

## July 2023 Micronesia ENSO and Climate Update

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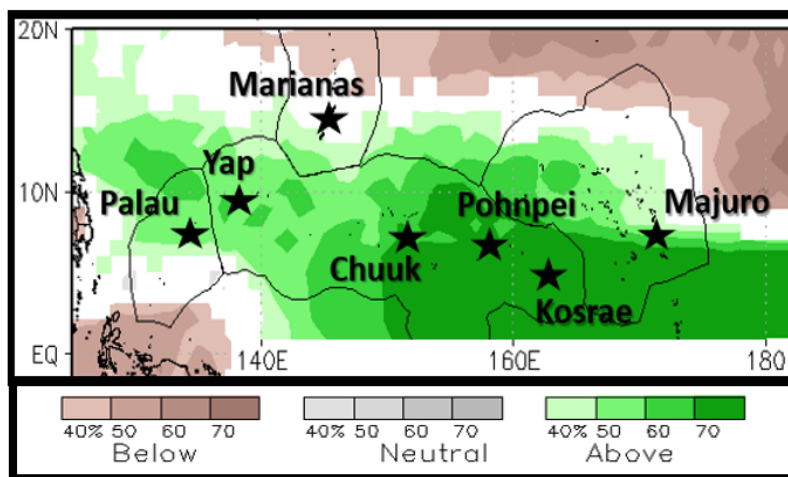
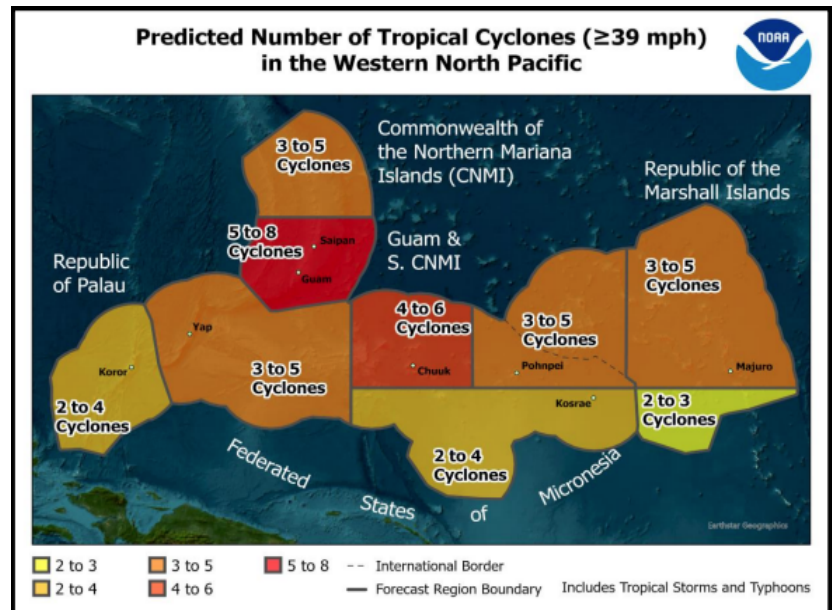
Released: Friday, July 7th, 2023

**OVERVIEW & ENSO ALERT STATUS:** [El Niño Advisory](#). El Niño is here and strengthening. Sea surface temperatures continue to warm across the central and eastern Pacific Ocean along the equator. Recent satellite data shows increased showers and thunderstorms near and east of the international dateline. Sea levels are decreasing across Micronesia. *These are all indications of El Niño*. There is steady model support for continued strengthening of El Niño the next few months, with a 56% chance\* of a strong El Niño during the November-January timeframe.

### TROPICAL CYCLONES (TCs):

El Niño typically brings an increased risk of TCs (including typhoons) to most islands of Micronesia, particularly central and eastern Micronesia. [Above normal activity is expected for the Federated States of Micronesia, the Republic of the Marshall Islands, the Commonwealth of the Northern Mariana Islands and the territory of Guam for the remainder of 2023. The Republic of Palau is forecast to see below-normal to normal activity.](#)

**Please note:** The TC forecast graphic to the right is not a forecast of how many TCs will directly hit or make landfall on a specific island. It is a prediction of general activity within a given region.



**RAINFALL:** Abundant rainfall is expected the next several months for most islands of Micronesia. Tropical systems, regardless of overall strength, may bring excessive rainfall. The image to the left shows the likelihood of above, below, or near-normal rainfall chances for the 3-month Aug-Sep-Oct period. Palau may see drier conditions develop by October. [North American Multi-Model Ensemble \(NMME\) model data](#).

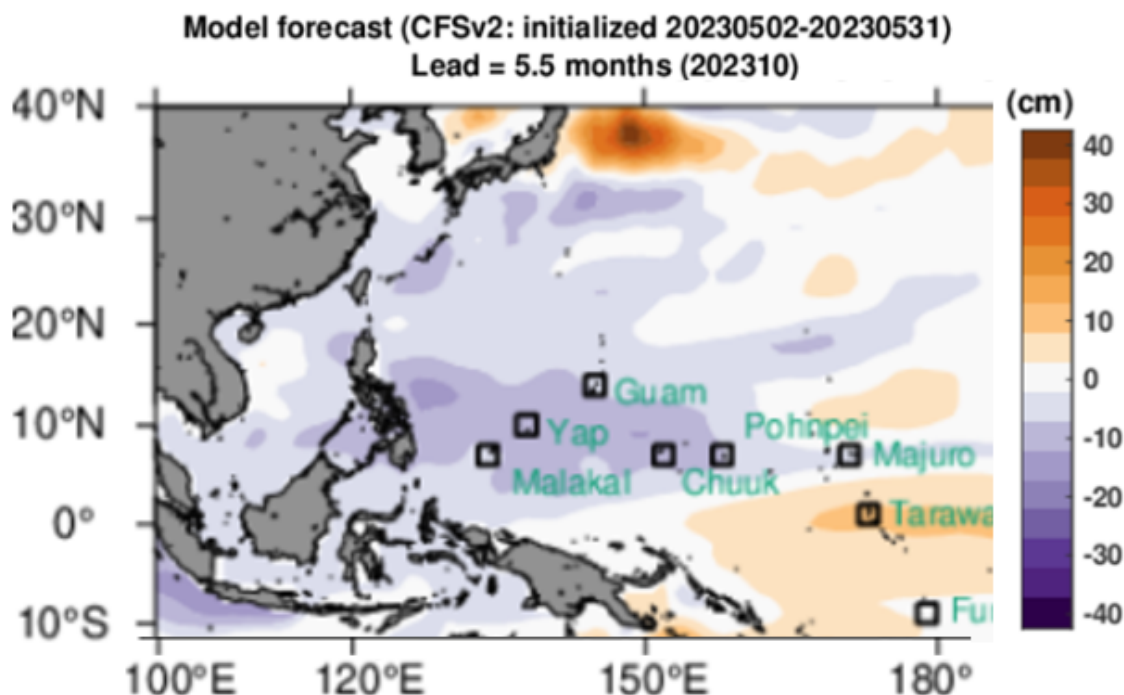
\* based on the Climate Prediction Center ENSO strength probabilities (from Paragraph #1, Overview and ENSO Alert Status)

**SEA LEVELS & CORAL BLEACHING:** Sea levels are forecast to continue decreasing the next several months due to the strengthening El Niño. While lower sea levels should reduce the likelihood of nuisance high tide flooding, large wave events and local storm activity can lead to coastal inundation and wave run-up regardless of El Niño or La Niña. [King Tides](#), or exceptionally high tides, occur during full moons the next few months.

#### King Tides

- ❖ Aug 2nd to Aug 4th full moon cycle
- ❖ Aug 31st to Sept 2nd full moon cycle

Decreasing sea levels will raise the risk of coral bleaching, especially for shallow reef flats and lagoons. The image below, courtesy of the [University of Hawaii Sea Level Center \(UHSLC\)](#), shows forecast sea level heights across the Pacific Ocean for October 2023. Note the lower than normal sea level heights projected for Micronesia.



*Image courtesy of M. Widlansky at the UHSLC*

**LOOKING AHEAD TO 2024:** Significant drought often follows stronger El Niño events as large-scale rainfall patterns shift areas of heavier rainfall farther east across the central and eastern tropical Pacific. If the upcoming rainfall patterns follow these historical El Niño patterns, there would be localized water supply shortages, negative impacts to crops and vegetation, and a greater risk of wildfires for larger islands such as Guam & Palau. This potential drought will be monitored closely the next several months.

#### **QUICK LINKS:**

[National Weather Service Guam Homepage](#)

[Guam Homeland Security Typhoon Preparedness Tips](#)

note that preparedness tips may vary greatly island to island. Contact your local Weather Service Office (WFO Guam, WSO Palau, WSO Yap, WSO Chuuk, WSO Pohnpei, WSO Majuro) and emergency management office for island-specific information.