

Agenda 5iii: Looking Forward: Seasonal and Intra-Seasonal Pacific Guidance for 2021-2022

Northern Hemisphere (West Pacific) and American Samoa Tropical Cyclones

Marcus Landon Aydlett

Warning Coordination Meteorologist, U.S. National Weather Service

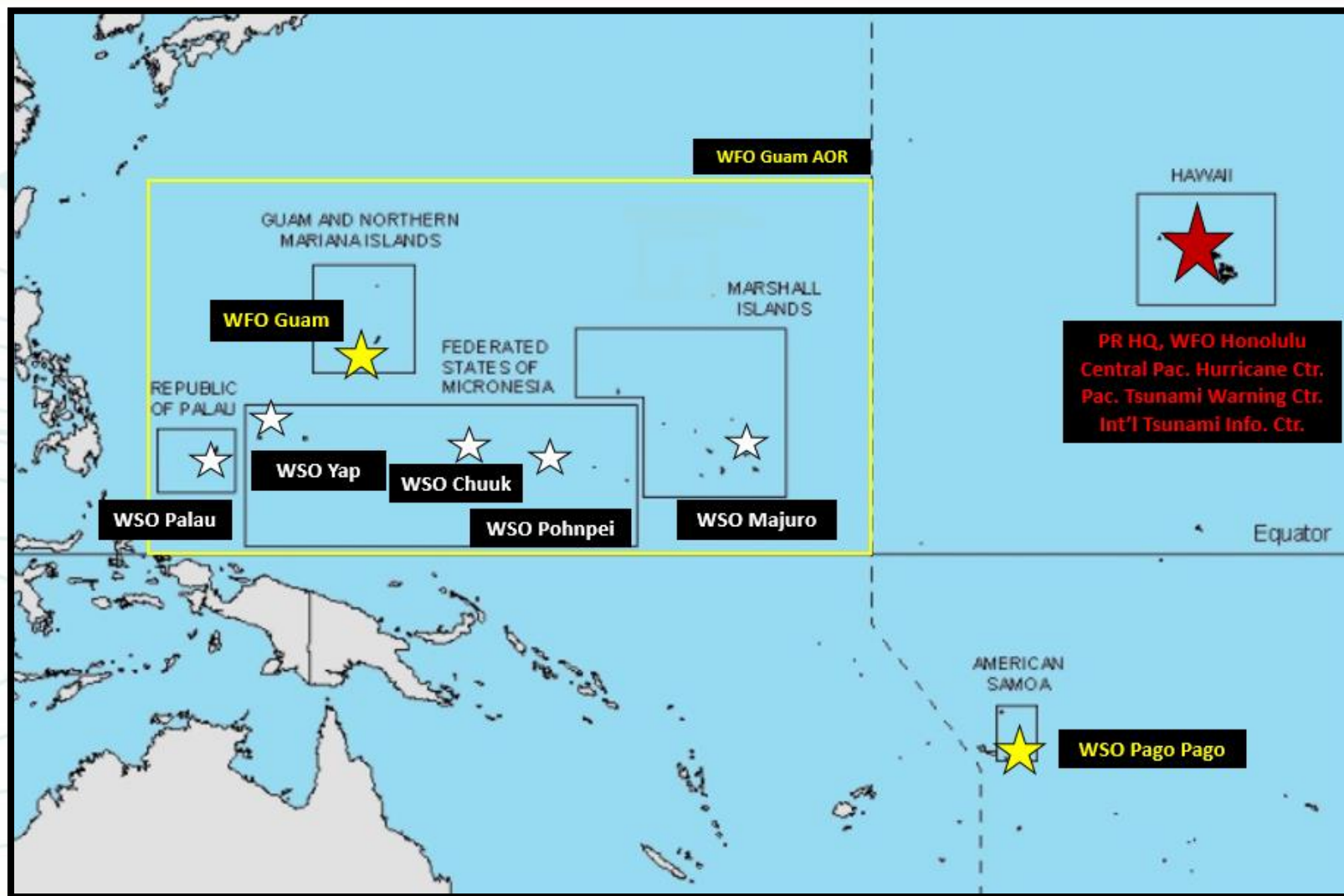
Weather Forecast Office, Guam

NOAA

Outline of Presentation

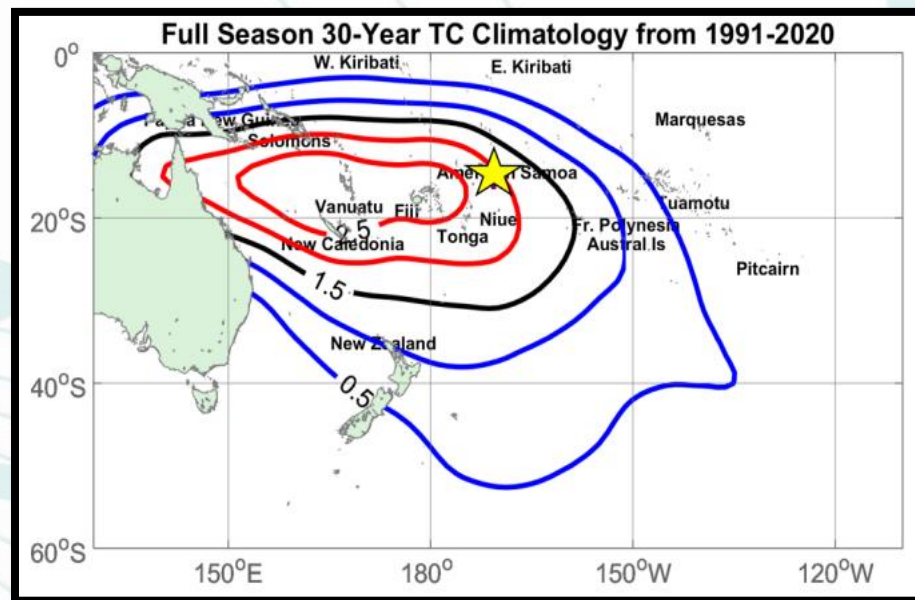
- **WFO Guam and NWS Pacific Region**
- **2021/2022 American Samoa TC Outlook**
- **2021/2022 Tropical Cyclones**
- **Current State of the Climate and Impacts to TC Genesis**
- **2022 Western North Pacific TCs – So Far**
- **2022 Western North Pacific (For the US Affiliated Pacific Islands (USAPI)) TC Outlook**

WFO Guam and the NWS Pacific Region

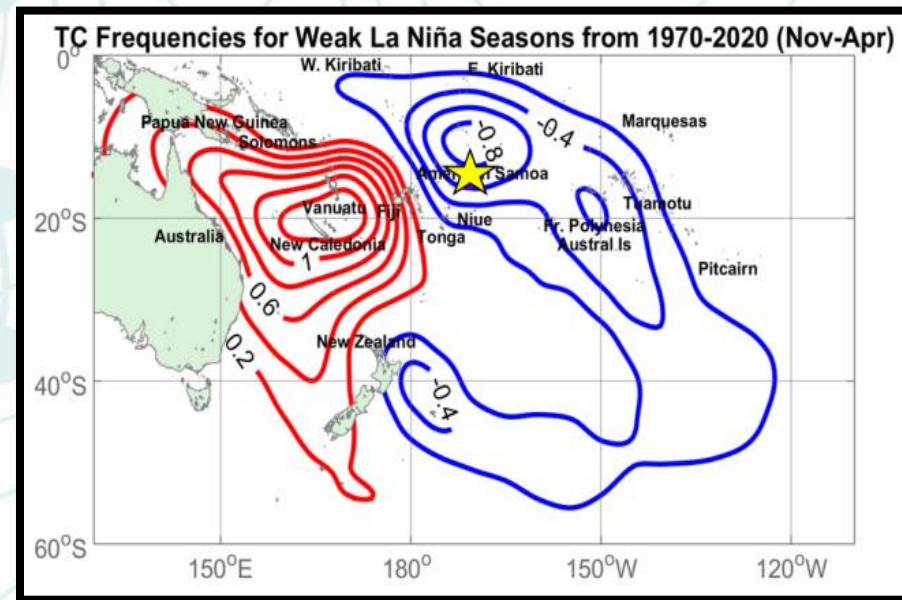


American Samoa Tropical Cyclone Outlook – NOAA/Oct 2021

- Collaborative Seasonal Outlook with WSO Pago Pago, NWS Pacific Region, NOAA CPC, ARL, OAR
- Outlook Released October 2021 for A.S. and waters out to 300 nautical miles
- **Next Outlook: Oct 2022**
- Predicted a normal to below normal TC Season, specifically, 1 to 2 tropical cyclones
- La Nina typically reduces TC activity near American Samoa



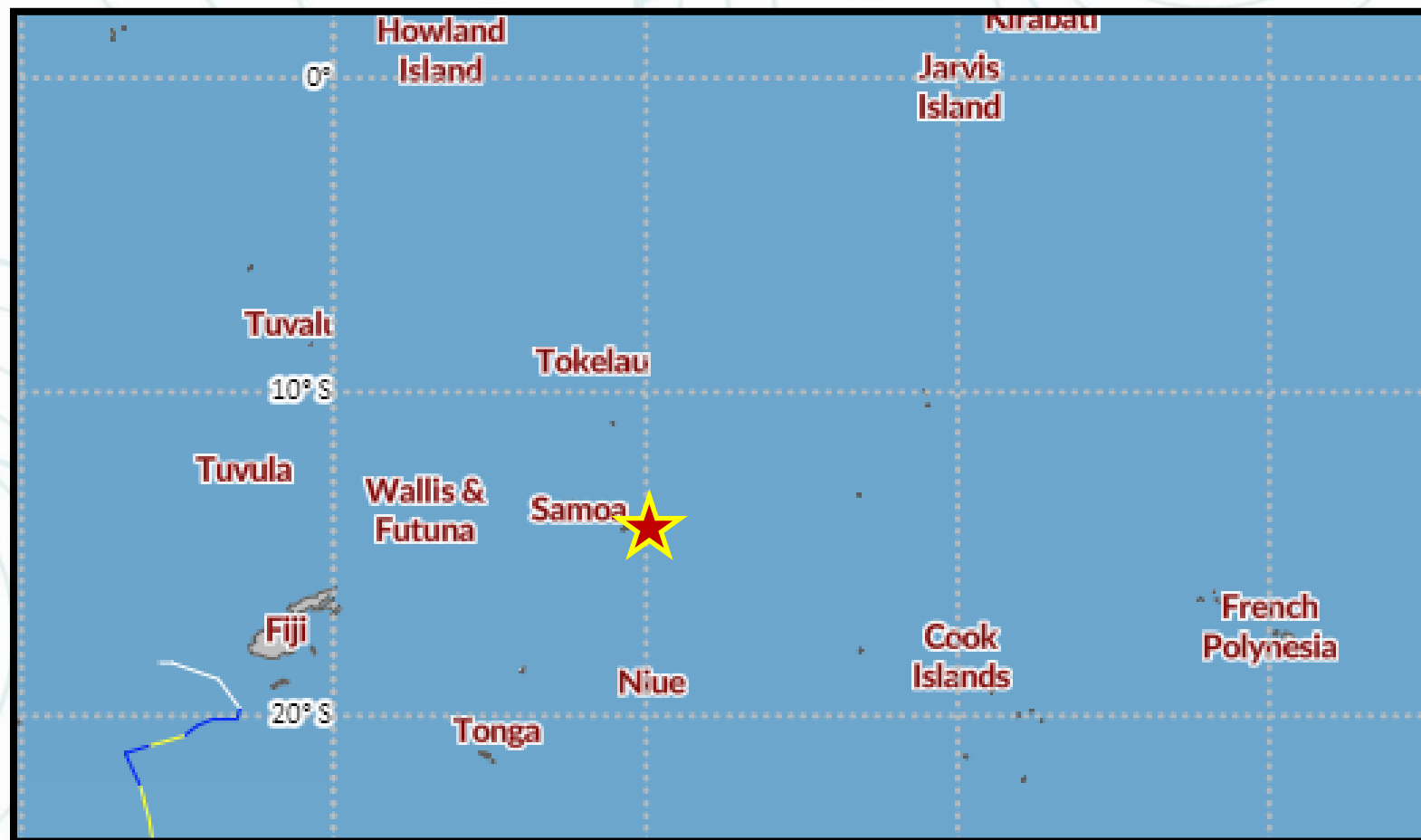
30-Year Climatology of overall TC Occurrences from 1981-2010 (Data are from the SPEArTC dataset). Blue contours represent less than 1.5 TCs per season; Red contours represent greater than 1.5 TCs per season. Yellow star represents the location of American Samoa.



Full Season Tropical Cyclone frequencies anomalies during La Niña seasons from 1970-2020; data are from the South Pacific Enhanced Archive of Tropical Cyclones (SPEArTC) dataset (Diamond, et al 2012); Red (Blue) contours represent Above (Below) normal TC occurrences. Yellow star represents the location of American Samoa.

American Samoa 2021/2022 Tropical Cyclones

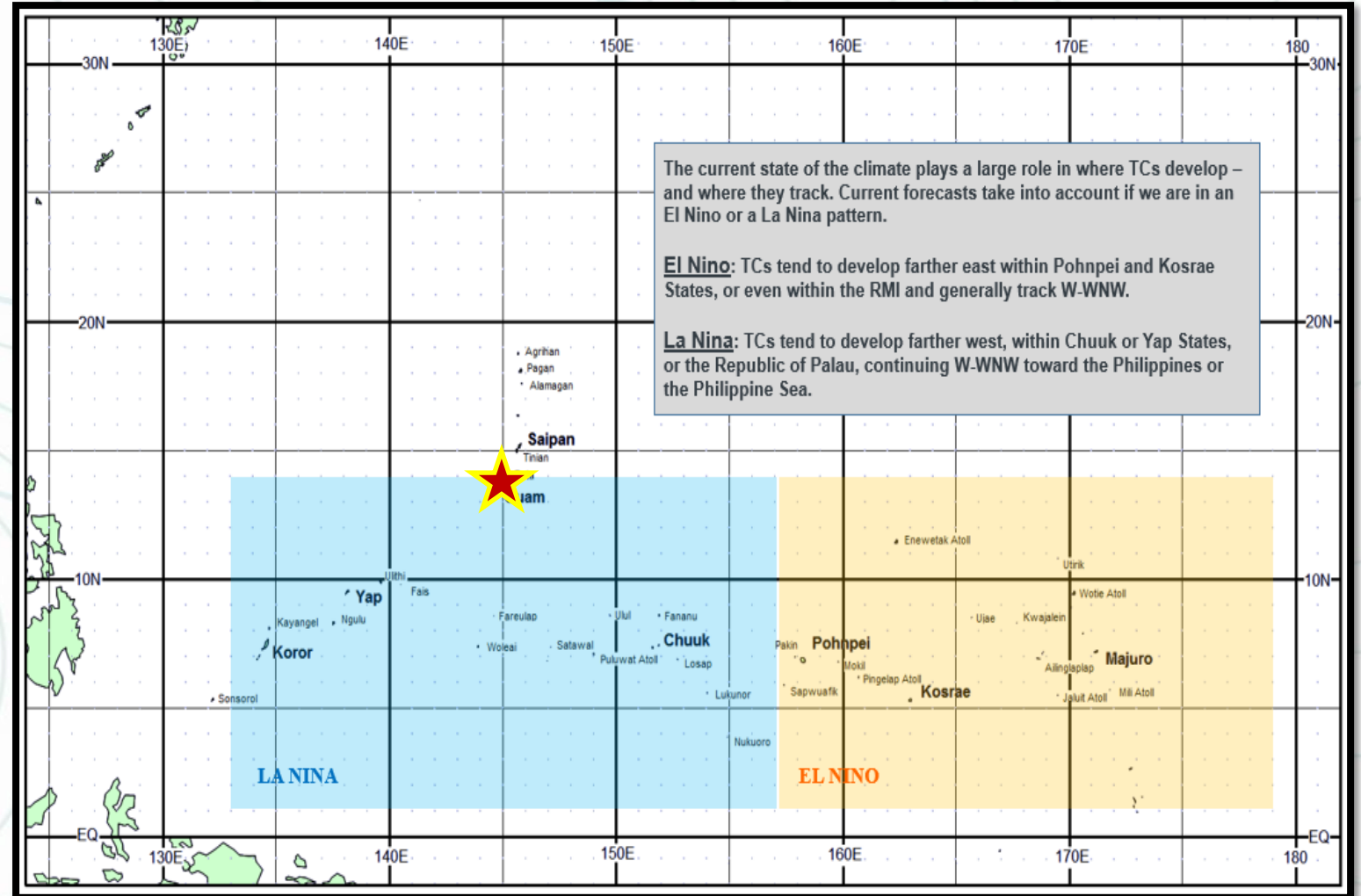
- **No Tropical Cyclone Activity for the 2021/2022 Season**



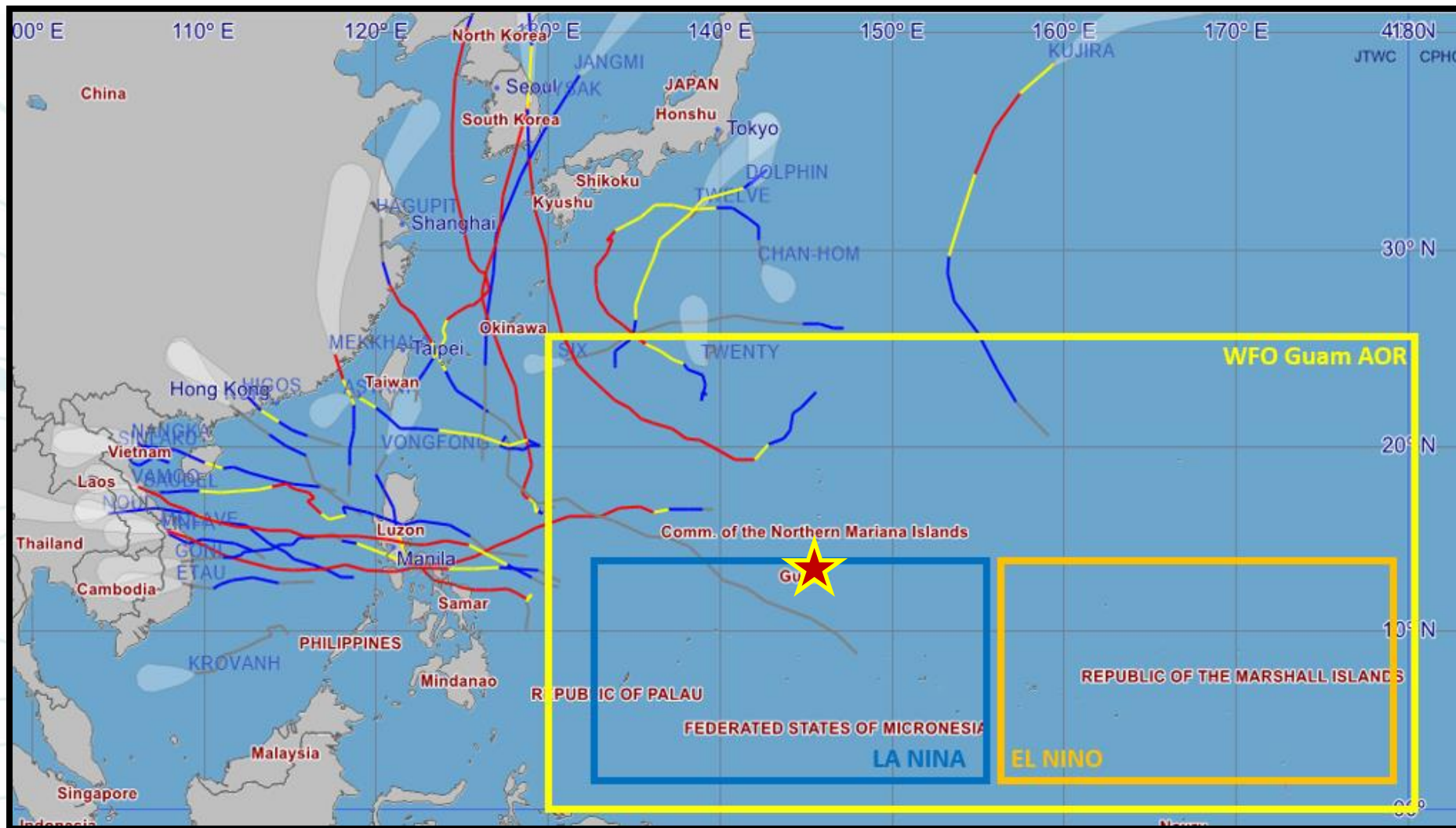
Current Climate: El Niño/La Niña

- 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.

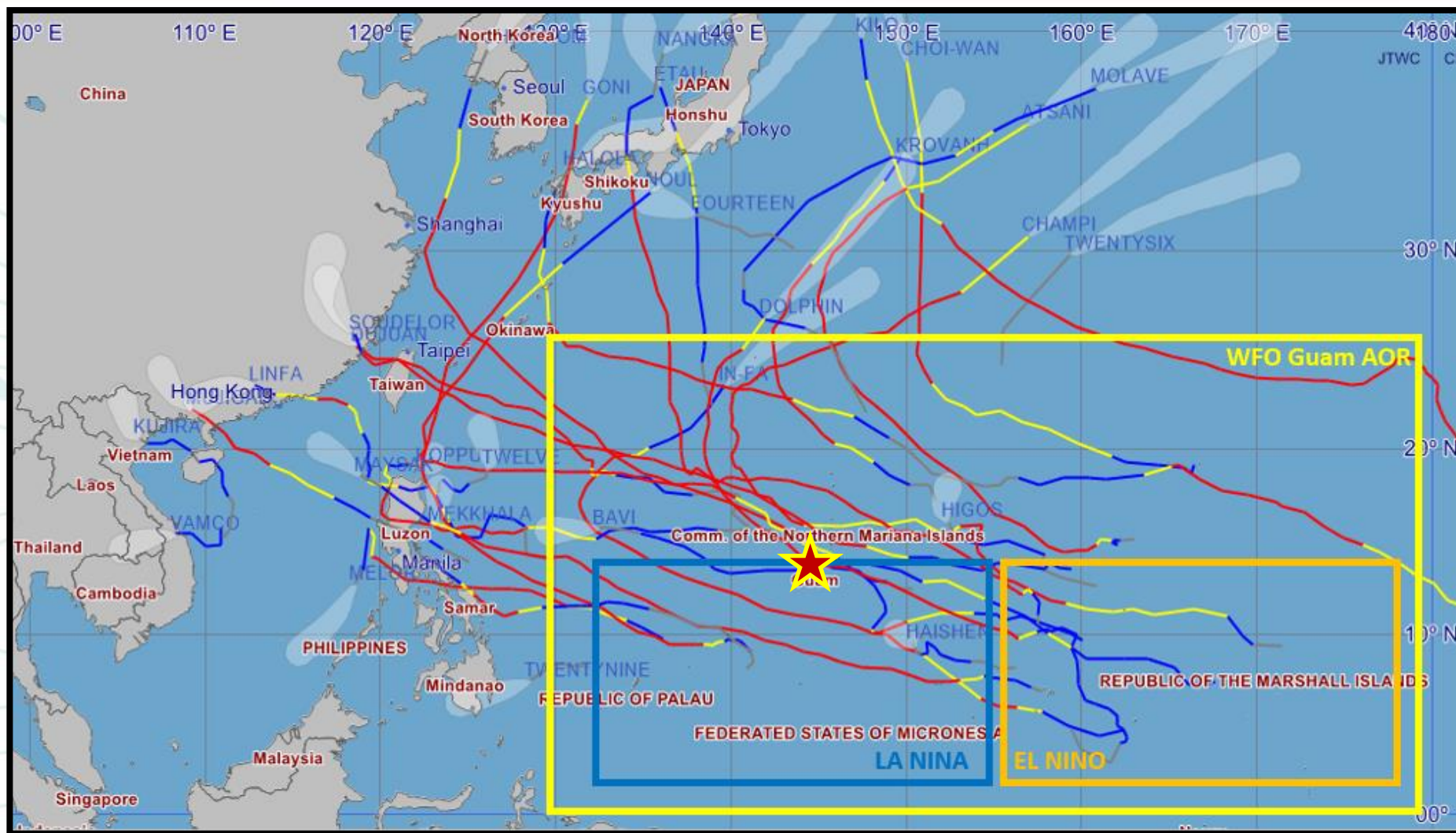
Currently:
La Nina Advisory



2020 Western Pacific Tropical Cyclones: La Niña



2015 Western Pacific Tropical Cyclones: El Niño

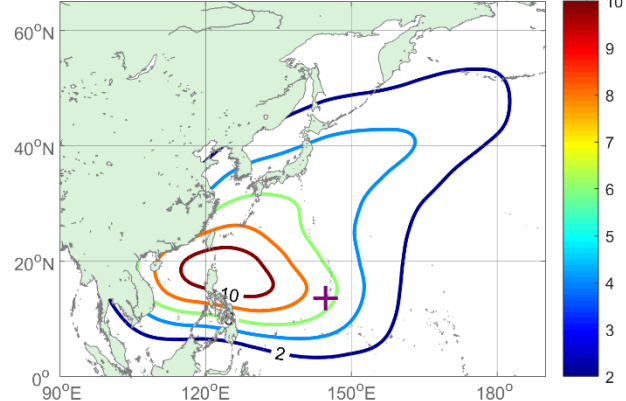


West Pacific (USAPI) Tropical Cyclone Outlook

- NOAA/May 2022

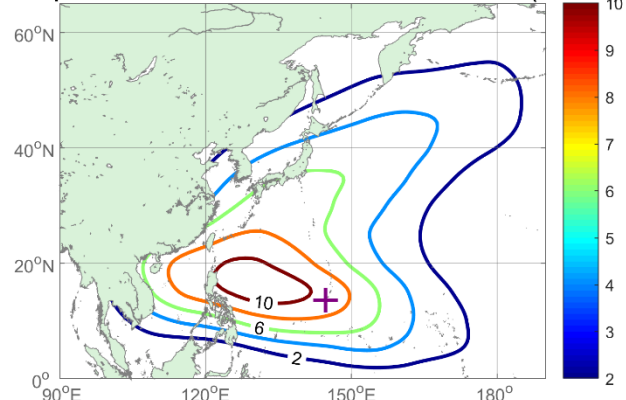
- Collaborative TC Outlook Underway for USAPI; WFO Guam, NWS Pacific Region, NOAA CPC, ARL, OAR; ***Not a basin-wide prediction***
- **Outlook to be Completed and Released by end of May**
- Tentative Outlook: Based on current climate pattern: **Average Activity**

TC Frequencies for La Niña Seasons from 1970-2020 (Jun-Dec)

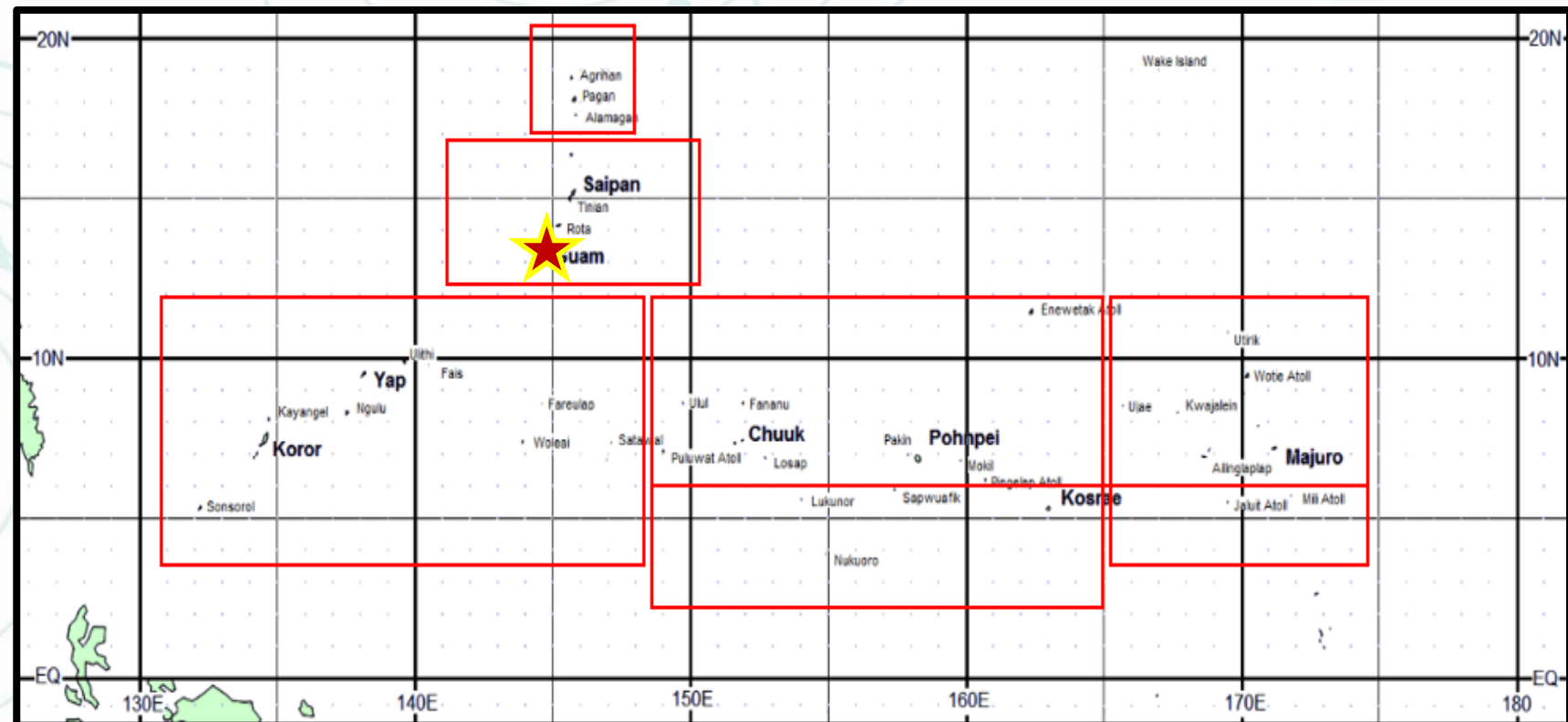


IBTrACS Dataset (Knapp et al 2010; Contours 2.0 TCs)
Purple + Sign is Location of Guam

TC Frequencies for ENSO Neutral Seasons from 1981-2020 (Jun-Dec)



IBTrACS Dataset (Knapp et al 2010; Contours 2.0 TCs)
Purple + Sign is Location of Guam

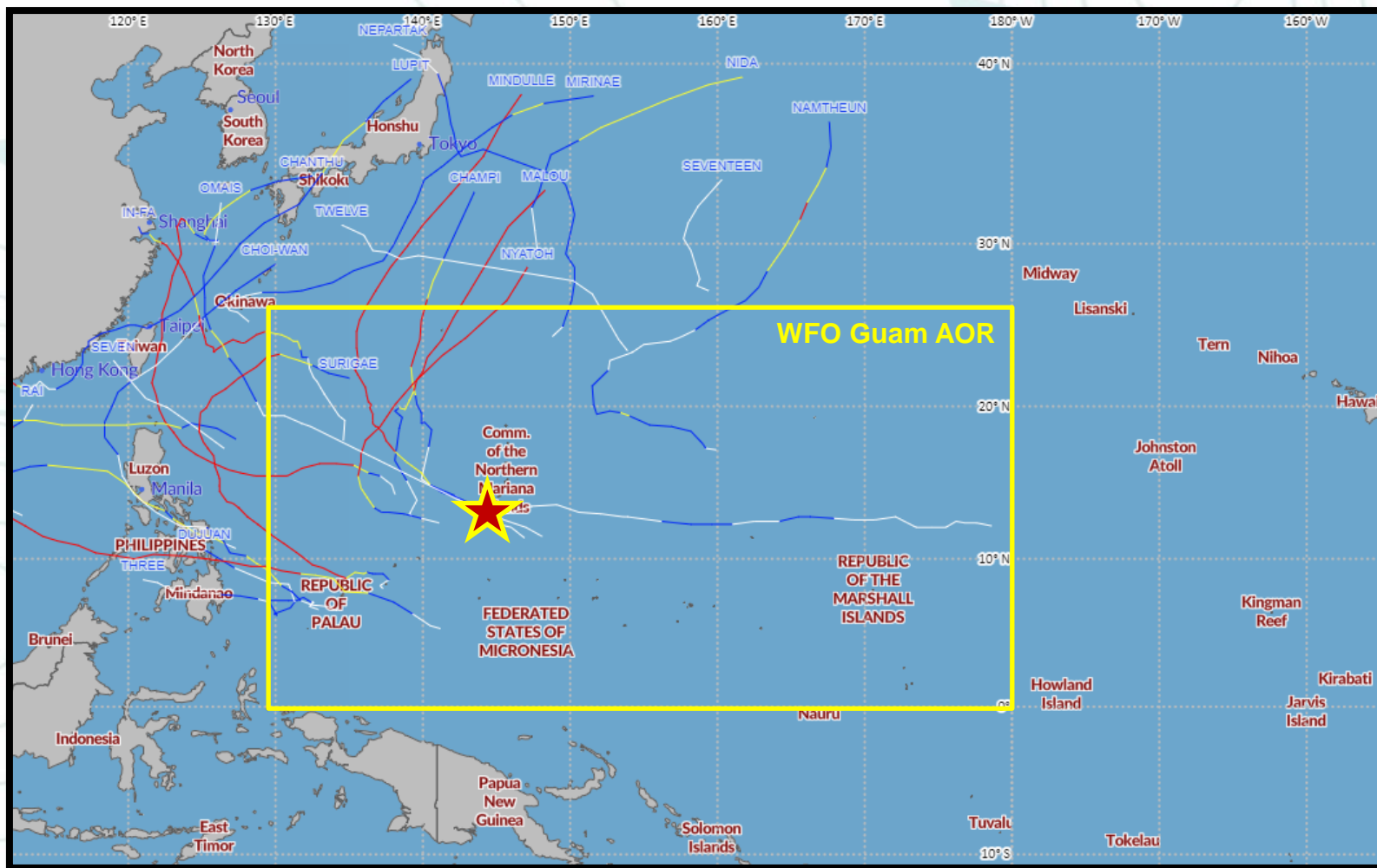


June 2021 Western Pacific TC Outlook for USAPI

REGION	TROPICAL STORMS	TYPHOONS
Marshall Islands (north of 6N)	1 to 2 (1)	0 to 1 (0)
Marshall Islands (south of 6N)	0 to 1 (0)	0 to 1 (0)
Pohnpei State (north of 6N)	1 to 2 (1)	0 to 1 (0)
Chuuk State (north of 6N)	2 to 3 (1)	1 to 2 (1 major) (0)
Kosrae, Pohnpei, Chuuk States (south of 6N)	1 to 2 (0)	0 to 1 (0)
Yap State and Palau	2 to 3 (3)	1 to 2 (1 major) (2)
Guam, Rota, Tinian and Saipan	2 to 3 (2)	2 to 3 (1 to 2 major) (0)
Northern CNMI	1 to 2 (0)	1 to 2 (1 to 2 major) (0)

A near-normal TC Outlook was predicted for the remainder of 2021 for Guam, the CNMI, ROP, FSM and RMI. Numbers in () represent Tropical Cyclones observed.

2021 Western Pacific Tropical Cyclones - USAPI

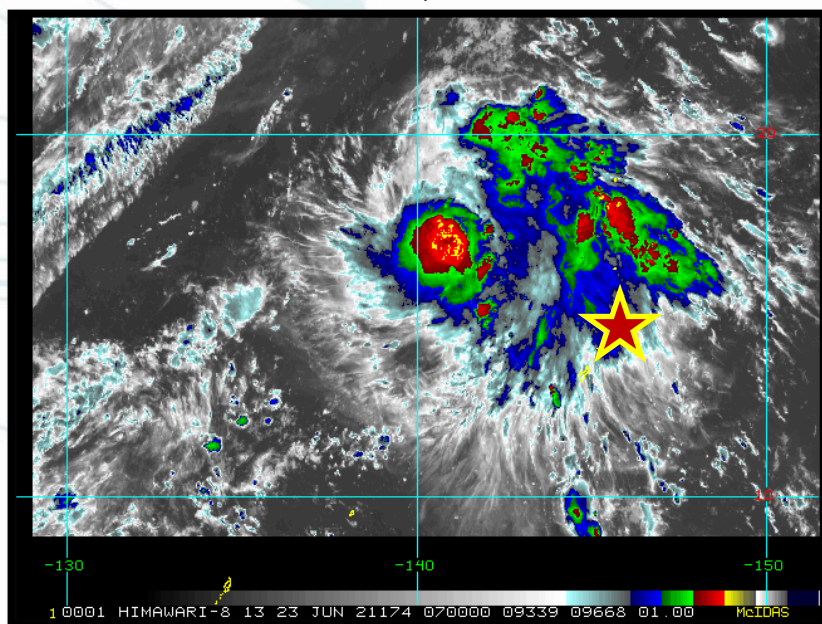


Western North Pacific 2021 Season

Typhoon Champi (06W)

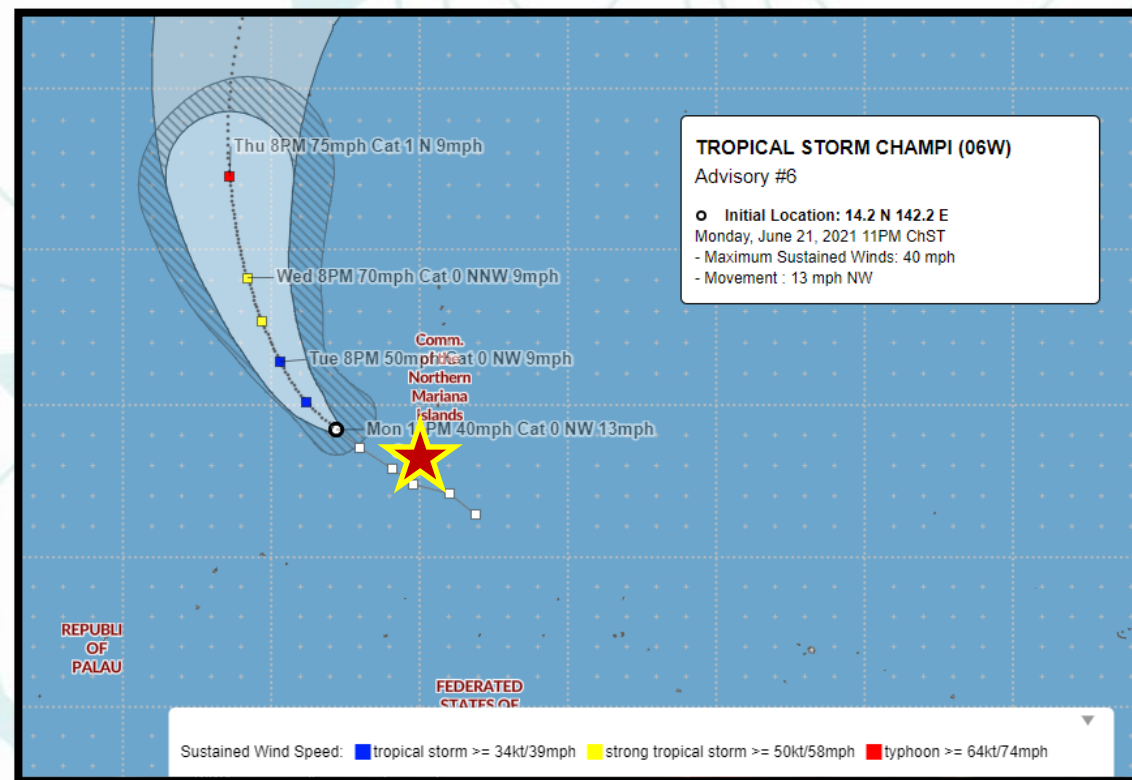
June 2021

Guam, USA



Typhoon Champi IR
2021-06-23 07:20

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



NOAA NWS Typhoon Champi (06W)
Forecast Track and Uncertainty Graphic

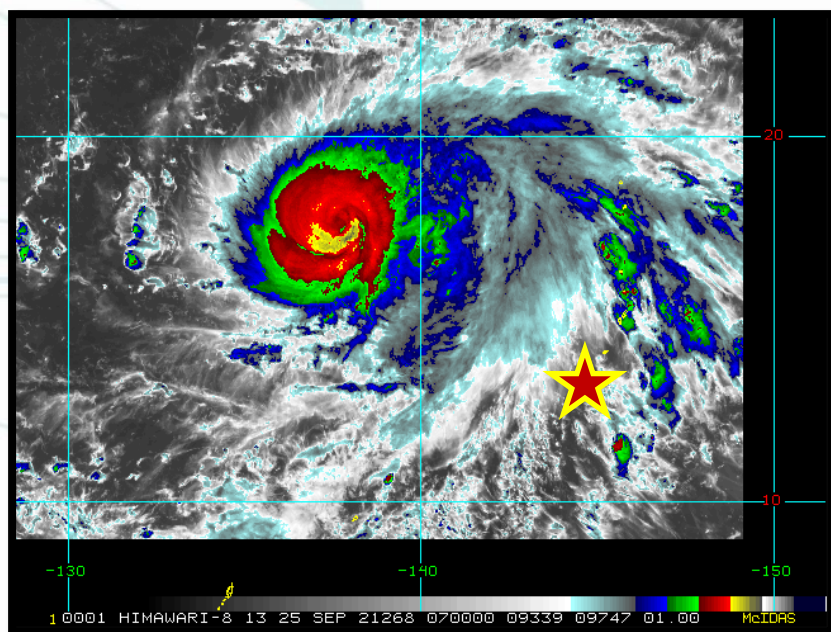
<https://www.weather.gov/gum/Cyclones>

Western North Pacific 2021 Season

Super Typhoon Mindulle (20W)

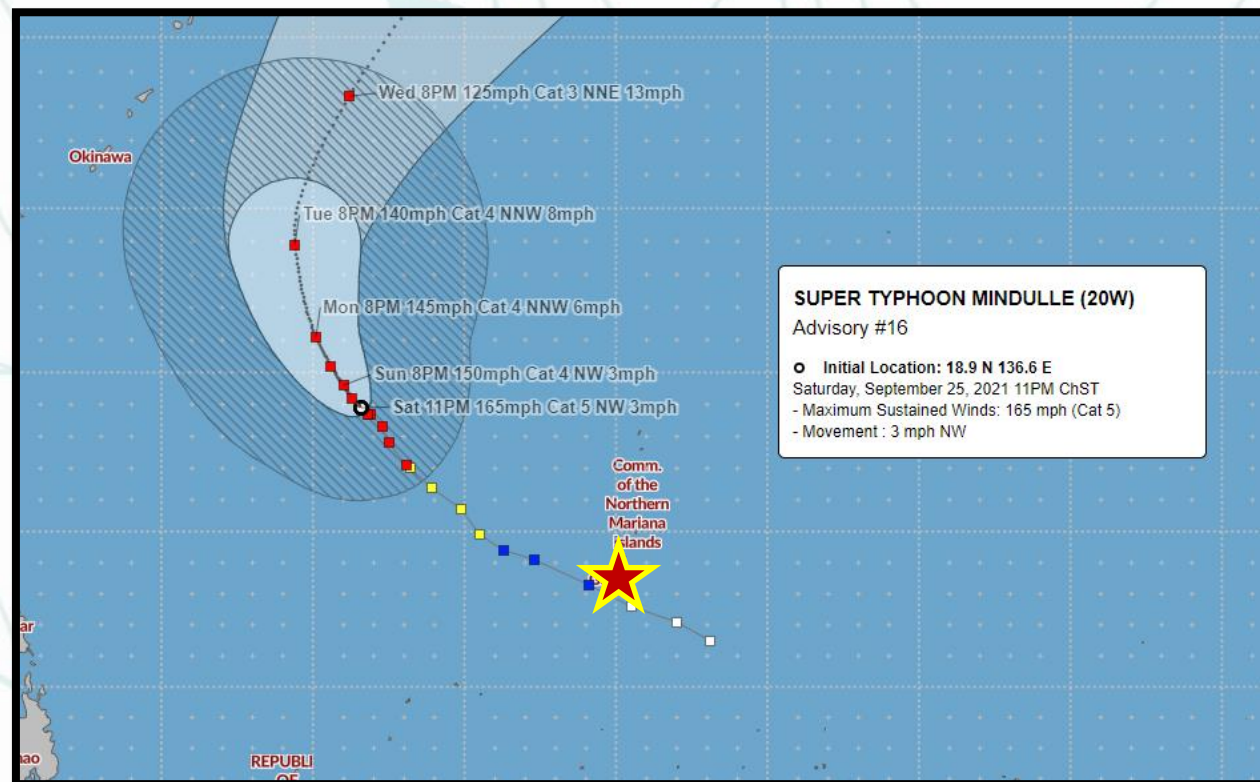
September 2021

Guam, USA



Super Typhoon Mindulle IR
2021-09-25 07:00

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

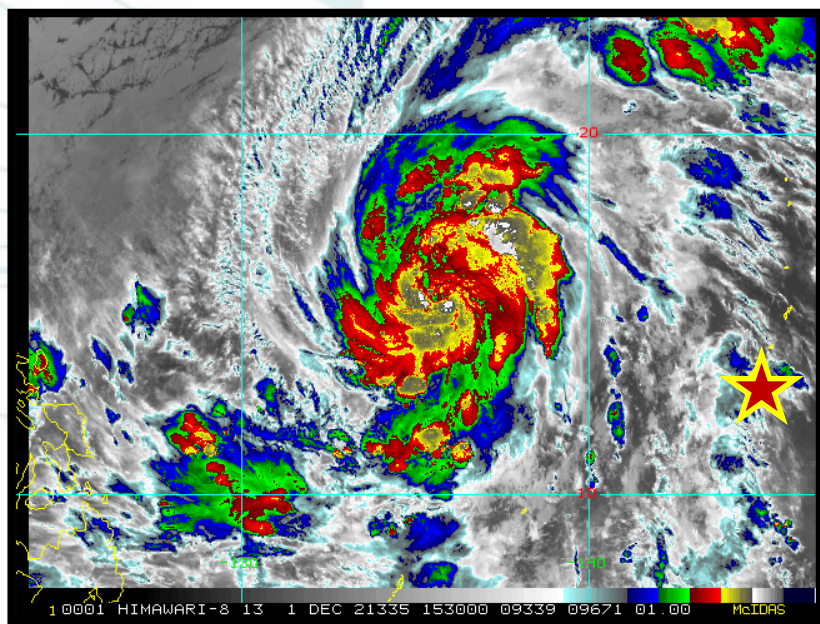


NOAA NWS Super Typhoon Mindulle (20W)
Forecast Track and Uncertainty Graphic

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

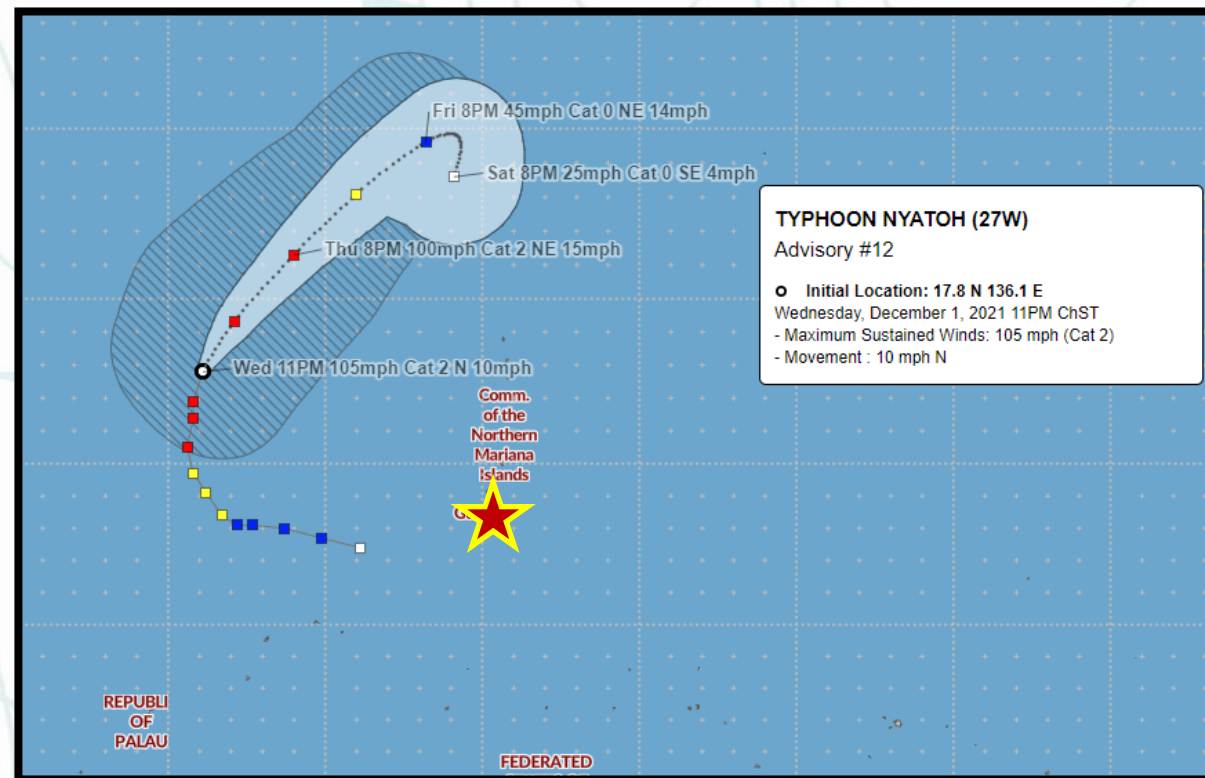
Western North Pacific 2021 Season

Typhoon Nyatoh (27W) November/December 2021 Guam, USA



Typhoon Nyatoh IR
2021-12-01 15:30

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

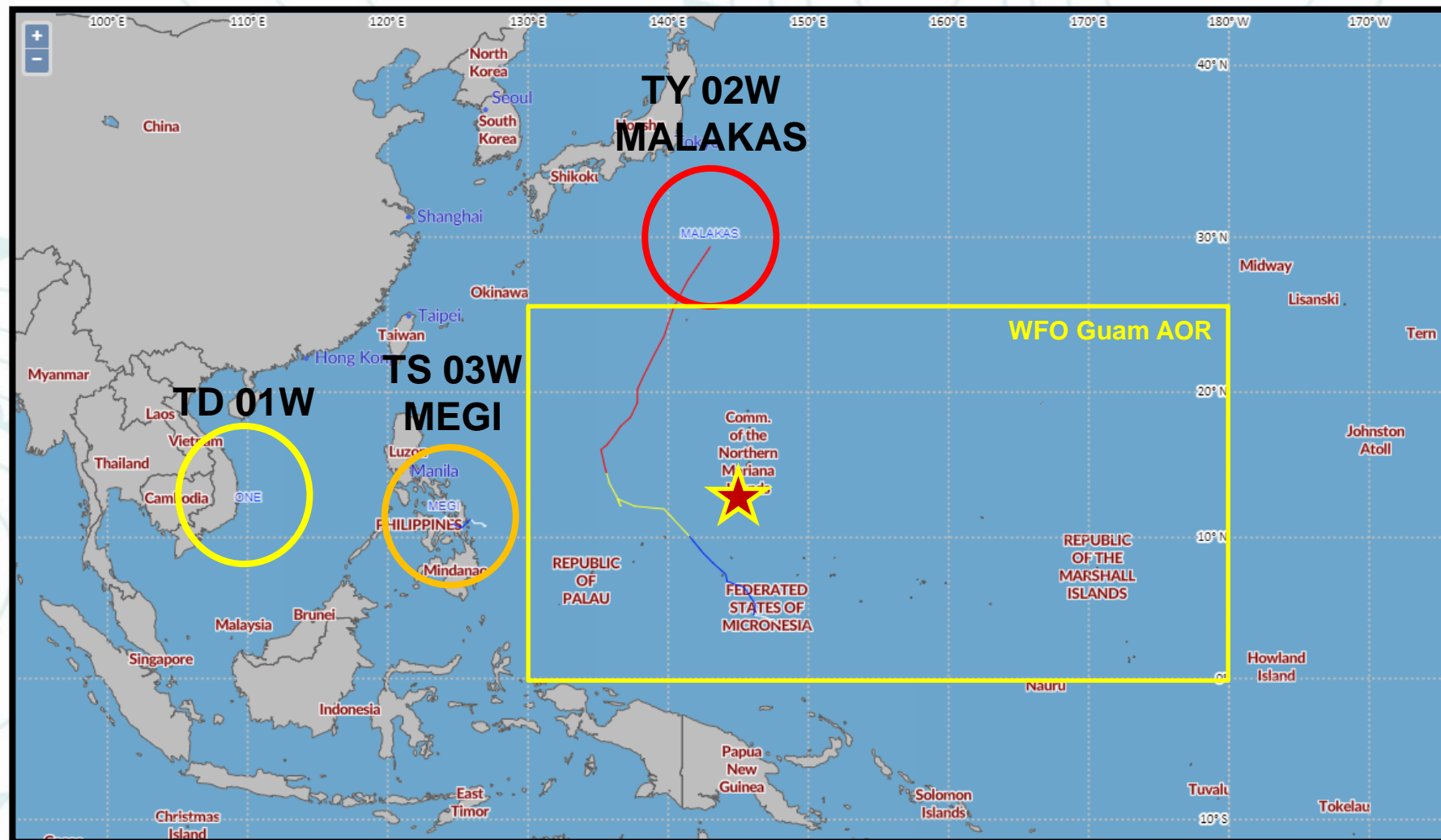


NOAA NWS Typhoon Nyatoh (27W)
Forecast Track and Uncertainty Graphic

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

2022 West Pacific Tropical Cyclones – So Far

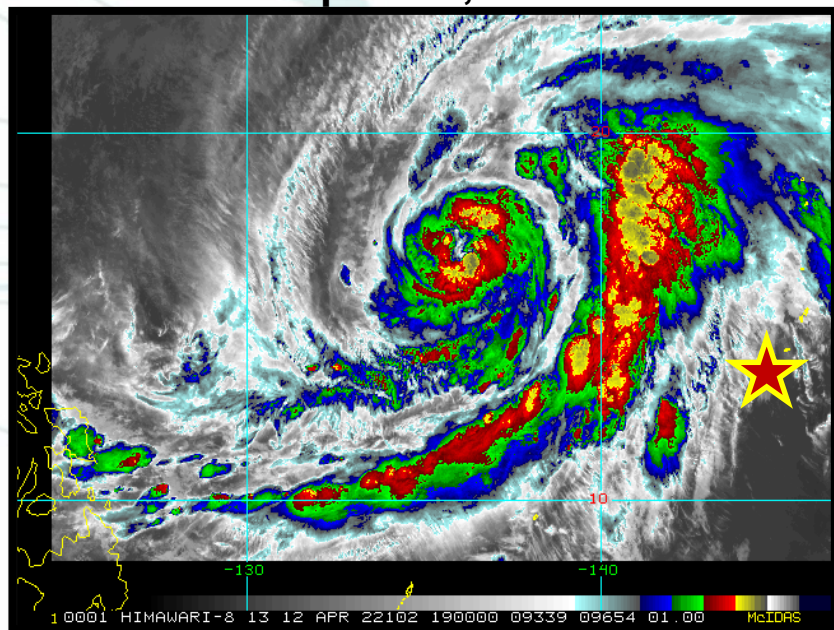
- Tropical Depression 01W
 - JTWC Advisories: 1
 - March 31 to March 31
 - Landfall: Vietnam
- **Typhoon 02W – Malakas**
 - JTWC Advisories: 34
 - April 7 to April 15
 - Yap State, FSM
 - **WFO Guam Watches/Warnings Issued**
- Tropical Storm 03W - Megi
 - JTWC Advisories: 10
 - April 9 to April 11
 - Landfall: Philippines
 - Catastrophic Flooding



Western North Pacific 2022 Season – So Far

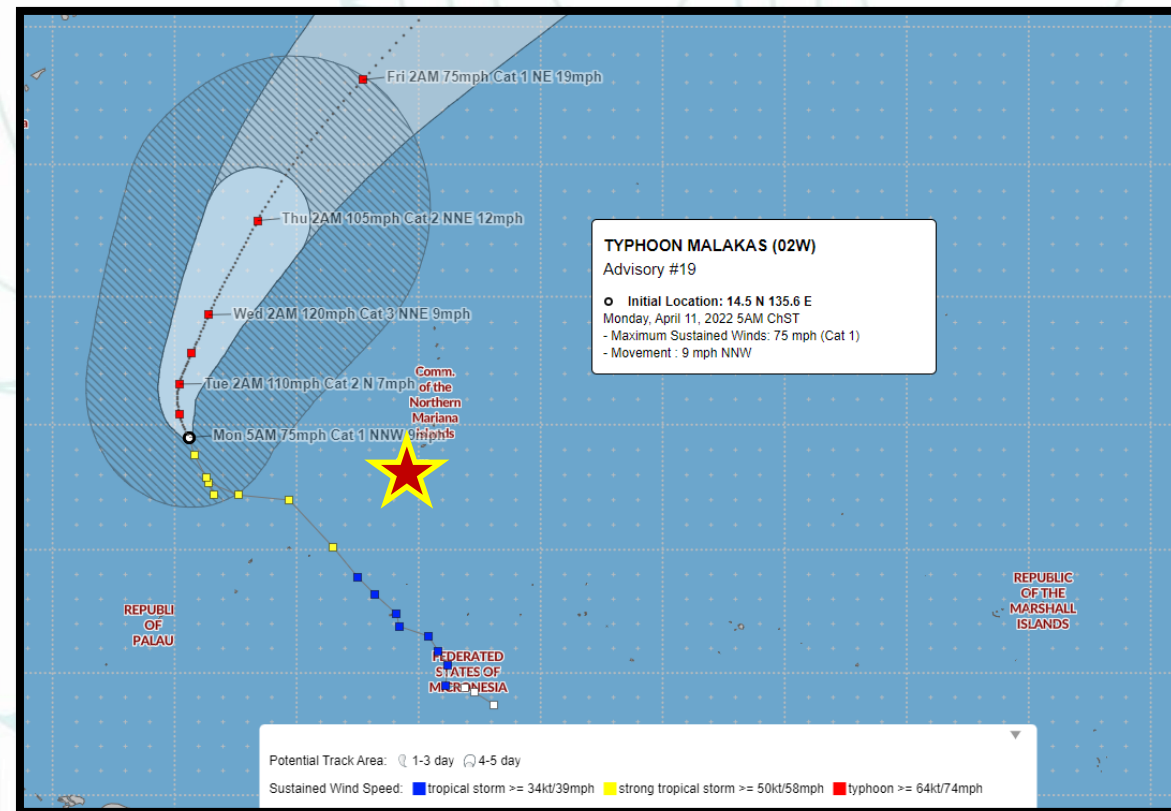
Typhoon Malakas (02W)

April 2022
Yap State, FSM



Typhoon Malakas IR
2022-04-12 19:00

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



NOAA NWS Typhoon Malakas (02W)
Forecast Track and Uncertainty Graphic

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

Thank You! Contact and R.C.C. Information

Join WFO Guam as we host our 2nd Annual Regional Climate Conference

This 2-hour Webinar will feature weather, climate and preparedness topics of interest to islands across the western North Pacific

When:

Thu, May 26, 2022, 9:00-11:00 AM Guam

Wed, May 25, 2022, 1:00-3:00 PM Hawaii

For Registration Information:

Email: Marcus.Aydlett@noaa.gov

NWS Weather Forecast Office Guam

Marcus Landon Aydlett

Warning Coordination Meteorologist

Marcus.Aydlett@noaa.gov

671-777-5337 (C)

671-472-0946 (O)

WFO Guam Operations: nws.gum.operations@noaa.gov

671-472-0900

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