NWS Climate Services

July PEAC Audio Conference Call Summary

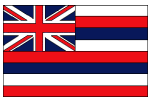
11 July, 1430 HST (12 July 2024, 0030 GMT)

June rainfall totals reported

% Normal: blue above normal & red below normal. Departure from normal: blue-above & red-below (same for 3 mon %)

	Rainfall	% Norm	Normal	Departure	3 mon %
	Inches	June	Inches	inches	AMJ
Airai	17.05	104	16.37	0.68	101
Yap	6.61	57	11.69	-5.08	56
Chuuk	15.38	127	12.11	3.27	107
Pohnpei	15.34	102	15.04	0.30	118
Kosrae	16.03	108	14.83	1.20	88
Kwajalein	10.17	147	6.93	3.24	134
Majuro	10.92	97	11.25	-0.33	112
Guam NAS	8.00	133	6.03	1.97	153
Saipan	7.71	214	3.61	4.10	117
Pago Pago	9.91	190	5.22	4.69	163
Lihue	0.82	64	1.29	-0.47	372
Honolulu	0.06	27	0.22	-0.16	559
Kahului	0.07	70	0.10	-0.03	153
Hilo	3.88	61	6.37	-2.49	125

Reports from around the Region



Hawaii (Kevin Kodama)

Precipitation Summaries for HI can also be found:

https://www.weather.gov/hfo/hydro_summary

Kauai

Rainfall totals for the month of June were near to below average at most of the gages on Kauaʻi. The U.S. Geological Survey's (USGS) rain gage on Mount Waiʻaleʻale had the highest monthly total of 22.90 inches (70 percent of average), and the highest daily total of 2.69 inches on June 21. The North Wailua Ditch rain gage, also operated by the USGS, posted its lowest June total since 2012.

Despite the recent dry conditions, nearly all of the gages on Kauaʻi continued to show near to above average rainfall for 2024 through the end of June. The Mount Waiʻaleʻale rain gage had the highest year-to-date total of 197.03 inches (105 percent of average).

Oahu

After the wettest May in over 30 years, most of the rain gages on Oʻahu had below average rainfall for the month of June. Leeward sites were especially dry with many sites having June totals at less than 30 percent of average. The Mānoa Lyon Arboretum rain gage had the highest monthly total of 9.33 inches (72 percent of average) and the highest daily total of 1.18 inches on June 22. Waiʻanae Valley and Kahuku had their lowest June totals since 2006 and 2008, respectively.

Nearly all of the gages on Oʻahu had near to above average rainfall totals for 2024 through the end of June. The USGS' Poamoho Rain Gage No. 1 had the highest year-to-date total of 98.80 inches (89 percent of average).

Maui

Most of the rain gages across Maui County had below average rainfall for the month of June. Locations with near to above average rainfall were mainly along the windward slopes. The USGS' rain gage on Puʻu Kukui had the highest monthly total of 23.80 inches (81 percent of average) and the highest daily total of 5.77 inches on June 22. The Kula Branch Station gage had its lowest June total since 1999. In contrast, the Māhinahina gage had its highest June total since 2005.

Maui County rainfall totals for 2024 through the end of June were mostly near to above average. The Puʻu Kukui rain gage had the highest year-to-date total of 136.04 inches (71 percent of average).

Big Island

June rainfall totals were below average at most of the gages on the Big Island. The near to above average totals were mainly along the lower Hāmākua slopes and along the Kona slopes south of Hualālai. The USGS' rain gage at Kawainui Stream had the highest monthly total of 20.00 inches (203 percent of average) and the highest daily total of 3.36 inches on June 22. The Kealakomo, Pali 2, and Waikiʻi gages had their lowest June totals since 2010.

Rainfall totals for 2024 through the end of June were near to above average at most of the gages on the Big Island. The USGS' rain gage at Honoliʻi Stream had the highest year-to-date total of 116.76 inches (105 percent of average).

Current State of ENSO and predictions

Issued 9 May 2024

ENSO Alert System Status: El Niño Advisory / La Niña Watch

Synopsis: **A transition from El Niño to ENSO-neutral is likely in the next month. La Niña may develop in June-August (49% chance) or July-September (69% chance).**

During April 2024, below-average equatorial sea surface temperatures (SSTs) emerged in small regions of the eastern Pacific Ocean. However, above-average SSTs prevailed across the rest of the equatorial Pacific. The latest weekly Niño index values remained between +0.5°C and +0.8°C in all regions, except for Niño-3 which was +0.3°C. Below-average subsurface temperatures held steady during the month (area-averaged index) with negative anomalies extending from the Date Line to the eastern Pacific Ocean. Low-level wind anomalies were easterly over the western equatorial Pacific, while upper-level winds were near average. Convection was near average overall across the equatorial Pacific Ocean and Indonesia. Collectively, the coupled ocean-atmosphere system reflected the continued weakening of El Niño and transition toward ENSO-neutral.

The most recent IRI plume favors an imminent transition to ENSO-neutral, with La Niña developing during July-September 2024 and then persisting through the Northern Hemisphere winter. The forecast team continues to favor the dynamical model guidance, which suggests La Niña could form as early as June-August 2024, with higher confidence of La Niña during the following seasons. La Niña generally trends to follow strong El Niño event, which also provides added confidence in the model guidance favoring La Niña. In summary, a transition from El Niño to ENSO-neutral is likely in the next month. La Niña may develop in June-August (49% chance) or July-September (69% chance).

6. Rainfall Verification AMJ– April, May, June (Josie)

The verification result of **AMJ** rainfall forecasts was 9 hits and 5 misses (Heidke score: 0.4478).

Location	UKMO	ECMWF	CA	NASA	NCEP	IRI	APCC	Rainfall Outlook	Final Probs	3 mo Verification		
										% norm	Total (in)	Tercile
Palau												
Below	45:30:25	101	37.50	Avg.	Airai 7° 22' N, 134° 32' E	Below	Below	Avg-below	Avg.	Avg-above	Avg-below	
	Below		Below	45:30:25	56	14.47	Below	FSM						
ve	Avg-below		Below	45:30:25	107	38.54	Avg.	Yap 9° 29' N, 138° 05' E	Below	Below	Below	Avg-below	Avg.
	Below		Below	45:30:25	118	60.77	Above	Chuuk 7° 28'N, 151° 51'E	Below	Below	Avg-below	Avg-above	Avg-abo
	Avg-below		Below	40:35:25	88	48.28	Below	Pohnpei 6° 59'N, 158° 12'E	Avg-below	Below	Avg-below	Avg.	Avg.
								Kosrae 5° 21'N, 162° 57'E	Below	Avg.	Avg.	Avg-above	Avg.
								RMI					
ve	Below		Below	45:30:25	134	25.53	Avg.	Kwajalein 8° 43'N, 167° 44'E	Avg-below	Below	Below	Avg-above	Avg-abo
	Below		Below	45:30:25	112	36.52	Avg.	Majuro 7° 04' N, 171° 17'E	Avg-below	Below	Avg-below	Above	Avg.
								Guam and CNMI					
w	Below		Below	45:30:25	153	18.99	Avg.	Guam 13° 29'N, 144° 48' E	Below	Below	Below	Avg-below	Avg-belo
w	Below		Below	45:30:25	117	10.73	Avg.	Saipan 15° 06'N, 145° 48' E	Below	Below	Below	Avg-below	Avg-belo
								American Samoa					
ve	Avg.		Avg-above	30:35:35	163	41.11	Above	Pago Pago 14° 20'S, 170° 43'W	Above	Avg-below	Avg-above	Avg-above	Avg-abo
								State of Hawaii					
								19.7° - 21.0' N, 155.0° - 159.5' W					
	Below		Below	45:30:25	372	17.50	Above	Lihue	Below	Below	Avg-below	Avg-below	Avg.
	Below		Below	45:30:25	559	6.37	Below	Honolulu	Below	Below	Avg-below	Avg-below	Avg.
	Below		Below	45:30:25	153	2.22	Above	Kahului	Below	Below	Avg-below	Avg-below	Avg.
	Below		Avg-below	35:35:30	125	27.04	Avg.	Hilo	Below	Below	Avg-below	Avg-below	Avg.

9	Hit
5	Miss
Heidke:	0.2734
RPSS:	-0.0296

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

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%	34.28	21	32.97	49.71	13.05	8.14	25.63	15.41
near								
66.66%	42.1	32.89	39.15	56.96	15.95	11.06	34.51	26.35
above (>)								

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
below (<)						
33.33%	4.74	1.23	1.25	21.42	22.42	47.62
near						
66.66%	5.97	1.77	2.17	29.01	33.53	51.87
above (>)						

6. Rainfall Outlook JAS– June, August, September

JAS Forecast Location	Rainfall Outlook	Probability Pre-Conference	Final Outlook	Final Probability
Palau				
Airai 7º 22' N, 134º 32' E	Above	25:30:45	-	-
FSM				
Yap 9º 29' N, 138º 05' E	Avg-Above	30:35:35	-	-
Chuuk 7º 28'N, 151º 51'E	Avg-Above	30:35:35	-	-
Pohnpei 6º 59'N, 158º 12'E	Avg-Above	30:35:35	-	-
Kosrae 5º 21'N, 162º 57'E	Avg-Below	35:35:30	-	-
	-	-		
RMI				
Kwajalein 8º 43'N, 167º 44'E	Avg-Below	35:35:30	-	-
Majuro 7º 04' N, 171º 17'E	Above	30:30:40	-	-
Guam and CNMI				
Guam 13º 29'N, 144º 48' E	Below	45:30:25	-	-
Saipan 15º 06'N, 145º 48' E	Below	40:35:25	-	-
American Samoa				
Pago Pago 14º 20'S, 170º 43'W	Above	30:30:40	-	-
State of Hawaii				
19.7º - 21.0' N, 155.0º - 159.5' W				
Lihue	Below	40:30:30	-	-
Honolulu	Below	40:30:30	-	-
Kahului	Below	40:30:30	-	-
Hilo	Below	40:30:30	-	-

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

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%	34.58	36.72	36.11	39.44	34.11	23.48	31.15	25.28
near								
66.66%	48.69	50.55	46.36	48.45	49.5	35.57	37.42	32.56
above (>)								

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
below (<)						
33.33%	3.95	0.72	0.56	20.35	14.63	38.77
near						
66.66%	6.72	1.86	1.63	29.27	25.93	50.18
above (>)						

Drought Monitoring Updates: (Richard Heim)

A. End-of-June Monthly Drought Assessment:

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

ii. June was dry (less than the 4- or 8-inch monthly minimum needed to meet most water needs) in the northern Marshalls (Wotje) and western & southern FSM (Yap, Nukuoro, Kapingamarangi); it was wet in American Samoa, the Marianas, Republic of Palau, most of the Marshalls, and much of the FSM. June was drier than normal in Palau, western & southern FSM (Yap & Kapingamarangi), and southern Marshalls (Majuro); it was near to wetter than normal in the Marianas, American Samoa, and other parts of the FSM and Marshalls.

iii. The end-of-June monthly analysis (June 30) is consistent with the weekly analyses for June 25 & July 2.

a. End-of-June drought conditions:

1. D3 improved to D0 at Rota & Saipan.
2. D3 improved to D1 at Ulithi.
3. D3 improved to D2 at Yap.
4. D2 improved to D0 at Guam.
5. D0 ended at Palau & Kwajalein.
6. D1 worsened to D2 at Wotje.
7. D-Nothing continued at all other locations.
8. Pingelap, Mili, Utirik, Woleai, & Fananu were plotted as missing due to missing data for the month.

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

1. 6 stations were in Dx -- 3 D0, 1 D1, 2 D2, none in D3 or D4 -- in June.
2. 9 stations were in Dx -- 2 D0, 2 D1, 1 D2, 4 D3, none in D4 -- in May.

iii. Some June 2024 precipitation ranks:

a. **Yap**: sixth driest June (in a 73-year record), third or fourth driest May-June back through September-June (all 9 time periods), 14th driest July-June (12-month period).

b. **Wotje**: eighth driest June (40 years), August-June, and July-June.

c. **Nukuoro**: fifth driest June (42 years), sixth driest May-June, and third driest February-June.

d. **Kapingamarangi**: eighth driest June (34 years) and May-June, but second wettest July-June.

e. **Jaluit**: fourth driest 12-month period June-May (38 years), but only 17th driest June.

f. **Ulithi**: seventh driest November-June (36 years) but ninth wettest June.

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

1. **Saipan** had the fourth wettest June (44 years).
Pago Pago had the second wettest December-June (58 years) and November-June.

Current (Weekly) Drought Conditions: The discussion above is the monthly (end of June) analysis. The latest weekly USAPI USDM assessment may show different USDM classifications. The latest weekly USAPI USDM assessment is for July 9 (https://droughtmonitor.unl.edu/data/png/20240709/20240709_usdm_pg2.png).

i. The July 9 map is the same as the June 30 map, except Kosrae was missing.

C. June 2024 NCEI State of the Climate Drought Report: The June 2024 NCEI SotC Drought report will go online tomorrow, July 12.

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

a. https://www.ncei.noaa.gov/access/monitoring/monthly-report/drought/202406#regional-usapi