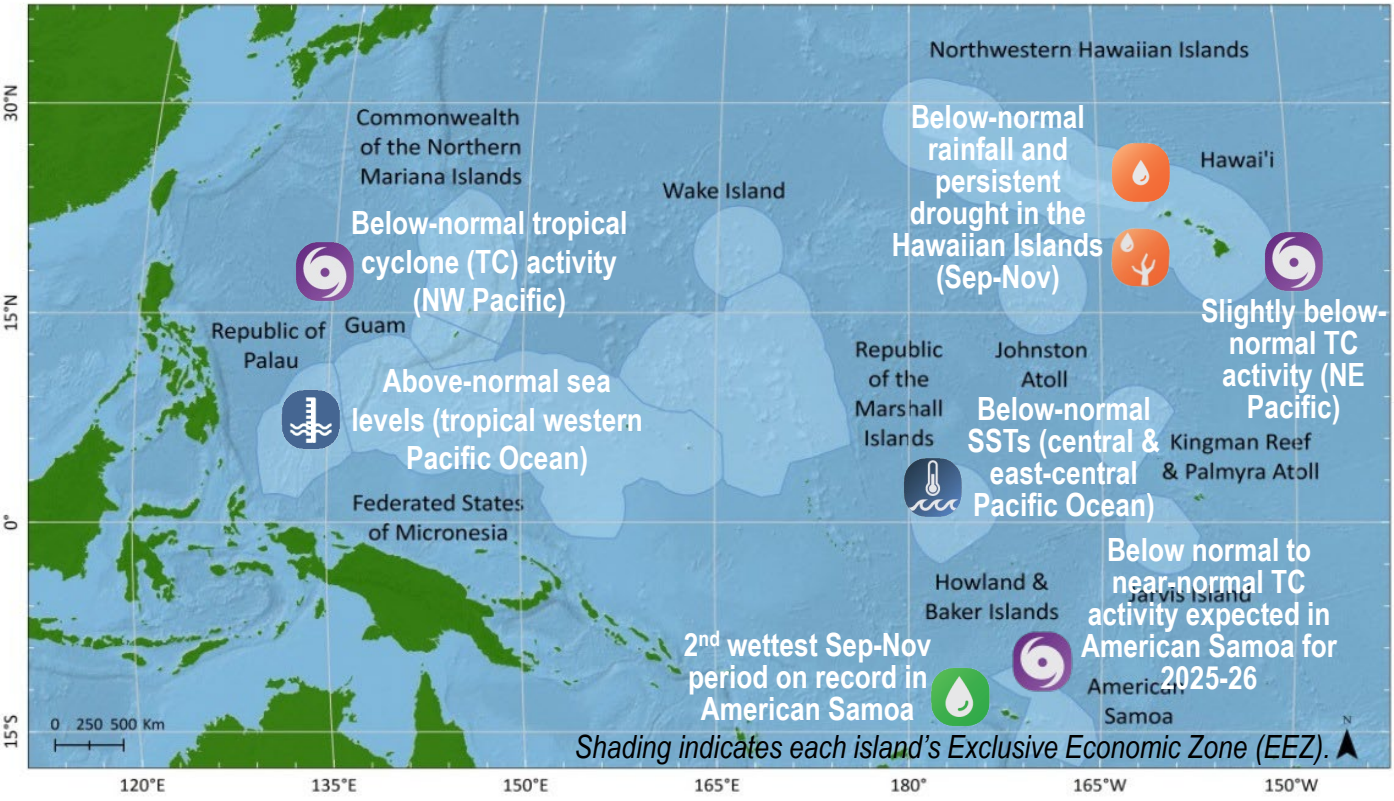
Significant Events – *For September–November 2025*



Highlights for Hawaii and the U.S. Affiliated Pacific Islands

- During the September-November period (SON), La Niña conditions (Oceanic Niño Index [ONI] = -0.6ºC for SON) were present, with below-normal sea surface temperatures (SSTs) across the central and eastern equatorial Pacific Ocean. Currently, a La Niña Advisory is in effect and a transition to El Niño–Southern Oscillation (ENSO)-neutral (68% chance during the Jan-Mar 2026 period) is favored, according to the latest (12/11/25) ENSO Diagnostic Discussion update by NOAA Climate Prediction Center (CPC).
- For the SON period, above-normal precipitation was observed across areas of the U.S. Affiliated Pacific Islands (USAPI) including Palau, areas of the Federated States of Micronesia (FSM), and the Republic of the Marshall Islands (RMI). In American Samoa, anomalously wet conditions continued with Pago Pago observing its 2nd wettest SON on record and wettest year-to-date accumulations. In the Commonwealth of the Northern Mariana Islands (CNMI), southern FSM (Kapingamarangi), and western RMI (Kwajalein), drier-than-normal conditions prevailed during SON. In the Hawaiian Islands, dry conditions persisted across much of the island chain with moderate to extreme drought conditions observed.
- According to data from the University of Hawaii Sea Level Center, record daily high sea levels were observed during the SON period in the western and central tropical Pacific Ocean including at tide gauges around Palau, Guam, FSM (Chuuk, Kapingamarangi, Yap), RMI (Majuro), American Samoa (Pago Pago), and areas of the Hawaiian Islands (Kauai, Oahu, Lanai, Molokai).

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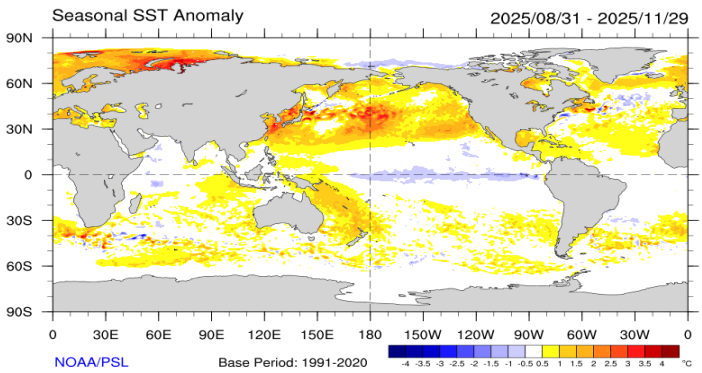
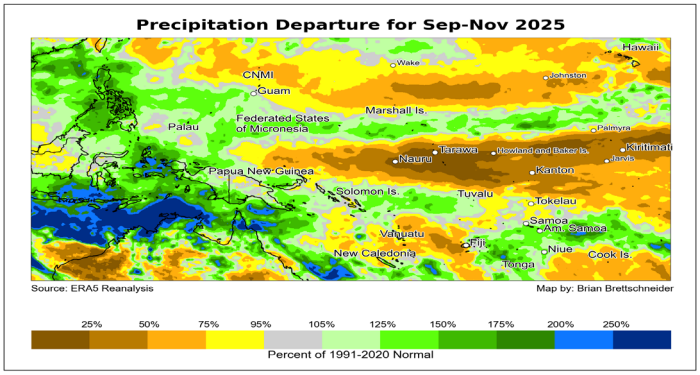
Climate Overview – *For September–November 2025*





Seasonal sea surface temperature anomaly map for 8/31/25 to 11/29/25 (left) and 3-month seasonal precipitation departures from normal for the September–November 2025 period for the central and western tropical Pacific Ocean with warmer colors representing drier-than-normal conditions and cooler colors wetter-than-normal conditions (right).
Source: NOAA Physical Sciences Laboratory (left); ERA5 Reanalysis, B. Brettschneider, National Weather Service (right).

By the end of the SON period, SSTs were below normal across the central and east-central tropical Pacific Ocean, while in the tropical western Pacific Ocean SSTs were near to slightly below normal. According to the latest NOAA CPC ENSO: Recent Evolution, Current Status and Predictions update (12/8/25), Niño region SST departures were as follows: Niño 3.4 at -0.5ºC, Niño 3 at -0.4ºC, Niño 1+2 at -0.2ºC, and Niño 4 at -0.3ºC.

By the end of the SON period, below-normal sea levels (~-5 to -15+ cm anomalies) were observed in proximity to the equator (from ~10ºN to ~10ºS) across most of the central and east-central Pacific Ocean. Conversely, above-normal sea levels were observed in areas around the Hawaiian Islands (~+5 to +15 cm anomalies), as well as across areas of the tropical western Pacific (from ~160ºE westward), including around Palau, the Mariana Islands, and western FSM (~+5 to +20 cm anomalies), according to satellite data from the University of Hawaii Sea Level Center. Overall, the pattern of elevated sea levels in the western Pacific, and strongly depressed sea levels across the central equatorial Pacific is consistent with La Niña conditions.

During the SON period, the USAPI region observed drought-free conditions, except for moderate-to-severe drought in Kapingamarangi (FSM), according to the U.S. Drought Monitor. For SON precipitation totals, Airai (Palau) recorded 42.07 in. (117% of normal). In FSM, Yap observed 41.98 in. (117% of normal), Kapingamarangi 19.45 in. (61% of normal), Pohnpei 47.52 in. (108% of normal), Lukunor 27.95 in. (84% of normal), Kosrae 62.01 in. (137% of normal; 2nd wettest), and Chuuk 46.71 in. (130% of normal; 8th wettest). In the Mariana Islands, Saipan observed 19.2 in. (69% of normal; 6th driest—primarily due to a very dry November), and Guam 34.27 in. (102% of normal). In the RMI, Majuro observed 45.79 in. (119% of normal), while Kwajalein logged 22.22 in. (70% of normal; 2nd driest). In Pago Pago, American Samoa, precipitation for SON was well above normal (49.55 in., 170% of normal; 2nd wettest). Moreover, Pago Pago observed its wettest Oct-Nov period (38.19 in), and its 3rd wettest October period (20.36 in.) on record. In the Hawaiian Islands, dry conditions prevailed across most areas with drought conditions persisting during SON. For the SON period, Lihue observed 9.1 in. (96% of normal), Honolulu 1.26 in. (27% of normal), Molokai 2.88 in. (55% of normal), Kahului 1.24 in. (40% of normal), Kailua-Kona 1.53 in. (68% of normal), and Hilo 19.7 in. (59% of normal).

In the Northwest Pacific region (west of 180ºE), tropical cyclone (TC) activity was below normal, with 27 named storms and a regional Accumulated Cyclone Energy (ACE) Index of 187 (normal 285.8) on 11/30/25, while the Northeast Pacific observed 20 named storms with an ACE Index of 126.6 (normal 132.6), according to the Colorado State University Tropical Meteorology Project.

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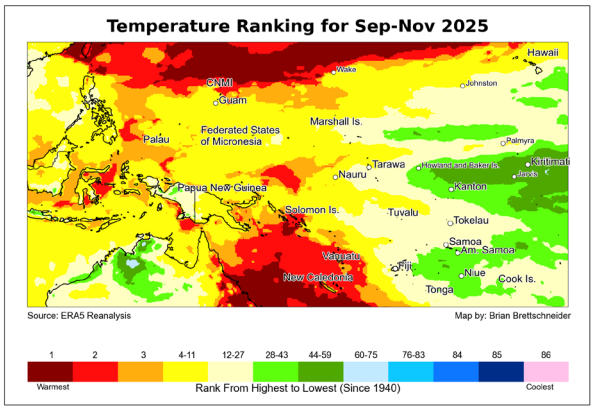
Sectoral Impacts – *For September–November 2025*

Summary of Recent 7-day Average Flow Conditions
(2025-11-27 – 2025-12-04)
["--", no data; ">", greater than all historical minimum values]

USGS station number	USGS station name	Drain. area [mi²]	2025-11-27 to 2025-12-04				Historical annual minimum 7-day flows		
			No. of days with zero flows	Lowest 7-day average flow			No. of years	Min. (year) [ft³/s]	No. of years with zero flows
				Date	Stream flow [ft³/s]	Rank			
16211600	Makaha Str nr Makaha, Oahu, HI	2.117	8	2025-11-27	0	Tie 1	66	0 (1961)	38
16212601	Waikele Str at Wheeler Field, Oahu, HI	6.72	8	2025-11-27	0	Tie 1	10	0 (2008)	9
16226400	N. Halawa Str nr Quar. Stn. at Halawa, Oahu, HI	4.60	4	2025-12-01	0	Tie 1	23	0 (2002)	23
16227500	Moanalua Stream nr Kaneohe, Oahu, HI	0.92	5	2025-11-30	0	Tie 1	21	0 (1989)	21
16414200	Kaunakakai Gulch at altitude 75 feet, Molokai, HI	7.31	8	2025-11-27	0	Tie 1	21	0 (2003)	21
16415600	Kawela Gulch near Moku, Molokai, HI	5.28	4	2025-12-01	0	Tie 1	16	0 (2004)	16
16759600	Waiaha Stream at Holualoa, HI	10.9	8	2025-11-27	0	Tie 1	9	0 (2003)	9
16770500	Paauau Gulch at Pahala, HI	1.66	8	2025-11-27	0	Tie 1	41	0 (1982)	41
16249000	Waimanalo Str at Waimanalo, Oahu, HI	2.13	0	2025-12-01	0.4	2	15	0.37 (1989)	0
16241600	Manoa Stream at Woodlawn Drive, Oahu, HI	4.28	0	2025-12-04	2	3	13	1.09 (2023)	0
16604500	Wailuku River at Kepaniwai Park, Maui, HI	6.13	0	2025-12-03	11	Tie 3	40	10.5 (2014)	0

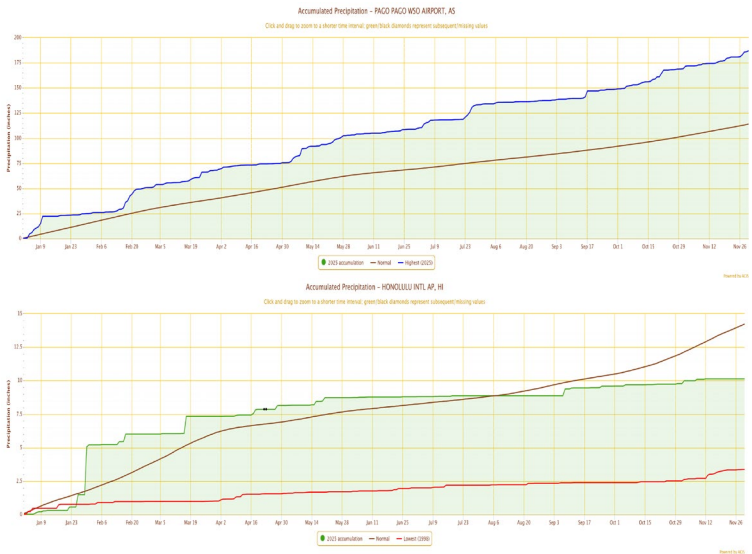
Summary of 7-day average streamflows and rankings (Rank 1 = lowest flow on record) across Hawaii compared to historical flows for the same period (11/27/25-12/4/25).
Source: U.S. Geological Survey.

Rapidly spreading brush fire observed near Paia in Maui County on 9/23/25, which led to evacuation orders and warnings due to smoke and fire proximity.
Source: Maui County, Hawaii.



2-meter surface air temperature rankings for the Sep-Nov 2025 period for the Pacific Ocean region.
Source: ERA5 Reanalysis, B. Brettschneider, NWS.

Facilities and Infrastructure – In American Samoa, heavy rainfall during the SON period led to incidents of flash flooding and landslides (between Asili and Amaluia) on Tutuila Island. In Hilo, a large north swell caused coastal flooding and closed beaches including at the Onekahakaha Beach Park in early November. In Majuro (RMI), heavy rainfall (4.24 in.) on 10/11/25 led to flooding of roadways and residential areas and temporary power outages, according to the NWS Majuro.



Year-to-date (2025) accumulated precipitation at Pago Pago, American Samoa (wettest on record), and Honolulu International Airport, Hawaii (below).
Source: SC Applied Climate Information System (ACIS).

Heat – In the tropical western Pacific, above-normal air temperatures were observed during the Oct-Nov 2025 period in areas of the region. The greatest anomalies were observed in CNMI with numerous daily high temperature records broken in Rota (20 daily records broken) and Saipan (14), according to data from SC ACIS.

Water Resources – In Majuro (RMI), reservoir storage reached 95% of total capacity (47,400,000 gallons) on 11/30/25. In the Hawaiian Islands, 14-day average streamflows (12/11/25) were well below normal at numerous USGS gauging stations across the island chain, including in Kauai, Oahu, Maui, and the Hawaii Island.

Wildfire – In the Hawaiian Islands, numerous brush fires were reported during SON, including in Kauai, Oahu, and Maui (left-center photo).

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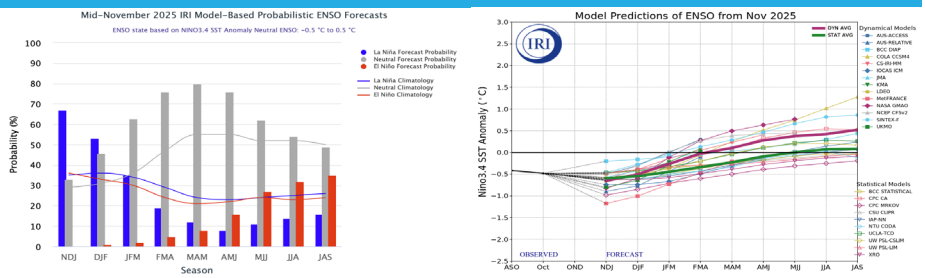
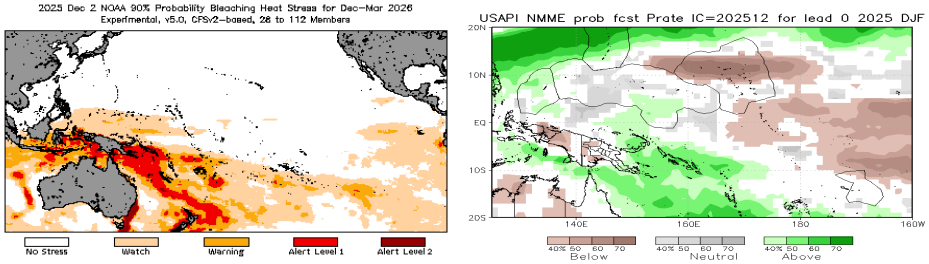
Seasonal Outlook – *For Dec 2025–Feb 2026*



Forecast for each of the three possible ENSO categories for the next 8 overlapping 3-month seasons. Blue bars show the chances of La Niña, gray bars the chances for neutral, and red bars the chances for El Niño (left); and ENSO forecast model predictions (right).
Source: NOAA CPC (left); Columbia IRI (right).

According to the latest NOAA CPC ENSO Diagnostic Discussion (12/11/25), a La Niña Advisory remains in effect and is favored to continue for the next month or two, with a transition to ENSO-neutral expected in Jan-Mar 2026 (68% chance). In terms of seasonal sea level anomalies, the NOAA National Centers for Environmental Prediction CFSv2 model suggests a forecast pattern characteristic of La Niña oceanic conditions, with continued below-normal sea levels across much of the equatorial central and eastern Pacific and elevated sea levels across much of the western tropical Pacific. In the Hawaiian Islands, sea levels are expected to range from near-normal to above normal, according to model forecast data from the University of Hawaii Sea Level Center.

The NOAA Coral Reef Watch four-month coral bleaching heat stress outlook (Dec 2025-Mar 2026; below left) calls for a high probability (90%) of high heat stress (Alert Level 1-2) developing in the tropical western Pacific Ocean for areas of USAPI including southwestern FSM, southern and northwestern FSM, and other locations including areas near New Guinea, Solomon Islands, and Tonga.



NOAA Coral Reef Watch 90% probability coral reef heat stress outlook for Dec 2025-Mar 2026 (left); and NOAA North American Multi-Model Ensemble (NMME) USAPI seasonal precipitation forecast for Dec 2025-Feb 2026 (right).
Source: NOAA NESDIS (left); NOAA CPC (right).

For the Dec 2025-Feb 2026 precipitation forecast, above-normal rainfall amounts are favored for southern portions of FSM, Guam, CNMI, and Hawaiian Islands. Elsewhere, near-normal conditions are expected in Palau, much of FSM, southern RMI, and American Samoa, while below-normal precipitation is expected for northern RMI, according to the NOAA NMME forecast. In the south Pacific, the 2025-26 TC outlook calls for below to near-normal TC activity (0-2 TCs) for American Samoa.

Regional Partners

NOAA Coral Reef Watch:
https://coralreefwatch.noaa.gov/

NOAA National Centers for Environmental Information:
https://www.ncei.noaa.gov/

NOAA NMFS Pacific Island Fisheries Science Center:
https://www.fisheries.noaa.gov/about/pacific-islands-fisheries-science-center

NOAA NWS Weather Forecast Offices Honolulu, Guam, & Pago Pago:
https://www.weather.gov/hfo/
https://www.weather.gov/gum/
https://www.weather.gov/ppg/

NOAA OceanWatch - Central Pacific Node:
https://oceanwatch.pifsc.noaa.gov/index.html

NPS Pacific Island Inventory & Monitoring Network:
https://www.nps.gov/im/pacn/index.htm

University of Guam - Water and Environmental Research Institute:
https://weri.uog.edu/

University of Hawaii - Asia Pacific Data Research Center (APDRC):
https://apdrc.soest.hawaii.edu/

University of Hawaii – Cooperative Institute for Marine & Atmospheric Research:
https://www.soest.hawaii.edu/jimar/index.htm

University of Hawaii - Sea Level Center:
https://uhslc.soest.hawaii.edu/

USGS Science Center - Pacific Coastal and Marine Science Center:
https://www.usgs.gov/pacific-coastal-and-marine-science-center

USGS Pacific Islands Water Science Center:
https://www.usgs.gov/pacific-coastal-and-marine-science-center

Western Regional Climate Center:
https://wrcc.dri.edu/

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