</u>	43 (48.4)	172.25 (227.5)	23 (26.5)	67.50 (96.4)	11 (13.9)	23.50 (33.4)	318.5 (446.3)
<u>South Indian (West of 135°E)</u>	1 (0.6)	1.75 (1.2)	0 (0.0)	0.00 (0.0)	0 (0.0)	0.00 (0.0)	1.3 (0.8)
<u>South Pacific (East of 135°E)</u>	0 (0.1)	0.00 (0.2)	0 (0.0)	0.00 (0.0)	0 (0.0)	0.00 (0.0)	0 (0.1)
<u>Southern Hemisphere</u>	1 (0.7)	1.75 (1.4)	0 (0.0)	0.00 (0.0)	0 (0.0)	0.00 (0.0)	1.3 (0.9)

Global statistics were last modified: October 09 2024 21:00 MT

Northern Hemisphere 2024 TC Activity (2024-2025 for S. Hemisphere)

1991-2020 Climatological Average Through October 9 in Parenthesis

Source: <https://tropical.atmos.colostate.edu/Realtime/>



2024 ACE for the Western North Pacific (1991-2020 Climatology)

Source: <https://tropical.atmos.colostate.edu/Realtime/index.php?loc=northwestpacific>

Summary

- A shift from El Nino to ENSO-Neutral in early to mid 2024, with the likelihood of La Nina conditions in the N. Hemisphere Fall, raised the likelihood of a below-normal year for tropical cyclone activity for the U.S. Affiliated Pacific Islands (USAPI) of the western North Pacific
- 2024 Tropical Cyclone activity, so far, has been indicative of a climate pattern shifting to La Nina with activity favoring areas west of the USAPI
- 2024 Tropical Cyclone activity is, so far, similar to that of 2020-2022
- As of 10 October, there have been 21 tropical cyclones in the western North Pacific, already more than the 18 in the western North Pacific during the 2023 El Nino year
- Four tropical cyclones formed within the USAPI in 2024:
 - **Typhoon Shanshan (01W)**, west of the Marianas
 - **Typhoon Bebinca (14W)**, southeast of the Marianas and passing over southern Guam as a borderline tropical depression/tropical storm with minimal impacts.
 - **Typhoon Pulasan (15W)**, west of the Marianas
 - **Tropical Storm Barijat (21W)**, over the Northern Mariana Islands





THANK YOU!

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