ANNEX I

MEMBER REPORT

United States of America

Pacific Region

ESCAP/WMO Typhoon Committee
20th Integrated Workshop
Macao, China
02 to 05 December 2025

CONTENTS

I. Overview of tropical cyclones which have affected/impacted Member's area since the last Committee Session

The Pacific Region of the United States of America (USA) National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) encompasses both the western North Pacific Islands in Micronesia (except Kiribati) and the Central Pacific areas. In Micronesia, the USA tropical cyclone activities involve the NWS Pacific Region and the Department of Defense Joint Typhoon Warning Center (JTWC) located at Pearl Harbor, Hawaii. The NWS Weather Forecast Office (WFO) on Guam provides weather forecasts, advisories, watches, and warnings within its Area of Responsibility (AOR). The WFO Guam AOR roughly extends from 130 Degrees East Longitude eastward to the International Date Line, covers an ocean area of more than 4 million square miles (about 10.4 million square kilometers) and includes more than 2000 Micronesian islands. This AOR includes the Commonwealth of the Northern Mariana Islands (CNMI), Republic of Palau, Federated States of Micronesia (FSM), Republic of the Marshall Islands (RMI), and the U.S. Territory of Guam. The FSM is composed of the States of Yap, Chuuk, Pohnpei, and Kosrae.

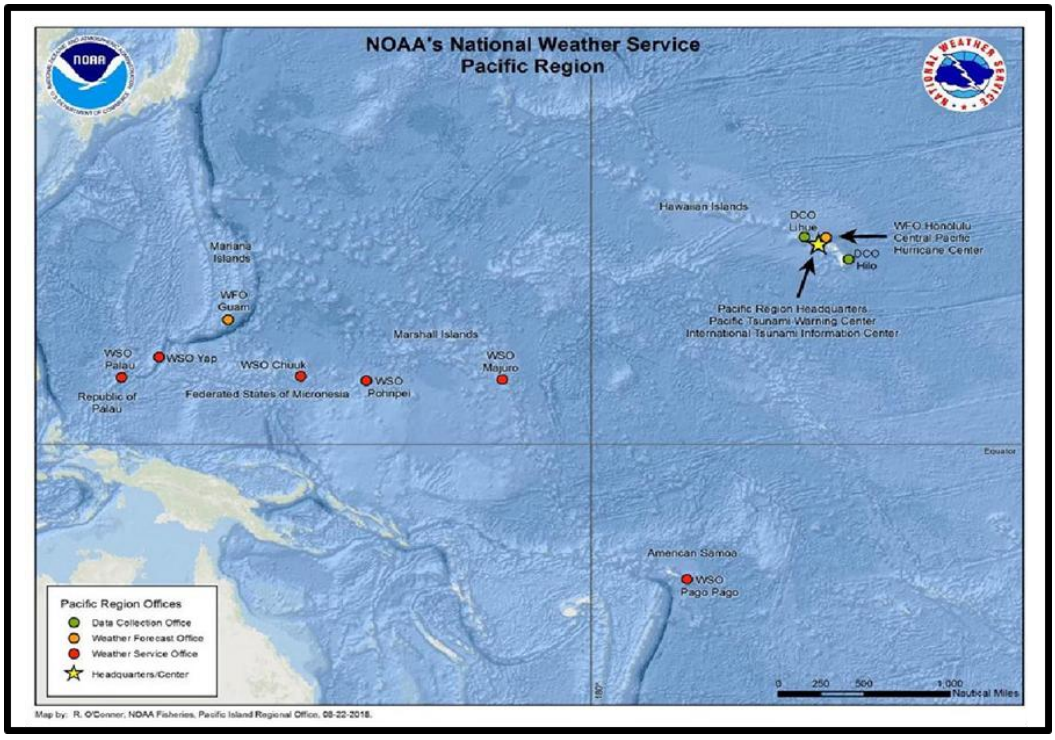

Figure 1: Map of the NOAA National Weather Service Pacific Region

When tropical cyclones occur within the Guam AOR, WFO Guam issues tropical cyclone watches and warnings for the Marianas Islands and the U.S. Affiliated Islands of Micronesia. WFO Guam uses the track, intensity and wind distribution information provided by JTWC to produce plain-language and graphical forecast products for the public and governmental agencies of impending severe weather. In addition, the Central Pacific Hurricane Center (CPHC)

produces wind speed probability (WSP) and time of arrival graphics based on the JTWC forecasts.

The CPHC is co-located with the NWS Honolulu Forecast Office (HFO). The NWS Honolulu Forecast Office activates the CPHC when tropical cyclones form in, or move into, the Central Pacific region from 140 Degrees West Longitude westward to the International Date Line. CPHC is also the World Meteorological Organization (WMO) Regional Specialized Meteorological Center (RSMC) for tropical cyclones in this region and in this capacity is known as RSMC Honolulu. The NWS Forecast Office in Honolulu's AOR covers around 5 million square miles (about 13 million square kilometers) from the Equator to 30N between 140W and 180.

1. Meteorological Assessment (highlighting forecasting issues/impacts)

Central North Pacific (140W to 180, North of the Equator) Overview

The 2025 tropical cyclone season featured near normal activity across the RSMC Honolulu AOR. There were four tropical cyclones in the central North Pacific during the period from 1 January through 15 November 2025. The monthly tropical cyclone distribution was two in July and two in August with one of them continuing into September. This aligned well with the climatological peak of activity for this basin in mid-August. Of note, both tropical cyclones in July developed within the central North Pacific which is considered a rare occurrence.

Hurricane Iona developed into a tropical cyclone inside the central North Pacific basin on 27 July and thus received a Hawaiian name. Hurricane Iona was notable for the rare cyclogenesis in the area near 10N145W, as well as for its rapid strengthening, reaching a peak intensity of 110 knots on 29 July. The movement of Ione was generally steady throughout its track towards the west and west-northwest until it weakened and dissipated just east of the International Date Line near 16N. Iona did not impact any populated land areas.

Tropical Storm Keli also developed into a tropical cyclone in the central North Pacific on 28 July about 420 nautical miles (nm) east of Iona near 140W. Keli strengthened to a tropical storm intensity later on the 28 July and maintained a steady west-northwest movement until dissipating on 30 July about 400 nm south of the Island of Hawaii.

Hurricane Henriette developed over the far eastern North Pacific and moved into the AOR on 7 August at 19N as a tropical storm intensity. Henriette turned to the northwest on 9 August and strengthened to a peak intensity of 75 knots as it passed well to the north of the Hawaiian Islands. Henriette finally weakened and dissipated on 13 August at 36N165W.

Hurricane Kiko developed over the eastern North Pacific and moved into the AOR on 6 September as a major hurricane. The peak intensity of Kiko was 125 knots which was achieved just east of the AOR, but maintained 100 knots or higher intensity until 7 September as it moved northwest towards the Hawaiian Islands. Kiko began weakening as it approached to within 500-800 nm east of the Island of Hawaii and its track took the tropical cyclone to the north of the islands as it weakened to a tropical storm. Kiko dissipated on 10 September about 70 nm north of the island of Oahu. Due to the uncertainty and threat of Kiko impacting the Hawaiian Islands, aircraft reconnaissance was provided by the United States Air Force Reserves and NOAA Chief

Aerial Reconnaissance Coordination All Hurricanes (CARCAH) for Kiko's approach from the east, and ultimate passage to the north of the Hawaiian Islands. Impacts from Kiko were mainly focused on large and damaging surf along the eastern facing shores of the islands which inundated roads.

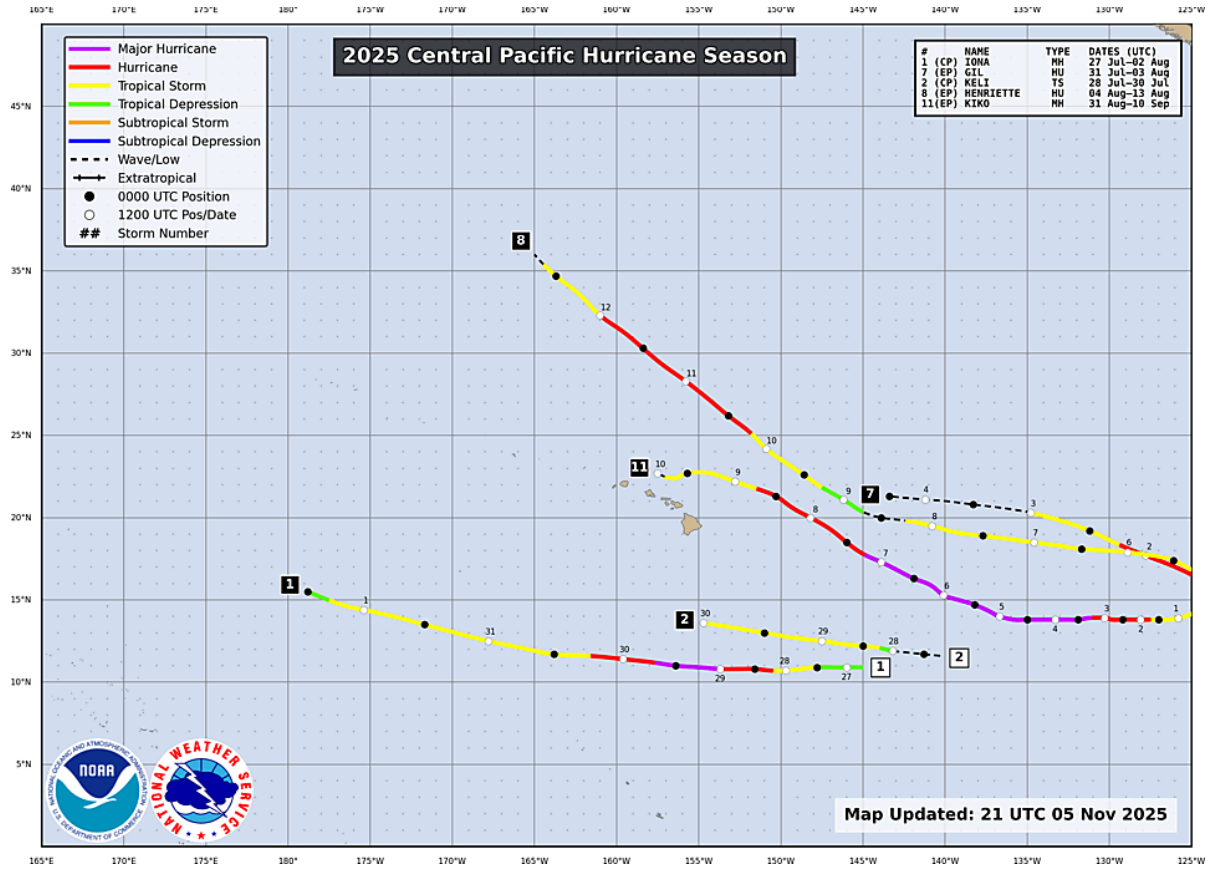

Figure 2: Central North Pacific tropical cyclone and invest tracks from 1 January 2025 to 5 November 2025

In addition, and not pictured above, ex-Typhoon Halong moved from the northwest Pacific towards the northeast and spread catastrophic impacts across the Alaskan West Coast from 11 October through 13 October, bringing coastal flooding and hurricane-force winds (up to 107 mph/93 knots). This followed an earlier storm on 8 October that caused coastal erosion and flooding with the worst impacts north of where Ex-Typhoon Halong's impacts were focused. Record-breaking flooding occurred across parts of the Yukon–Kuskokwim Delta with preliminary maximum measurements of at least 5.9 ft to 6.3 ft (1.8 m to 1.9 m) above the normal highest tide line, although it likely crested higher due to missing data at high tide. Previous records were 3.1 ft to 4.6 ft (0.9m to 1.4 m). There was a state disaster declaration already for the prior West Coast Storm and was amended to include impacts from Ex-Typhoon Halong. The National Guard and U.S. Coast Guard rescued 51 people. Over 1,910 individuals were sheltered in local schools. One fatality was reported in Kwigillingok, and two people remained missing. Numerous communities experienced significant damage including houses off foundations, power outages, and damaged infrastructure (water plants, sewer service, airport runways). Many residents were in shelters and boil water notices were issued.

Western North Pacific (130E to 180, Equator to 25N)

Since October 2024, there have been 17 tropical cyclones in the WFO Guam AOR. Similar to 2024, the 2025 typhoon season had a very slow start with the first tropical cyclone developing in June, which, based on preliminary JTWC data, was the fourth-latest on record.

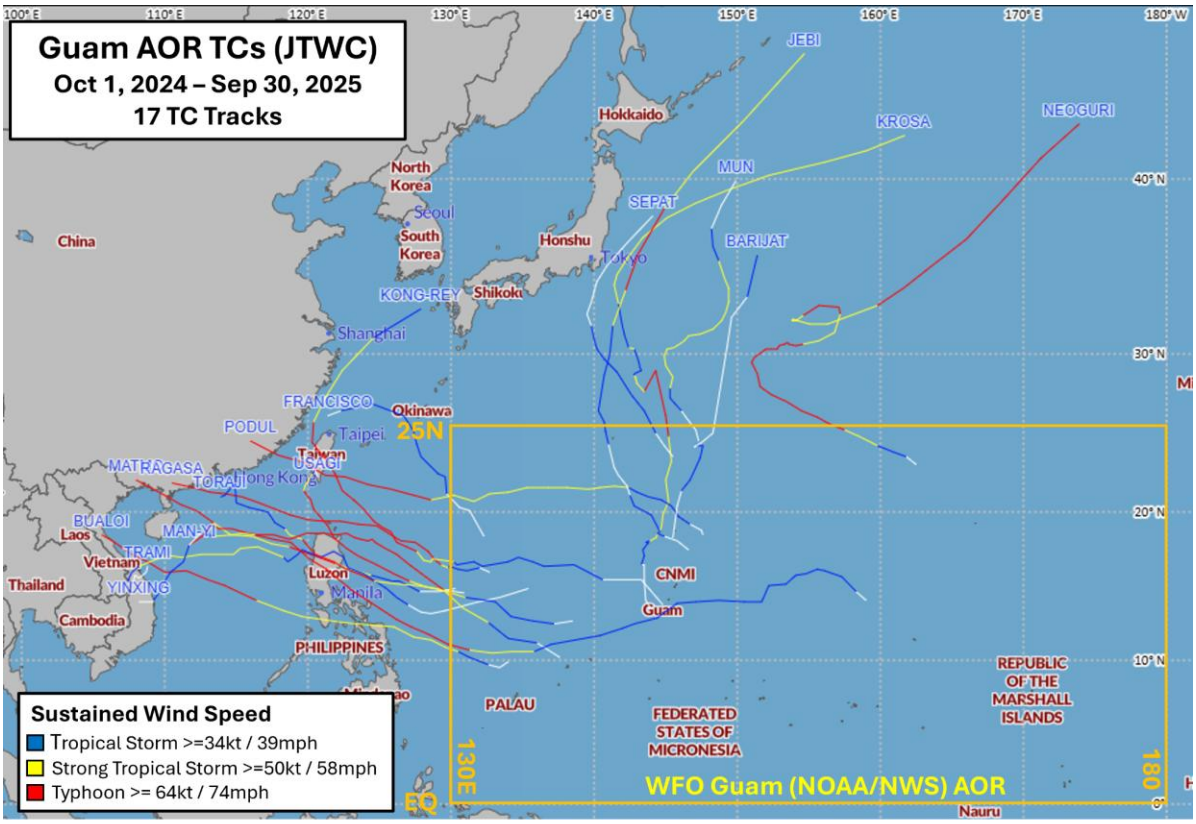

Figure 3: WFO Guam AOR tropical cyclone tracks from 1 October 2024 to 30 September 2025

Seven tropical cyclones developed or passed near various islands of the U.S. Affiliated Pacific Islands and Territories of the western North Pacific, but for only four tropical cyclones, were there more-significant concerns for impacts warranting the issuance of tropical cyclone watches or warnings by NWS Guam. These were Jebi (19W, 2024), Man-yi (25W, 2024), Krosa (12W, 2025), and Podul (16W, 2025).

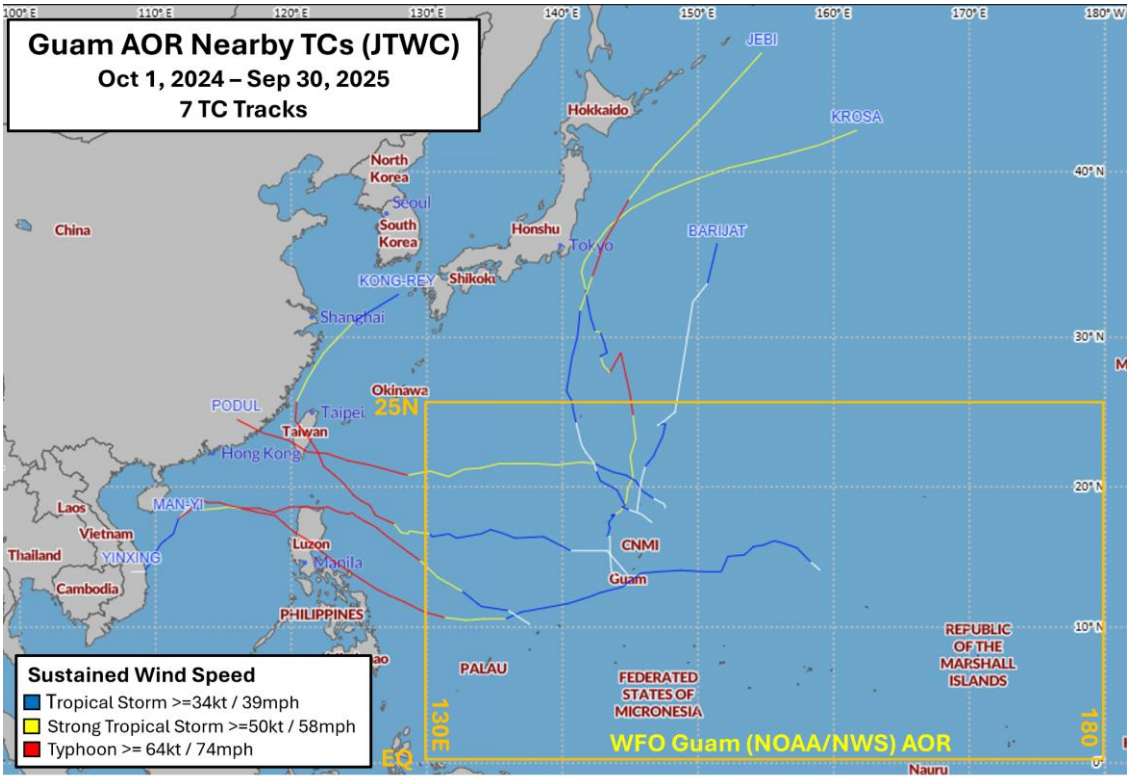

Figure 4: WFO Guam nearby tropical cyclone tracks from 1 October 2024 to 30 September 2025

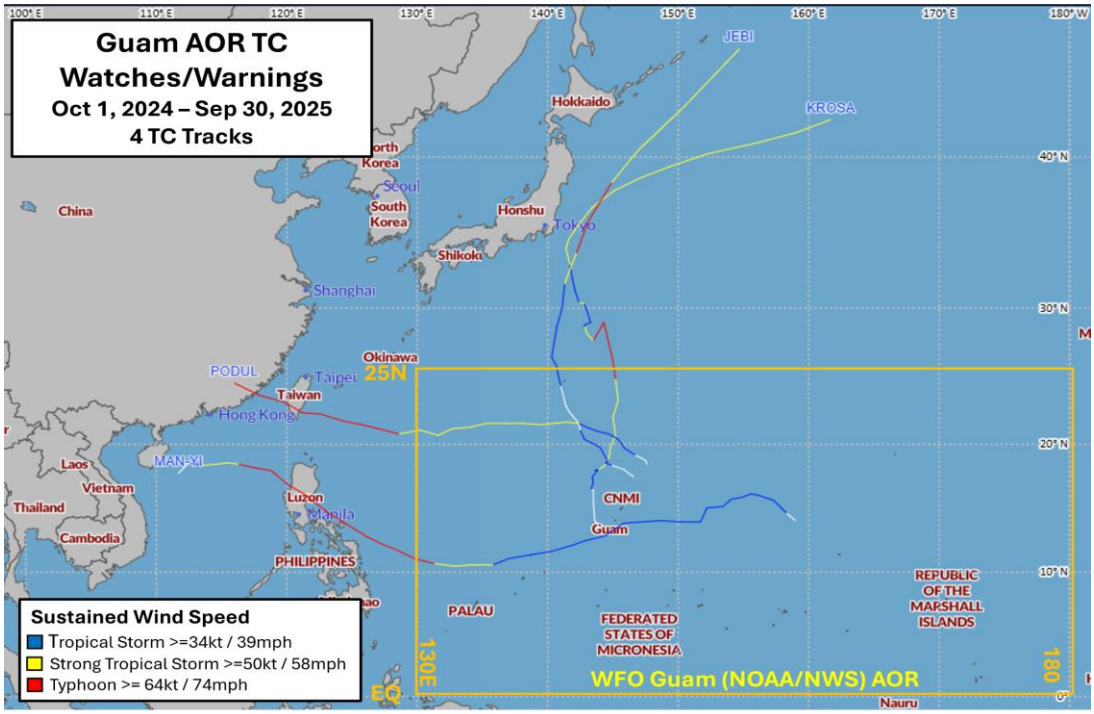

Figure 5: WFO Guam AOR tropical cyclone tracks which warranted a watch/warning from 1 October to 30 September

Tropical storm Jebi (19W, 2024) originated east of the CNMI as a weak circulation (JTWC Invest 95W) at the eastern end of a monsoon-like trough extending across the Philippine Sea

around 25 September. Maintaining an asymmetric wind field and convective spread with strongest winds, showers and thunderstorms found east and south of the center, 95W lifted north-northwest, keeping east of Saipan. The JTWC issued its first warning on Tropical Depression 19W early morning on 27 September as it sat about 50 miles east of Alamagan Island. With JTWC Warning #3, issued early afternoon that same day, JTWC classified 19W as a 35 knots tropical storm, centered 60 miles west-northwest of Pagan Island - which it had passed over a few hours prior. Residents reported strong winds and gusts with very heavy rainfall. No wind damage was reported. Jebi continued northward into early October, 2024, until it finally weakened well northeast of Japan.

Man-yi (25W, 2024) originated from east of the Marshall Islands where JTWC first designated it as Invest 93W, northeast of Majuro, around 8 November. This disturbance continued west-northwest, eventually becoming a tropical depression (25W) on 9 November, and then later, a 34 knots tropical storm that evening. Initially forecast to trek through the Marianas near Anatahan, subsequent forecast tracks began to nudge further south starting with bulletin #7, early Monday morning 11 November. Sheared by northwest winds aloft, heavy convection remained displaced to the south and southeast of the center of Man-yi. Overnight, the fast-moving low-level circulation center began turning west-southwest, then southwest to eventually pass south of Guam on 13 November. With shear weakening, Man-yi began to intensify as it departed the Marianas. Impacts were minimal, limited mainly to downed tree branches, some overturned canopies and downed political campaign signs. No flooding occurred as all the deep convection, having been south and southeast of the center, stayed just south of Guam.

Krosa (12W, 2025) developed within a westward-moving surface trough in northern Chuuk State and was dubbed Invest 98W by the JTWC on 21 July. Overnight (23-24 July), 98W passed over Guam. At this time, the JTWC had issued a Tropical Cyclone Formation Alert (TCFA), indicating the expectation that 98W would become a tropical depression within the next 24 hours. Tropical depression 12W slowly intensified to a tropical storm early on 25 July. Tropical storm Krosa maintained a northerly movement as it stayed just west of the Marianas Island chain. No island experienced a landfall but merely experienced peripheral impacts of the passing tropical storm and, more notably, the ensuing monsoon surge wrapping around from the south to eastern sides of Krosa. WFO Guam communications ahead of Krosa noted back-to-back impacts: first with the near-passage of 12W, then the more substantial, ensuing southwesterly monsoon flow. Model guidance suggested the strongest winds and heaviest rainfall with the overall event would be post-12W and within the monsoon. The official observations reflected that scenario: stronger winds and more-substantial rainfall accumulation were recorded at Saipan in the wake of Krosa.

Podul (16W, 2025) originated as a weak circulation (JTWC Invest 98W) that drifted west-southwest from well east-northeast of the far northern Marianas. On 7 August, after persistent deep convection atop a well-formed low-level circulation center (LLCC), JTWC issued a TCFA, indicating the expectation of a warned-on tropical cyclone within 24 hours. At this point, 98W was just east of Pagan Island. At 0300 UTC, JTWC issued its first bulletin on newly-formed Tropical Depression 16W. The forecast showed a quick turn toward the northwest as it steadily intensified into a tropical storm just north of Agrihan Island. The afternoon/evening hours of 7 August showed an increasingly exposed LLCC drifting north-northwest with heavier convection

displaced south due to northeasterly wind shear aloft. As Tropical Storm Podul continued toward Farallon de Pajaros in the early morning of 8 August, the overall threat of tropical storm winds to reach Agrihan, Pagan, or Alamagan steadily decreased despite the continued heavy rainfall centered over the islands.

2. Hydrological Assessment (highlighting water-related issues/impact)

Central North Pacific (140W to 180, North of the Equator) Overview

This region around the Hawaiian Islands has experienced generally below normal rainfall with typically dry leeward areas noting worsening drought impacts such as dead and dry vegetation and high fire danger. Even wetter windward areas saw the impacts of worsening drought conditions by October and November 2025, which range from moderate to extreme categories (D1-D3).

Category	Description	Possible Impacts
D0	Abnormally Dry	Going into drought: • short-term dryness slowing planting, growth of crops or pastures Coming out of drought: • some lingering water deficits • pastures or crops not fully recovered
D1	Moderate Drought	• Some damage to crops, pastures • Streams, reservoirs, or wells low, some water shortages developing or imminent • Voluntary water-use restrictions requested
D2	Severe Drought	• Crop or pasture losses likely • Water shortages common • Water restrictions imposed
D3	Extreme Drought	• Major crop/pasture losses • Widespread water shortages or restrictions
D4	Exceptional Drought	• Exceptional and widespread crop/pasture losses • Shortages of water in reservoirs, streams, and wells creating water emergencies

Figure 6: NWS Drought categories and indicators

Inferring from seasonal Outgoing Longwave Radiation (OLR) anomalies, drier than normal weather has been noted south of the Inter Tropical Convergence Zone (ITCZ) affecting the islands and atolls of Kiribati north of the equator.

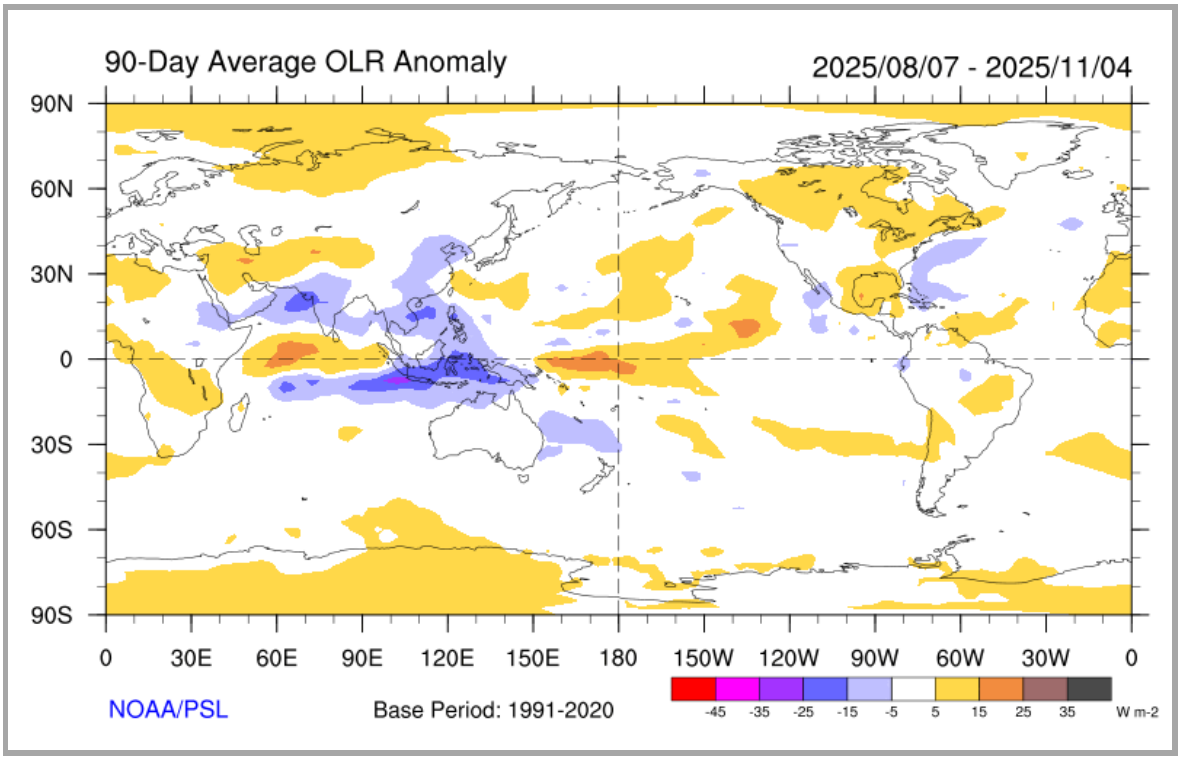

Figure 7: 90-Day Average OLR Anomaly ending on 4 November 2025

Western North Pacific (130E to 180, Equator to 25N) Overview

The hydrologic conditions across the region were fairly benign over the past year. The region saw El Nino-Southern Oscillation (ENSO) Neutral conditions through the entire period and the region experienced 17 tropical cyclones in or near the Guam AOR, with only 3 that required watches or warnings.

The first is Typhoon Man-yi (25W, 2024). Man-yi originated from east of the Marshall Islands, eventually becoming a tropical depression (25W) on 9 November. Later, that evening, Man-yi became a tropical storm. Initially forecast to trek through the Marianas near Anatahan, subsequent forecast tracks began to nudge further south starting with bulletin. A Flash Flood Warning (A flash flood warning means that dangerous flash flooding is occurring or is imminent, and it requires immediate action. This warning is issued when excessive rainfall, dam failure, or other causes lead to a rapid rise of water, creating an imminent threat to life and/or property.) was issued for the Marianas on 12 November 2024, but was cancelled that evening. Rainfall with Man-yi remained insignificant, with no flooding occurring as all the deep convection stayed just south of Guam.

Next was Tropical Storm Krosa (12W, 2025). Krosa developed just west of Guam the morning of 24 July, 2025, after moving over Guam as Invest 98W. Tropical depression 12W slowly intensified to a tropical storm early on 25 July. Tropical storm Krosa maintained a northerly movement as it stayed just west of the Marianas Island chain. No island experienced a landfall

but merely experienced peripheral impacts of the passing tropical storm and, more notably, the ensuing monsoon surge wrapping around from the south to eastern sides of Krosa. WFO Guam communications ahead of Krosa noted impacts of a two-part weather event: first with the near-passage of 12W, then the more substantial, ensuing southwesterly monsoon flow. Model guidance suggested the strongest winds and heaviest rainfall with the overall event would be post-12W and within the monsoon. The official observations reflected that scenario: stronger winds and more-substantial rainfall accumulation were recorded at Saipan in the wake of Krosa. A Flash Flood Watch (A flash flood watch means that weather conditions are favorable for flash flooding to occur, but it is not happening yet. It is a "be prepared" alert that advises people in the affected area to monitor later forecasts, review their action plans, and be ready to act if a warning is issued.) was issued for Guam and the CNMI during the afternoon of 23 July, then cancelled the afternoon of 25 July. Although localized heavy rainfall did occur, it was not enough to produce flash floods. Urban and small stream flooding did occur.

Last was Tropical Storm Podul (16W, 2025). Podul originated as a weak circulation (JTWC Invest 98W) that drifted west-southwest from well east-northeast of the far northern Marianas. On 7 August, after persistent deep convection atop a well-formed LLCC, with Tropical Depression 16W developing during the early afternoon of 7 August. The forecast showed a quick turn toward the northwest as it steadily intensified into a tropical storm just north of Agrihan Island. A Tropical Storm Watch was issued that same afternoon. However, no warnings were issued. Although the overall threat of tropical storm winds reaching Agrihan, Pagan, or Alamagan steadily decreased, the islands did receive heavy rainfall.

There were no large organized Flash Flood events over the past year for the Marianas. However, several Flash Flood Warnings were issued throughout the year due to localized heavy rainfall events. Only localized light damage occurred with these events. There were also numerous Flood Advisories for Urban and Small Stream nuisance flooding events.

Drought was more of a problem for the region over the past year. Drought conditions began early in 2025, with the first Drought Information Statement issued on 24 January 2025. A very dry November and dry December led to Severe Drought conditions for Tinian and Saipan in the Marianas, Moderate Drought for Yap Proper and nearby islands in Yap State, and Kwajalein in the Republic of the Marshall Islands (RMI). Several other locations were abnormally dry, including Guam and Rota. In February and March 2025, Moderate Drought spread to several islands and atolls in the RMI, including Kwajalein, Wotje, Utirik and nearby islands and atolls; and to Guam and Rota in the Marianas.

By May 2025, drought conditions progressed among some of the islands, with Tinian and Saipan in the Marianas and Wotje and Utirik in the RMI reaching Extreme Drought. Severe Drought spread to Guam and Rota in the Marianas, Pingelap in Pohnpei State, and Utirik and Ailinglaplap in the RMI. By the beginning of June 2025, drought conditions worsened for Guam and Rota in

the Marianas, reaching Extreme Drought. Conditions did improve for Tinian and Saipan and began to improve for other islands. Drought conditions began to improve in late June, 2025. By early August 2025, the final Drought Information Statement was issued.

3. Socio-Economic Assessment (highlighting socio-economic and DRR issues/impacts)

Central North Pacific (140W to 180, North of the Equator) Overview

Hurricane Kiko's impacts on the islands focused entirely on surf. Surf heights reached 10 to 15 feet along east facing shores with some areas observing up to 20 feet waves on outer reefs. Beach erosion and debris overwash was observed along coastal/beach areas and lower lying roadways. A High Surf Warning was issued for east facing shores with peak surf heights up to 15 to 20 feet in advance of the impacts and communicated with the State and County Emergency Managers.

RSMC Honolulu conducted dozens of tropical cyclone related outreach events, over 100 broadcast and print media interviews, and many formal emergency manager briefings during the 2025 hurricane season.

Western North Pacific (130E to 180, Equator to 25N) Overview

WFO Guam conducted formal presentations for, and held meetings with, territorial officials (Governors and Lt. Governors), emergency managers, military leaders and the Federal Emergency Management Agency (FEMA). WFO Guam staff also conducted virtual meetings with state and national level decision makers and leaders in the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands. The WFO completed numerous broadcast, radio and print media interviews, in support of standard, and increased weather communications to the public during, and outside of, significant weather events. WFO Guam also participated in dozens of outreach events and school visits throughout the year to support weather and disaster readiness and preparedness.

From 1 October 2024 to 30 September 2025, four tropical cyclones had socio-economic impacts in the WFO Guam Area of Responsibility (AOR): Super Typhoon Kong-rey (23W-October 2024), Super Typhoon Man-yi (25W-November 2024), Typhoon Krosa (12W-July 2025) and Typhoon Podul (16W-August 2025). Each of these tropical cyclones affected islands in the WFO Guam AOR during their formative or early stages, with all except Kong-rey resulting in tropical storm or typhoon watches or warnings.

Super Typhoon Kong-rey (23W) formed near the Mariana Islands in late October, with the broad system affecting islands of Chuuk and Yap States in the FSM, the Territory of Guam and the CNMI. Initiating as a cluster of weak circulations/tropical disturbances, it became Tropical Depression 23W near Guam. However, despite its passage close to Guam, the heaviest impacts were over the islands of Saipan and Tinian, about 200 km north-northeast of Guam. Wind gusts reached up to 50 knots with heavy rainfall (300-400 mm in 24 hours) resulting in the worst flash flooding in 15 years.
Several vehicles, homes and businesses took in flood waters resulting in minimal damage. Farther south, four lives were lost at sea in the Chuuk Lagoon due to strong waves and currents.

Tropical Storm Man-yi (25W) passed near Guam in mid-November 2024 with little or no impacts. Originating well to the east near the Marshall Islands, it tracked westward as a tropical depression or a weak tropical storm. A sheared atmosphere for much of its lifespan prevented Man-yi from developing significantly. Tropical Storm Warnings were issued for Guam, Rota, Tinian and Saipan, but soon ended as Man-yi passed just south of Guam. Peak wind gusts reached 42 knots on Guam with no significant rainfall across the Marianas. No injuries were reported, but 67 residents on Guam evacuated to emergency shelters, particularly from northern areas of Guam, where many live in substandard housing (wood and tin construction versus reinforced concrete). Northern Guam also experienced the most significant impacts from Super Typhoon Mawar in 2023.

In July 2025, Tropical Storm Krosa (12W) formed in Chuuk State, passing over Guam as a developing tropical disturbance. It was upgraded to a tropical depression just after passing by Guam and later, upgraded to a tropical storm west of the CNMI. Tropical Storm Watches were issued for all of the CNMI, with Warnings later issued for the northernmost islands. Direct impacts were minimal with the populated islands receiving little or no significant impacts. However, a monsoon surge followed behind, resulting in a significant wave event resulting in coastal flooding, inundation and erosion. One surfer received minor injuries after being pulled out over the reef in strong currents and needing rescue.

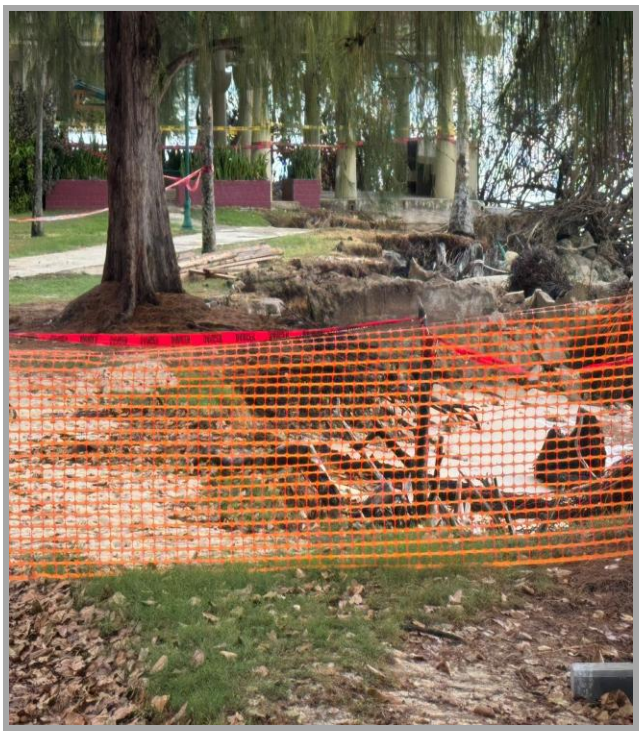
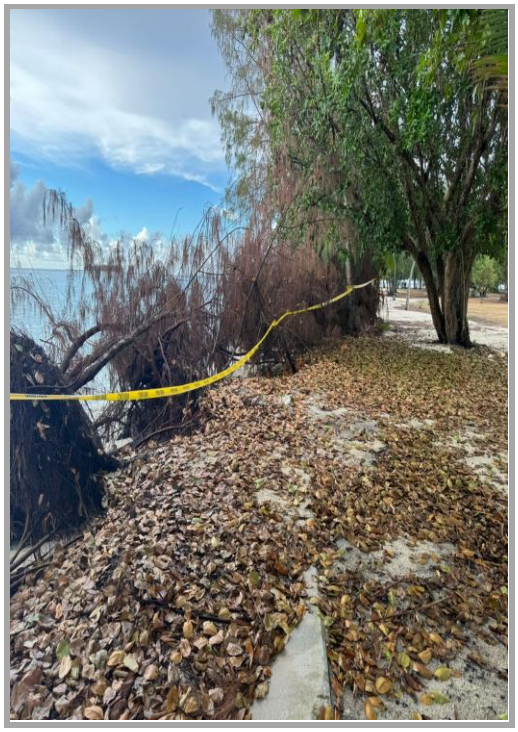

Figure 8: Aftermath of significant inundation and erosion at Saipan's Micro Beach in the CNMI. Large monsoon swell and surf inundated low-lying coastal areas along south and west-facing reefs and beaches following Krosa's passage.

Tropical Storm Podul (16W) developed well northeast of Saipan, becoming a tropical depression just east of Pagan Island in the far Northern CNMI. Tropical Storm Watches were issued for the northernmost islands, with a combined population of 5 people at the time. Podul was upgraded to a tropical storm as it passed north of Pagan Island. No significant impacts, damage or injuries were reported.

Other than the four marine-related casualties in Chuuk State, there were no other direct fatalities resulting from tropical cyclones in the WFO Guam AOR. WFO Guam maintains a forward-leaning posture to bolster its early warnings and significant weather communications. These efforts have succeeded in mitigating the risk of tropical cyclones to communities across the western North Pacific.

WFO Guam is the only official local weather source in the region. Unlike cities and states in the continental U.S. where broadcasters communicate weather information to the public, residents in the region rely on WFO Guam and its partners to communicate weather information. In an effort to increase weather communications, WFO Guam maintains close partnerships with local media partners for routine and event-driven engagement. Facebook Live broadcasts remain a favored method to reach a large and interactive audience before, and during, storm events in the region. WFO Guam continues to issue weekly Regional Weather Outlooks to provide early warning and weather information to decision makers across the region. Originally distributed to 30 contacts, the distribution list now includes nearly 700 regional and national decision makers, island leaders and Non-Governmental Organizations, and includes hydrologic information such as droughts, long-term rainfall variability, and Weeks 2 and 3 global tropic hazards information from the

Climate Prediction Center. A key goal of this direct deliverable is to foster awareness, direct engagement and discussion, and anticipatory actions at all levels of government.

4. Cooperation (highlighting regional cooperation and related activities)

Tropical Cyclone Iona nearly reached the RSMC Tokyo AOR as it weakened in intensity. Pre-coordination between RSMC Honolulu and RSMC Tokyo was executed according to plan with email communications.

Continued collaboration with respect to Tropical Cyclone Significant Meteorological Information (SIGMET) following the agreements between MWO Honolulu and the Badan Meteorologi, Klimatologi, dan Geofisika (BMKG), Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), and Honolulu and Japan Meteorological Agency (JMA) using the JMA collaboration portal.

II. Summary of Progress in Priorities supporting Key Result Areas

1. Weather Ready Nation Program

Main text:
Striving for community resilience at a national scale remains a key goal for the NOAA National Weather Service. Since embarking on the Weather Ready Nation (WRN) program and expanding it to include the Ambassador Initiative in 2014, NOAA and its partners are moving to make the country weather- resilient.

As a WRN Ambassador, partners commit to working with NOAA and other Ambassadors to strengthen national resilience against extreme weather. Throughout 2025, the WRN Ambassador initiative helped and continues to help unify the efforts across government, non-profits, academia, and private industry toward making the nation more ready, responsive, and resilient against extreme environmental hazards.

For more on the National Weather Service's Weather-Ready Nation Ambassador Program, visit https://www.weather.gov/wrn/

Identified opportunities/challenges, if any, for further development or collaboration:
NWS will continue to use the opportunity to engage in multilateral forums and engage with partners in international agreements to help infuse the global weather enterprise with our new weather and climate information, new science, and innovative technology and seek opportunities to learn best practices from other countries to improve our technology and service delivery. We will continue to expand our partnerships to help improve and sustain observing and communications networks essential for early warnings.

Priority Areas Addressed:
Integrated

- Strengthen the cooperation between TRCG, WGM, WGH, and WGDRR to develop impact- based forecasts, decision-support and risk-based warning.

DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	Please ✓the related pillar(s)

Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	
Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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2. Annual Tropical Cyclone Exercises

Main text:
Annual tropical cyclone exercises were conducted by FEMA and the State of Hawaii with participation by US NWS Office at Honolulu and other federal partners in Hawaii in order to maintain a level of skill and situational awareness when dealing with tropical cyclones. In addition, RSMC Honolulu collaborated with U.S. Coast Guard and other federal and local partners to provide training ahead of the season as well as event support during the passage of Hurricane Kiko.

The US NWS Office on Guam participated in multiple tropical cyclone table top exercises with the Joint Region Marianas military command on Guam (CNMI typhoon scenario), the US Marine Corps Base Camp Blaz (Guam scenario) and with the national and state leaders in the FSM in Weno, Chuuk (Chuuk State and Yap State scenarios). Exercises focused on mutual aid, response/recovery, enhanced communications, early warnings and coordination, and impacts/damage reporting.

Figure 9: Participants in the 2025 Annual Joint FSM - Tropical Cyclone Workshop in Weno, Chuuk, August 2025

Identified opportunities/challenges, if any, for further development or collaboration:

Staff turnover at partner agencies continued at high levels and many key decision makers are new and lack experience. Training and exercise are crucial to maintaining readiness for future events.

Priority Areas Addressed:
DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community- based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

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Disaster risk knowledge and management	✓
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Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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3. StormReady® and TsunamiReady®

Main text:
StormReady® is a program designed by the National Weather Service to help communities and counties implement procedures and supplemental programs to reduce the potential for disastrous, weather-related consequences. StormReady® helps communities evaluate their current levels of preparedness for and response to extreme weather-related events. These communities demonstrate a strong commitment to saving lives and protecting property when hazardous weather strikes. By participating in StormReady®, local agencies can earn recognition for their jurisdiction by meeting guidelines established by the NWS in partnership with federal, state and local emergency management professionals. TsunamiReady® is a similar program that expands preparedness and response of coastal communities to tsunami threats. After the initial recognition, communities can reapply every 4 years.

Figure 10: StormReady and TsunamiReady signs at the Andersen Air Force Base (left image) and Guam International Airport on Guam (right image)

Identified opportunities/challenges, if any, for further development or collaboration:
As of 1 November 2025, there were 3,474 StormReady® and/or TsunamiReady® communities in the United States. All of the locations in the Pacific Region, including WFO Guam and RSMC Honolulu AOR are both StormReady® and TsunamiReady®.

Priority Areas Addressed:
DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	Please ✓the related pillar(s)
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	
Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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4. Community Outreach and Education

Main text: Numerous outreach and education activities conducted in 2025 include: *Expanded Pacific Hydrology Discussions.* Both WFO Guam and RSMC Honolulu provide input into the Climate Prediction Center's Monthly *ENSO Diagnostics Discussion* and employs the use of more comprehensive and targeted products--the *Hydrologic Outlook* product for extreme rainfall events and the *Drought Information Statement* for drought events.

RSMC Press Conference/Releases. RSMC Honolulu hosted one press conference in 2025: Announce the 2025 Central Pacific Hurricane Season Outlook on 15 May; a press release was issued on 29 October to provide a hydrological prediction for the coming Hawaii wet season.

RSMC Honolulu media interfaces. RSMC Honolulu conducted hundreds of media interviews in preparation for hurricane season as well as event-specific interviews and briefings during Hurricane Kiko.

University Course Enhancement. RSMC Honolulu hosted twice weekly weather discussions involving students and professors of the University of Hawaii (UH) Department of Meteorology, which engages the students in operational weather application focusing on societal impacts. These discussions were hybrid with on-site and virtual participation by employees, students and faculty.

WFO Guam media interfaces. WFO Guam conducted dozens of media interviews in advance of and during Jebi, Man-yi, Krosa and Podul. Numerous interviews occur throughout the year when tropical disturbances pass through the region or rumors begin to spread of weather threats.

WFO Guam TC Preparedness: WFO Guam conducted tropical cyclone awareness and preparedness courses across Guam and the CNMI for key partners and community stakeholders, focused on weather terminology, tropical cyclone forecasts, warning process, communications and preparedness.

WFO Guam Pohnpei Communications Workshop: WFO Guam coordinated with the FSM's Department of Environment, Climate Change and Emergency Management (DECEM) to hold its first Weather Communications Workshop in Pohnpei. This workshop sought to bring key national, state and local partners from the private and public sectors, and the media, to discuss weather communications, warnings, and preparedness, focused on relaying credible and official information, bridging gaps in the communications process to reach people across the main islands of the FSM and the outermost islands and atolls. Attendees were encouraged to strengthen, or build new, relationships across agencies and sectors for efficient and timely communications before, during and after a significant weather event.

Figure 11: Participants in the 2025 Pohnpei State Weather Communications Workshop in Kolonia, Pohnpei, FSM, August 2025

WFO Guam School Visits and Tours. WFO Guam welcomes many school groups and community agencies to the facility for tours and discussions focused on weather, climate and preparedness. Winter and spring 2025 were the busiest periods in years, as WFO Guam hosted more than 40 visits or outreach events, reaching thousands on Guam.

Figure 12: University of Guam students visiting the WFO Guam, learning about tropical weather, climate, forecasting, weather observations, and data collection. Visits include a tour of the Operations center and the morning launch of the weather balloon.

Identified opportunities/challenges, if any, for further development or collaboration:
Outreach and education events are fundamental in training specialists and emergency responders as well as the general population in disaster preparedness that eventually leads to a more resilient population.

Priority Areas Addressed:
DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	**Please ✓the related pillar(s)**
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	

Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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5. Pacific International Training Desk

Main text:
The Pacific International Training Desk (PITD) was established on the campus of the University of Hawaii at Manoa in 2001 by the US NOAA/NWS at the WFO Honolulu. The Pacific Desk is one of NOAA's contributions to the WMO Voluntary Cooperation Program (VCP). The Pacific Desk began by offering two-month training internships to visiting students from the Regional Association V (RA-V) of the WMO in March 2001 and later expanded the training opportunity briefly to developing countries from WMO RA II nations in east and Southeast Asia, who were also members of the ESCAP/WMO Typhoon Committee. Up until 2016, all the PITD training were conducted at the RSMC Honolulu. After that, the PITD training was extended to include the Weather Service Offices in Micronesia. Unfortunately, the in-person training was briefly paused in 2020 due to the global pandemic, then resumed virtually through webinar format in 2021. The in-person training returned following the end of the global pandemic. In 2025, training for one cohort was conducted. Participation was from Cook Islands, Fiji and Papua New Guinea.

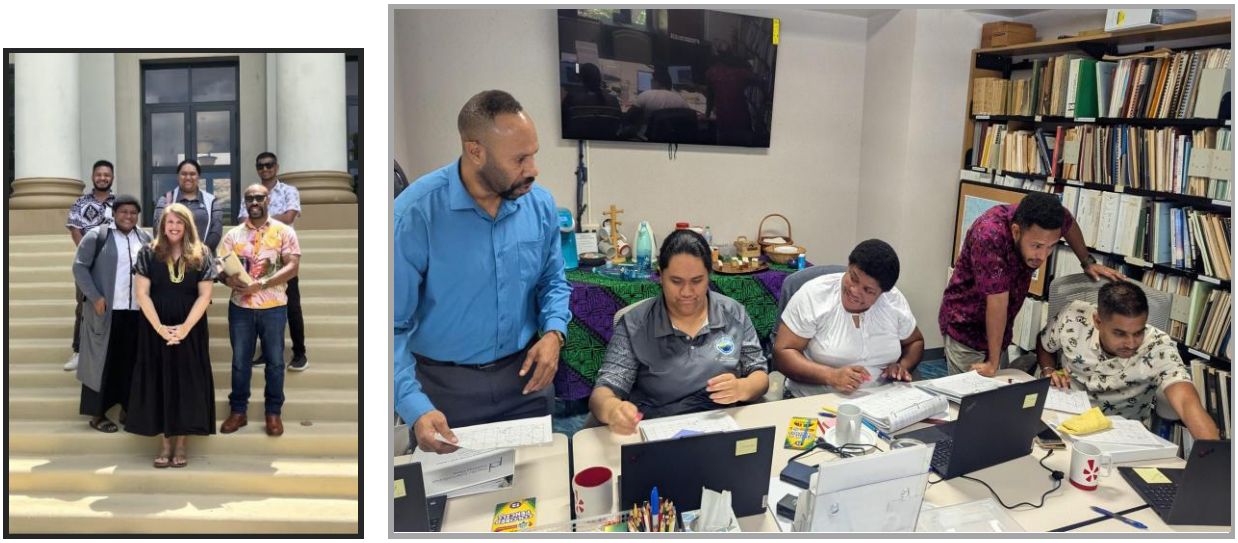

Figure 13: PITC Training Cohorts from Cook Islands, Fiji, and Papua New Guinea

Identified opportunities/challenges, if any, for further development or collaboration:
The open webinars allow students from Pacific Island Nations Meteorological Services to continue their development in the field of Meteorology, Hydrology and Disaster Preparedness. It also offers an insight into other Pacific Island nations' Meteorological services and their operations. In person training is essential for these courses to be fully successful.

Priority Areas Addressed:
Integrated:

- Enhance collaborative activities with other regional/international frameworks/organizations, including technical cooperation between TC/AP-TCRC and TC/PTC cooperation mechanism.

Meteorology:

- Enhance the capacity to monitor and forecast typhoon activities particularly in genesis, intensity and structure change.

DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community- based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	Please ✓the related pillar(s)
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	✓
Warning dissemination and communication	
Preparedness and response capabilities	✓

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6. Resource Mobilization During Extreme Events

Main text:
RSMC Honolulu conducted many Emergency Management Briefings during the 2025 hurricane season through video teleconferencing. These briefings included personnel at Emergency Operations Centers from the State level to the local level with the State Governor and County Mayors participating at times.

WFO Guam provided numerous virtual, and several onsite, decision support services by way of Heavy Weather Briefs to the Guam Homeland Security/Office of Civil Defense, CNMI Homeland Security Emergency Management and to the governors of both Guam and the CNMI prior to and during the passage of several tropical depressions and tropical storms in late 2024 and in 2025. WFO Guam Warning Coordination Meteorologist consults with both agency's Joint Information Centers to provide explanation and clarity in government press releases. These particular heavy weather briefings are primarily catered for the island leadership and military decision makers on potential tropical cyclone threats. WFO Guam provides similar support to state and national leaders in the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau, including to the U.S. Embassies in the U.S. Affiliated Islands in the Pacific.

Identified opportunities/challenges, if any, for further development or collaboration:
Impact-based decision support services are made available to local decision makers especially in locations that lack meteorological support and knowledge. Social media platforms have made these interagency interactions possible and allowed the sharing of information. US NWS continues to look for ways to optimize our use of these tools.

Priority Areas Addressed:
DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	**Please ✓the related pillar(s)**
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	

Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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7. Improved Typhoon-Related Disaster Risk Management in Various Sectors

Main text:
Tropical Weather Outlook graphic. During the tropical cyclone season, RSMC Honolulu prepares and transmits both a text and a graphical *Tropical Weather Outlook* that illustrates the probability of tropical cyclone development in the next 48 hours and 7 days respectively.

Time of Arrival/Departure graphics. When there is an active tropical cyclone in the AOR, RSMC Honolulu and WFO Guam issues graphical products for both "Most Likely Time of Arrival" and "Earliest Reasonable Time of Arrival" to assist government officials and public in their critical decision-making process as they prepare for potential weather impacts. A time of departure graphic is also being developed for experimental use in future seasons.

Software improvements for Emergency Managers. Hurrevac or HVX (an online application for emergency managers to gather critical hurricane forecast information) continues to evolve and introduce improvements to the software annually, and includes additional information from storm surge modeling in Hawaii.

Identified opportunities/challenges, if any, for further development or collaboration:

Priority Areas Addressed:
DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	**Please ✓the related pillar(s)**
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	
Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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8. Leveraging Additional Communications and Collaboration for EW4ALL

Main text:

Weekly Regional Weather Outlook. As a means to provide routine weather information direct to government and core partners, WFO Guam continues to produce Weekly Regional Weather Outlooks. Produced weekly on Tuesdays, the outlook is sent directly to users by email. Initially delivered to regional Homeland Security, FEMA and Micronesia Weather Service Office personnel, the distribution list has grown to 600+ users across the western North Pacific. This weekly outlook aims to provide early weather communications on significant weather features, concerns to islands across the region, and early warnings on emerging weather and water threats. The Regional Weather Outlook is produced daily during significant weather events.

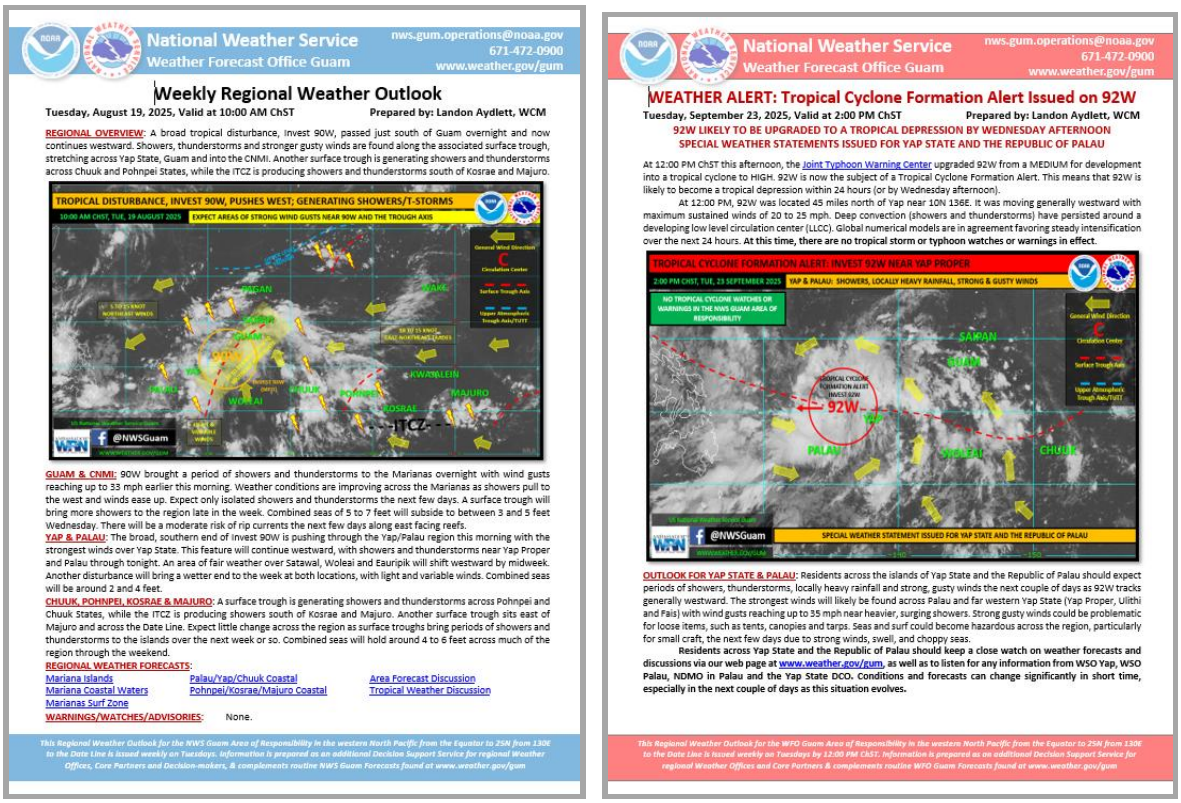

Figure 14: Example of the Weekly Regional Weather Outlook (left) and supplemental/daily Weather alert (right)

The routine outlook expanded to include the Climate Prediction Center's 2- and 3-Week Global Tropics Hazards Outlook and the U.S. Drought Monitor's weekly analysis to provide long-range guidance to facilitate anticipatory actions related to hydrologic concerns, such as rainfall variability and drought.

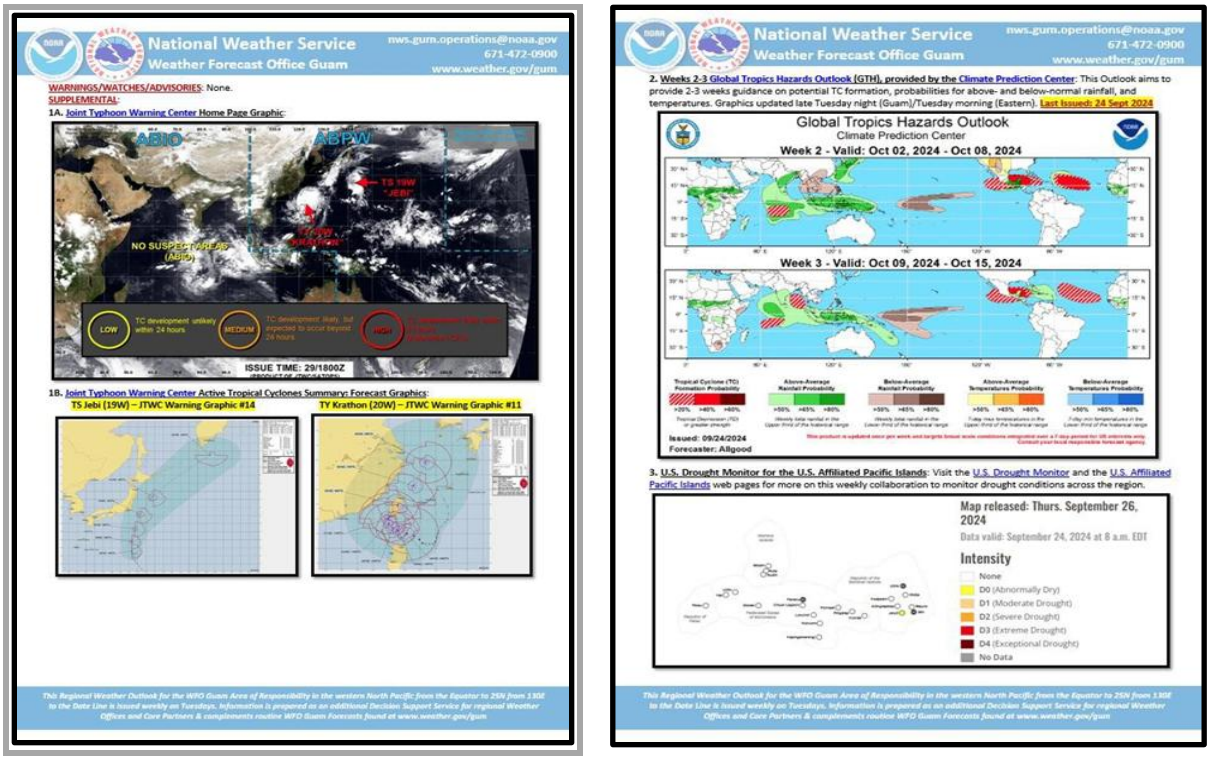

Figure 15: Examples of pages 2 and 3 of the Regional Weather Outlook with active tropical cyclone warnings from the JTWC (left) and charts from the Climate Prediction Center and U.S. Drought Monitor (right)

Facebook Live Broadcasts. WFO Guam continues to utilize Facebook Live broadcasts ahead of significant weather threats to reach a large audience and to engage in questions and answers with viewers through live discussions. Regional emergency management partners actively participate by providing official answers and comments to viewer questions and comments regarding civilian preparedness posturing and actions.

Broadcast/News Media Engagement. Unlike most cities and states in the United States of America, Guam and the Micronesia region have no broadcast meteorologists who routinely communicate weather forecasts and threats to the public through means of mass communication. So, when a partnership with the local television station on Guam to provide weekly weather outlooks came to an end in January 2024, WFO Guam continued to engage with the media on several other venues. WFO Guam established new partnerships with WAVE 105 FM for daily weather forecasts, The Point 93.3 FM for weekly weather discussions, and Good Morning Marianas (CNMI) for a weekly weather discussion and outlook. The Pacific Daily News (print media on Guam) continues to run bi-weekly newspaper columns, Weather Wednesday, to promote general weather preparedness and awareness.

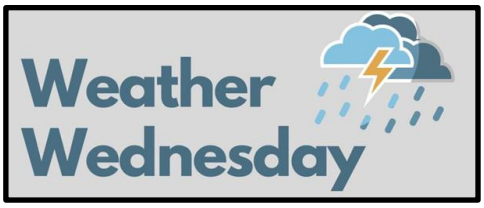

Figure 16: Logo for local newspaper weather article

WFO Guam Partnership with Guam Power Authority. The Guam Power Authority (GPA) partnered with WFO Guam to publish weather and tropical cyclone information from June (Typhoon Preparedness Month) through September (National Preparedness Month). GPA produced bulletins that carried weather terminology, preparedness/awareness information, and information on building a preparedness/emergency kit. Bulletins were distributed to all households and businesses on Guam (everyone on the power grid). GPA also produced Public Service Announcements that played on social media, on radio, in theaters, and on 8 digital billboards across Guam through September and October.

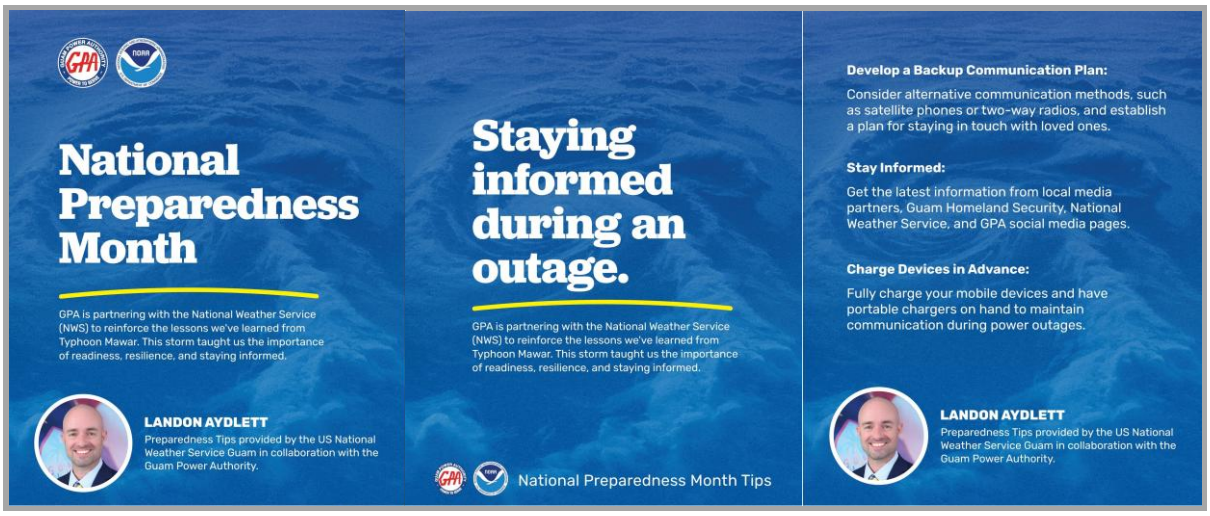

Figure 17: Graphics created by GPA for use on social media. GPA shared weekly graphics on preparedness, building emergency kits, staying informed, saving power, etc.

Figure 18: Screen grabs taken from the Public Service Announcement for typhoon preparedness and building an emergency kit.

Identified opportunities/challenges, if any, for further development or collaboration:

Priority Areas Addressed:

DRR:

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share experience and knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	**Please ✓the related pillar(s)**
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	✓
Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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9. Working Group on Hydrology (WGH) Annual Operating Plan 1 (AOP1) Workshop: Knowledge Sharing on Pacific Ocean Storm Surge Inundation Modeling (POSSIM)

Main text:
Software improvements. POSSIM 3.0, in its fourth iteration and definitive state, is designed for ease of use and intricate computing capabilities, such that the program can run natively on Windows PCs with standard computational power, while utilizing the most state-of-the-art algorithms to integrate the most up-to-date science on storm surge and TC dynamics, and implement it in a package that is easily modifiable and distributable to TC members with varying degrees of hardware, software and operational capabilities. POSSIM 3.0 follows a modular architecture pattern that separates concerns into distinct functional components while maintaining efficient data flow between modules. The system architecture emphasizes memory efficiency, computational performance, and robustness in handling large geospatial datasets typical of high-resolution coastal modeling applications. One of the most critical ideas of POSSIM to allow the best in-class storm surge and inundation mapping, with minimal resources (time and processing) needed for efficient back-of-the-envelope calculations on the fly.
This methodology affords an expedient visualization of expected storm surge inundation impacts to augment decision support services for government entities. The scheme leverages several Free and Open Source (FOSS) software packages to bring a light-weight and accessible solution for users that may have limited resources.

WGH AOP1 Workshop. A follow-up workshop with the newest iteration of POSSIM was held in Sinajana, Guam 15 to 19 September 2025. The workshop included members from China, Thailand, and the Philippines, which included operational hydrometeorologists and researchers, as well as academic researchers directly involved in flood forecasting and mitigation sectors.

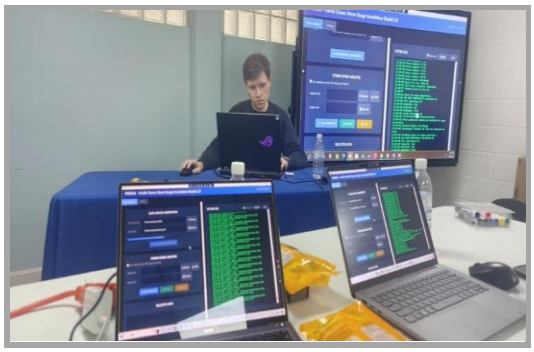
Identified opportunities/challenges, if any, for further development or collaboration:
This workshop has shown that the new POSSIM software is much more forgiving with different sources of data (Digital Elevation Model, DEM), much more user-friendly for both developers and users alike, and easier than ever to set up and begin using. Familiarity with programming languages and experience in localizing said code varies between members, so utilizing GitHub and various chat groups for further collaboration and assistance in localizing POSSIM in their respective areas of concern.

Priority Areas Addressed:

<u>WGH:</u>

- Enhance Members' disaster risk reduction techniques and management strategies.
- Share knowledge and understanding of tropical cyclone related flooding hazards, and relating it to proper communication of hydrologic hazards associated with significant TCs.
- Increase and prioritize collaboration between TC members for further understanding and strategy-building for coping with tropical cyclone related coastal flood hazards.

Figure 19: Participants at the WGH AOP1 Workshop on Guam



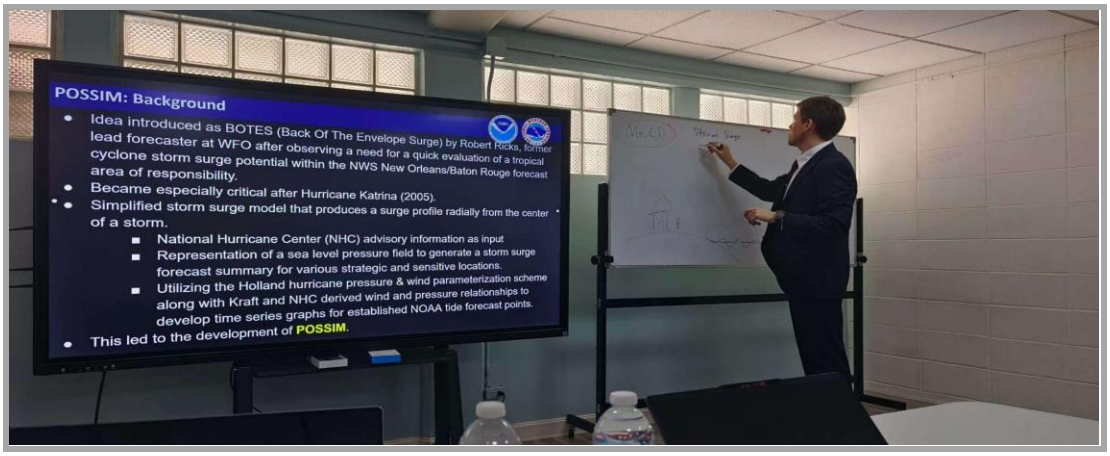


Figure 20: AOP1 Workshop participants training at workshop facility

Figure 21: AOP1 Workshop participants during the site visit to the WFO Guam

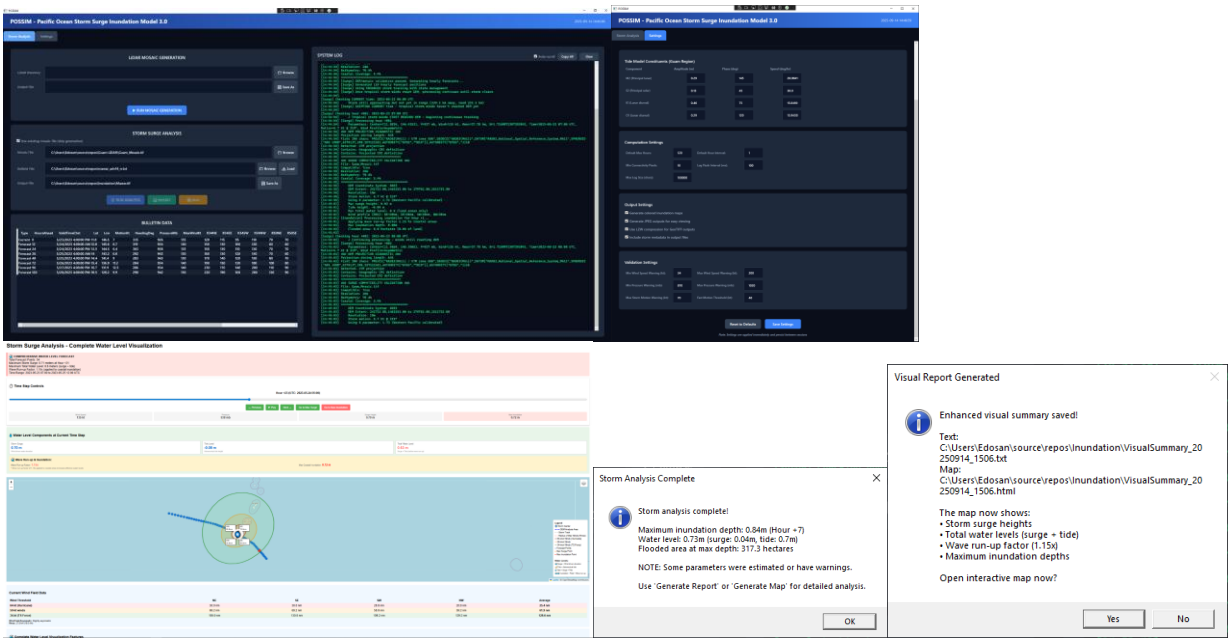


Figure 22: POSSIM v3.0 in action on Windows 10

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	Please ✓the related pillar(s)
Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	✓
Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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10. Hosting the ESCAP/WMO Typhoon Committee 14th Working Group on Hydrology (WGH) Annual Meeting in Guam, USA 2025

Main text:
Hosting. The 14th Working Group in Hydrology on "Strategic Action for a Resilient Tomorrow: Strengthening Inter-Agency Coordination and Data-Driven, Multi-Hazard Early Warning Systems to Address Typhoon Impacts" was held at the Pacific Islands Club Guam, Tumon, Guam, from 23 to 24 September 2025. This event was hosted jointly by the USA National Weather Service, WFO Guam, and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan. Facilitated by WFO Guam staff in conjunction with Typhoon Committee Secretariat and WGH Chairs.

The meeting was designed to maximize inclusivity by enabling hybrid participation (in-person and remote) and engaging as many TC members as possible. Members reviewed 2025 progress across hydrological components, highlighting key achievements, ongoing projects, and gaps requiring follow-up. Common themes included successful data collection and sharing, advances in modeling and forecasting, and the need for resource support in certain areas. An emphasis was placed on producing a year-end consolidated report and assigning task owners with mid-year check-ins as needed.

The group also assessed the 2025 WGH Annual Operating Plans (AOPs), confirming milestones met, identifying any delays, and evaluating resource use. Action items included updating the AOP tracker with revised timelines and risk mitigations to align future work with program goals and member capabilities.

Preparations for upcoming events were discussed: the Integrated Workshop/High-level Forum in Macau (December 2025) and the TC Annual Session in Jeju, ROK (March 2026). Hydrological contributions and logistical plans were outlined, including lead authors, session formats, data and case study materials, and remote participation options to maintain inclusivity. Preliminary planning for the Jeju session focused on tentative agendas, coordinators, and submission timelines. The meeting concluded with next-step actions to finalize plans, secure venue and logistics, and align progress with the Macau planning timeline.

Identified opportunities/challenges, if any, for further development or collaboration:
Continue to sustain the critical collaboration between TC members to satisfy key pillars of the UN's Early Warnings for All (EW4All) Initiative.

Priority Areas Addressed:
<u>WGH:</u>

- Strengthen capacity in effective flood forecasting and impact-based early warning, including hazard mapping and anticipated risk based on methodological and hydrological modelling, and operation system development.
- Develop capacity in projecting the impacts of climate change, urbanization and other human activities on typhoon-related flood disaster vulnerability and water resource availability.

- Increase capacity in utilization of advanced science and technology for typhoon-related flood forecasting, early warning, and management.

Figure 23: WGH 14th Annual Meeting on Guam

Figure 24: Chair and Vice Chair of WGH 14th annual meeting (left). Participants visit the WFO Guam (right)

Key Pillars of UN's Early Warnings for All (EW4All) Initiative Addressed:

Key Pillars of EW4All	**Please ✓the related pillar(s)**

Disaster risk knowledge and management	✓
Detection, observation, monitoring, analysis, and forecasting	✓
Warning dissemination and communication	✓
Preparedness and response capabilities	✓

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Appendix I - Priority Areas of Working Groups for the Strategic Plan 2022-2026

WG	Priorities
Integrated	1. Strengthen the cooperation between TRCG, WGM, WGH, and WGDRR to develop impact-based forecasts, decision-support and risk-based warning.
	2. Strengthen cross-cutting activities among working groups in the Committee.
	3. Enhance collaborative activities with other regional/international frameworks/organizations, including technical cooperation between TC/AP-TCRC and TC/PTC cooperation mechanism.
Meteorology	4. Enhance the capacity to monitor and forecast typhoon activities particularly in genesis, intensity and structure change.
	5. Develop and enhance typhoon analysis and forecast techniques from nowcast to medium-range, and seasonal to long-range prediction.
	6. Enhance and provide typhoon forecast guidance based on NWP including ensembles, weather radar and satellite related products, such as QPE/QPF.
	7. Promote communication among typhoon operational forecast and research communities in Typhoon Committee region.
	8. Enhance training activities with TRCG, WGH, and WGDRR in accordance with Typhoon Committee forecast competency, knowledge sharing, and exchange of latest development and new techniques.
	9. Enhance RSMC capacity to provide regional guidance including storm surge, in response to Member's needs.
Hydrology	10. Improve typhoon-related flood (including riverine flood, flash flood, urban flood, and coastal flood) monitoring, data collection and archiving, quality control, transmission, processing, and sharing framework.
	11. Enhance capacity in typhoon-related flood risk management (including land-use management, dam operation, etc.) and integrated water resources management and flood-water utilization.
	12. Strengthen capacity in effective flood forecasting and impact-based early warning, including hazard mapping and anticipated risk based on methodological and hydrological modelling, and operation system development.
	13. Develop capacity in projecting the impacts of climate change, urbanization and other human activities on typhoon-related flood disaster vulnerability and water resource availability.
	14. Increase capacity in utilization of advanced science and technology for typhoon-related flood forecasting, early warning, and management.
DRR	15. Provide reliable statistics of mortality and direct disaster economic loss caused by typhoon-related disasters for monitoring the targets of the Typhoon Committee.
	16. Enhance Members' disaster risk reduction techniques and management strategies.
	17. Evaluate socio-economic benefits of disaster risk reduction for typhoon-related disasters.
	18. Promote international cooperation of DRR implementation project.
	19. Share experience/knowhow of DRR activities including legal and policy framework, community-based DRR activities, methodology to collect disaster-related information.

Appendix II: Acronyms

AOP	Annual Operating Plan
AOR	Area of Responsibility
BMKG	Badan Meteorologi, Klimatologi, dan Geofisika
CPHC	Central Pacific Hurricane Center
CNMI	Commonwealth of the Northern Mariana Islands
DECEM	Department of Environment, Climate Change and Emergency Management
DRR	Disaster Risk Reduction
FSM	Federated States of Micronesia
FEMA	Federal Emergency Management Agency
FOSS	Free and Open Source
GPA	Guam Power Authority
HFO	Honolulu Forecast Office
ITCZ	Inter Tropical Convergence Zone
JMA	Japan Meteorological Agency
JTWC	Joint Typhoon Warning Center
LLCC	Low Level Convective Center
MWO	Met Watch Office
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
OLR	Outgoing Longwave Radiation
PITD	Pacific International Training Desk
POSSIM	Pacific Ocean Storm Surge Inundation Modeling
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
RSMC	Regional Specialized Meteorological Center
RMI	Republic of the Marshall Islands
SIGMET	Significant Meteorological Information
TCFA	Tropical Cyclone Formation Alert
TRCG	Training and Research Coordination Group
TC	Typhoon Committee
TCS	Typhoon Committee Secretariat
VCP	Voluntary Cooperation Program
WFO	Weather Forecast Office
WRN	Weather Ready Nation
WSP	Wind speed probability
WGDRR	Working Group in Disaster Risk Reduction
WGH	Working Group in Hydrology
WGM	Working Group in Meteorology
WMO	World Meteorological Organization
USA	United States of America