NWS Climate Services

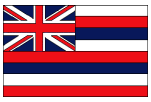
September PEAC Audio Conference Call Summary

12 September, 1430 HST (13 September 2024, 0030 GMT)

August rainfall totals reported

w b w b w b b w b w b w b w b b b w b

	Rainfall	% Norm	Normal	Departure	3 mon %
	b		b	b	
Airai					
Yap					
Chuuk					
Pohnpei					
Kosrae					
Kwajalein					
Majuro					
Guam NAS					
Saipan					
Pago Pago					
Lihue					
Honolulu					
Kahului					
Hilo					



Hawaii b w w

b w w b w w b

bw b w

Kauai

While the Big Island and Maui received abundant rainfall from Hurricane Hone, Kauaʻi had dry conditions during the month of August. All of the gages on the island posted below average monthly totals. The U.S. Geological Survey's (USGS) rain gage on Mount Waiʻaleʻale had the highest monthly total of 13.84 inches, but this amount was just 40 percent of the August average. Records for the lowest August rainfall total were broken at Hanapēpē and Wainiha. Mount Waiʻaleʻale, Hanalei, and Kapahi had their lowest August totals since 2005, and Līhuʻe Airport posted its lowest August total since 2007.

Rainfall totals for 2024 through the end of August were near to above average at most of the gages on Kauaʻi. The Mount Waiʻaleʻale rain gage had the highest year-to-date total of 231.36 inches (88 percent of average).

Oahu

August rainfall totals on Oʻahu were mostly near to above average. The main exceptions were along the lower leeward slopes of the island where several sites had below average monthly totals. Another cluster of below average totals came from the northern half of the Koʻolau Range. The Mānoa Lyon Arboretum gage had the highest monthly total of 12.74 inches (101 percent of average), and the highest daily total of 1.85 inches on August 29. There were no monthly rainfall records broken, or other notable totals.

Nearly all of the gages on Oʻahu had near to above average rainfall totals for 2024 through the end of August. The USGS' Poamoho Rain Gage No. 1 had the highest year-to-date rainfall total of 115.78 inches (79 percent of average).

Maui

Hurricane Hone and the remnant moisture from Tropical Cyclone Gilma pushed August rainfall totals above average at most of the gages across Maui County. The USGS' rain gage at West Wailuaiki Stream had the highest available rainfall total of 27.42 inches (161 percent of average). This gage also logged the highest 2-day total of 8.31 inches on August 24 and 25 associated with Hurricane Hone's passage south of the Big Island.

Maui County rainfall totals for 2024 through the end of August were near to above average at most of the gages. The West Wailuaiki rain gage had the highest available year-to-date total of 150.65 inches (95 percent of average). The USGS' gage on Puʻu Kukui likely had a higher total but the site stopped sending data after the passage of Hurricane Hone.

Big Island

Due to the passage of Hurricane Hone across the coastal waters south of South Point, nearly all of the rain gages across the Big Island posted above average monthly totals for the month of August. Among the automated gages, the USGS' rain gage at Kawainui Stream had the highest monthly total of 35.94 inches (402 percent of average). However, the highest overall total was a manually recorded 36.14 inches from the Volcano Village CoCoRaHS observer. A record for the highest August rainfall total was broken at Kahuā Ranch, and Honokaʻa had its highest August total since 1995. The low number of records broken is due to many sites having their highest August rainfall totals set in 2018 from the passage of Hurricane Lane.

Most of the rain gages on the Big Island had near to above average rainfall totals for 2024 through the end of August. Below average totals were mainly in the South Kohala and North Kona Districts, and the Pōhakuloa region of the Hāmākua District. The USGS' rain gage at Honoliʻi Stream had the highest year-to-date total of 156.98 inches (103 percent of average), and was followed closely by the Kawainui Stream rain gage with 156.57 inches (156 percent of average).

Current State of ENSO and predictions

Issued b b b

ENSO Alert System Status: La Niña Watch

Synopsis: **La Niña is favored to emerge in September-November (71% chance) and is expected to persist through January-March 2025.**

ENSO-neutral continued during August 2024, with near-average sea surface temperatures (SSTs) observed across most of the equatorial Pacific Ocean. The weekly Niño indices did not change substantially during the month, with the latest weekly index values varying between +0.2°C (Niño-4) and -0.4°C (Niño-1+2). Below-average subsurface temperatures were also similar to those in early August (area-averaged index). Negative temperature anomalies continued to dominate across most of the subsurface equatorial Pacific Ocean . Low-level wind anomalies were easterly over most of the equatorial Pacific, and upper-level wind anomalies were easterly over the east-central Pacific. Convection was slightly enhanced over parts of Indonesia and was near average near the Date Line. Both the Southern Oscillation index and the equatorial Southern Oscillation indices were positive. Collectively, the coupled ocean-atmosphere system reflected ENSO-neutral.

The IRI plume predicts a weak and a short duration La Niña, as indicated by the Niño-3.4 index values less than -0.5°C. This month, the team relies more on the latest North American Multi-Model Ensemble (NMME) guidance, which predicts La Niña to emerge in the next couple of months and continue through the Northern Hemisphere winter. The continuation of negative subsurface temperatures and enhanced low-level easterly wind anomalies supports the formation of a weak La Niña. A weaker La Niña implies that it would be less likely to result in conventional winter impacts, though predictable signals could still influence the forecast guidance (e.g., CPC's seasonal outlooks). In summary, La Niña is favored to emerge in September-November (71% chance) and is expected to persist through January-March 2025.

6. Rainfall Verification JJA– June, July, August b

b b w b **JJA** w w b w w w b b b b

June, July, August -JJA 2024 Verification

Updated 9/16/2024 JJA

Location	UKMO	ECMWF	CA	NASA	NCEP	IRI	APCC	Initial: Rainfall Outlook	Initial: Final Probs	3 mo Verification % norm	Total (in)	Tercile
Palau												
Airai 7° 22' N, 134° 32' E	Above	Below	Avg.	Avg-below	Above	Below	Below	Avg-above	30:35:35	99	45.17	Avg.
FSM												
Yap 9° 29' N, 138° 05' E	Above	Below	Below	Avg-below	Avg.	Below	Below	Below	40:30:30	97	39.12	Avg.
Chuuk 7° 28'N, 151° 51'E	Avg-below	Below	Avg-below	Avg.	Avg.	Below	Below	Avg-above	30:35:35	111	41.07	Avg.
Pohnpei 6° 59'N, 158° 12'E	Avg-below	Below	Avg.	Avg-below	Avg.	Avg.	Below	Avg.	35:40:25	97	43.45	Avg.
Kosrae 5° 21'N, 162° 57'E	Below	Below	Avg-above	Avg-below	Avg-below	Below	Below	Below	40:35:25	95	41.24	Avg.
RMI												
Kwajalein 8° 43'N, 167° 44'E	Avg.	Below	Avg.	Avg-above	Avg-above	Avg.	Below	Avg-below	35:35:30	112	29.58	Avg.
Majuro 7° 04' N, 171° 17'E	Avg.	Above	Above	Avg-above	Avg-above	Below	Below	Avg-above	30:35:35	81	26.91	Below
Guam and CNMI												
Guam 13° 29'N, 144° 48' E	Below	Below	Below	Below	Avg.	Below	Below	Below	45:30:25	95	30.35	Avg.
Saipan 15° 06'N, 145° 48' E	Below	Below	Below	Below	Avg.	Below	Below	Below	40:35:25	92	20.85	Avg.
American Samoa												
Pago Pago 14° 20'S, 170° 43'W	Above	Avg-below	Above	Above	Avg-above	Above	Avg.	Above	25:30:45	120	21.09	Avg.
State of Hawaii												
19.7° - 21.0' N, 155.0° - 159.5' W												
Lihue	Below	Below	Avg-below	Avg-below	Avg.	Below	Below	Below	45:30:25	46	2.09	Below
Honolulu	Below	Below	Avg-below	Avg-below	Avg.	Below	Below	Below	45:30:25	30	0.23	Below
Kahului	Below	Below	Avg-below	Avg-below	Avg.	Below	Below	Below	45:30:25	226	1.94	Above
Hilo	Below	Below	Avg-below	Avg-below	Avg.	Below	Below	Below	45:30:25	88	20.28	Avg.

6	Hit
8	Miss
Heidke:	0.3068
RPSS:	-0.0144

Tercile Cut-offs for Season based on 1991-2020 Pacific Rainfall Climatologies (Moore)

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%								
near								
66.66%								
above (>)								

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
b						
bw						
above (>)						

6. Rainfall Outlook SON– September, October, November

SON Forecast Location	Rainfall Outlook	Probability Pre-Conference	Final Outlook	Final Probability
Palau				
w	b			
FSM				
w	b			-
	b			
b	b			-
wb	b			
	-	-		
RMI				
wwb	b			-
w	b			
Guam and CNMI				
D w				
w w				
American Samoa				
w w	b			
State of Hawaii				
l b	b			
	b			
w	b			
	b			

Tercile Cut-offs for ASO Season based on 1991-2020 Pacific Rainfall Climatologies (Moore)

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
b								
bw								
above (>)								

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
b						
bw						
above (>)						

wb w b

3. Drought monitoring updates.

A. End-of-August Monthly Drought Assessment:

i. With WxCoder III data, we have 23 stations in the monthly analysis.

ii. August was dry (less than the 4- or 8-inch monthly minimum needed to meet most water needs) at Pohnpei, Lukunoch, Nukuoro, Ulithi & Kapingamarangi (in the FSM) and Majuro, Jaluit & Wotje (in the Marshalls); it was wet everywhere else. August was drier than normal in the Marianas (except Guam), Marshalls (except Wotje), FSM, & Palau; it was near to wetter than normal in American Samoa.

iii. The end-of-August monthly analysis (August 31) is consistent with the weekly analyses for August 27 & September 3.

a. End-of-August drought conditions:

1. Abnormal dryness (D0) ended at Saipan.
2. Moderate drought (D1) began at Kapingamarangi.
3. D0 began Jaluit, Lukunor, Nukuoro, and Pohnpei and returned to Ulithi.
4. No analysis could be made due to no data at Fananu, Pingelap, Mili, & Utirik.
5. D-Nothing continued at all other locations.

b. Compared to the end-of-July monthly analysis:

1. 6 stations were in Dx -- 5 D0, 1 D1, none in D2, D3, or D4 -- in August.
2. 1 station was in Dx -- 1 D0, none in D1, D2, D3, or D4 -- in July.
3. Some August 2024 precipitation ranks:

a. **Kapingamarangi:** third driest August (in a 34-year record), sixth driest July-August, and fifth driest June-August and May-August.

b. **Lukunor:** third driest August (28 years), fourth driest July-August, and fifth driest June-August.

c. Pohnpei: third driest August (74 years).

d. **Nukuoro:** fifth driest August (41 years), third driest February-August, and ninth driest September-August.

e. **Ulithi:** third driest August (42 years), fourth driest December-August and November -August, and fifth driest September-August.

f. Airai: eighth driest August (73-year combined record).

g. **Jaluit:** seventh driest August (41 years), fourth driest July-August, and sixth driest September-August.

h. **Majuro:** sixth driest August (71 years), third driest July-August, and sixth driest September-August.

i. **Yap:** 27th driest August (74 years), but sixth driest September-August.

j. **Saipan:** 14th driest August (44 years), but eighth driest September-August.

k. Some stations at the wet end of the scale:

1. **Pago Pago** had the third wettest December-August (58 years).

i Current (Weekly) Drought Conditions: The discussion above is the monthly (end of August) analysis. The latest weekly USAPI USDM assessment may show different USDM classifications. The latest weekly USAPI USDM assessment is for September 10 (https://droughtmonitor.unl.edu/data/png/20240910/20240910_usdm_pg2.png).

i. The September 10 map is the same as the July 31 map, except Kapingamarangi was D0-S, Nukuoro was D-Nothing, and Ulithi was missing.

C. August 2024 NCEI State of the Climate Drought Report: The August 2024 NCEI SotC Drought report will go online tomorrow, September 13.

i. The web page url for the August report will be:

a. https://www.ncei.noaa.gov/access/monitoring/monthly-report/drought/202408#regional-usapi