



NWS Climate Services

February PEAC Audio Conference Call Summary

10 February, 1430 HST (11 February 2022, 0030 GMT)

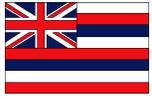


January rainfall totals reported

% 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	January	Inches	inches	NDJ
Airai	11.49	113	10.18	1.31	36.79
Yap	9.57	150	6.39	3.18	27.56
Chuuk	3.93	39	10.10	-6.17	32.61
Pohnpei	10.00	76	13.18	-3.18	51.31
Kosrae	12.33	74	16.67	-4.34	52.68
Kwajalein	1.25	40	3.16	-1.91	19.46
Majuro	4.73	61	7.74	-3.01	30.91
Guam NAS	5.84	146	4.01	1.83	20.18
Saipan	3.12	123	2.53	0.59	16.29
Pago Pago	15.39	115	13.34	2.05	35.80
Lihue	6.41	289	2.22	4.19	15.43
Honolulu	6.34	551	1.15	5.19	17.45
Kahului	0.08	3	2.30	-2.22	7.74
Hilo	1.20	14	8.87	-7.67	32.08

Reports from around the Region



Hawaii (Kevin Kodama)

Precipitation Summaries for HI can also be found:

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

Kauai

The first month of the new year produced below average rainfall totals at most of the gages on the island of Kauai. Enhanced rainfall early in January boosted totals along the south-facing slopes into the near to above average range. The U.S. Geological Survey's (USGS) rain gage on Mount Waialeale had the highest monthly total of 10.66 inches (43 percent of average) and the highest daily total of 3.25 inches on January 2. The Lihue Airport and Hanapepe rain gages recorded their highest January totals since 2004 and 2011, respectively.

Oahu

Due to the heavy rainfall over the first 3 days of the month, January rainfall totals were near to above average at most of the gages across Oahu. The Maunawili rain gage had the highest monthly total of 11.27 inches (126 percent of average) and the highest daily total of 6.31 inches on New Year's Day. Honolulu Airport and Olomana Fire Station had their highest January totals since 2004. Out of Honolulu Airport's 6.34 inches in January, 89 percent occurred during the first 3 days of the month. Aloha Tower, Hawaii Kai Golf Course, and Kalaeloa Airport had their highest January totals since 2005.

Maui

After a drenching in December, all of Maui County's gages recorded below average rainfall for the month of January, with most amounts at less than 20 percent of average. The USGS' rain gage at West Wailuaiki Stream had the highest monthly total of 4.01 inches (20 percent of average) and the highest daily total of 3.00 inches on January 12. Kahului Airport's 0.08 inches (3 percent of average) marked its lowest January total since 2001 and its fourth lowest January total on record. The rain gages at Haiku, Mahinahina, Makapulapai, and Pukalani posted their lowest January totals since 2012.

Big Island

Nearly all of the rain gages on the Big Island recorded below average rainfall totals for the month of January. Only Puu Waawaa's total of 2.60 inches (86 percent of average) managed to push into near average territory. Most of the rest of the Big Island's monthly totals were less than 30 percent of average. Kahua Ranch had the highest monthly total of 4.77 inches (66 percent of average) and the highest daily total of 4.41 inches on January 3. The Kamuela and Kamuela Upper gages both recorded their lowest January totals on record. Hilo Airport's 1.20 inches (15 percent of average) marked its lowest January total since 2010. Other similar January totals at Hilo Airport in 2019 (1.26 inches), 2016 (1.29 inches), 2010 (0.94 inches), and 2003 (1.24 inches) were all during El Nino events.

Current State of ENSO and predictions

Issued 10 February 2022

ENSO Alert System Status: [La Niña Advisory](#)

Synopsis: La Niña is likely to continue into the Northern Hemisphere spring (77% chance during March-May 2022) and then transition to ENSO-neutral (56% chance during May-July 2022).

Below-average sea surface temperatures (SSTs) weakened during January 2022, though anomalies stayed negative across most of the east-central and eastern equatorial Pacific Ocean. Most of the weekly ENSO indices remained between -0.5°C and -1.0°C in the last week, except for the Niño-4 index, which was -0.2°C . In contrast, subsurface temperatures (averaged between 180° - 100°W and 0-300m depth) trended to near average during the month. This large change in recent weeks reflected the eastward progression of a downwelling Kelvin wave, as indicated by the extension of above-average subsurface temperatures across much of the Pacific. Below-average subsurface temperatures were confined to the eastern Pacific Ocean at the end of the month. For the monthly mean, low-level equatorial winds were near average across much of the Pacific, while upper-level westerly wind anomalies remained over the east-central Pacific Ocean. Below-average convection strengthened near and west of the Date Line, while convection was near average over Indonesia. Overall, the coupled ocean-atmosphere system reflected a weakening La Niña.

The IRI/CPC plume average for the Niño-3.4 SST index continues to forecast a transition to ENSO-neutral during the Northern Hemisphere spring. Because the easterly trade winds have recently been strengthening and are predicted to continue in the near term, the forecaster consensus favors those models suggesting a slower decay of La Niña through the spring. However, ENSO-neutral is still anticipated to return by the Northern Hemisphere summer, although the chance does not exceed 57% during June-August 2022, reflecting the uncertainty associated with the spring predictability barrier. In summary, La Niña is likely to continue into the Northern Hemisphere spring (77% chance during March-May 2022) and then transition to ENSO-neutral (56% chance during May-July; click [CPC/IRI consensus forecast](#) for the chances in each 3-month period).

6. Rainfall Verification NDJ-November, December, February (Sony)

The verification result of NDJ rainfall forecasts was 10 hits and 4 misses (Heidke score: 0.4105). The 4 missed stations are Airai, Yap, Kwajalein, and Majuro.

Location	UKMO	ECMWF	CA	NASA	NCEP	IRI	APCC	Rainfall Outlook	Final Probs	3 mo Verification			PEAC NDJ	PEAC NDJ
										% norm	Total (in)	Tercile	Forecast Final	Probs Final
Palau														
Airai 7° 22' N, 134° 32' E	Above	Above	Avg-above	Avg-below	Above	Above	Above	Above	20:30:50	101	36.79	Avg.		
FSM														
Yap 9° 29' N, 138° 05' E	Above	Above	Avg-above	Avg-below	Above	Above	Above	Above	20:35:45	116	27.56	Avg.		
Chuuk 7° 28' N, 151° 51' E	Avg.	Avg-above	Avg-above	Above	Avg-above	Clim.	Avg-above	Avg-above	30:35:35	102	32.61	Avg.		
Pohnpei 6° 59' N, 158° 12' E	Avg.	Avg-above	Avg-above	Above	Avg-above	Above	Avg-above	Avg-above	30:35:35	116	51.31	Above		
Kosrae 5° 21' N, 162° 57' E	Avg.	Avg-above	Avg-above	Above	Avg-above	Clim.	Avg.	Avg-above	30:35:35	113	52.68	Avg.		
RMI														
Kwajalein 8° 43' N, 167° 44' E	Above	Avg-above	Avg.	Above	Avg.	Avg-above	Avg.	Avg-above	30:35:35	92	19.46	Below		
Majuro 7° 04' N, 171° 17' E	Avg.	Avg.	Avg-above	Avg.	Avg-above	Above	Avg.	Avg-above	30:35:35	95	30.91	Below		
Guam and CNMI														
Guam 13° 29' N, 144° 48' E	Avg.	Clim.	Avg.	Avg-below	Avg.	Avg-below	Avg.	Avg.	30:40:30	122	20.18	Avg.		
Saipan 15° 06' N, 145° 48' E	Avg.	Clim.	Avg.	Avg-below	Avg.	Avg-below	Avg.	Avg.	30:40:30	136	16.29	Avg.		
American Samoa														
Pago Pago 14° 20' S, 170° 43' W	Above	Avg-above	Avg-below	Avg-above	Avg.	Below	Avg-above	Avg-above	30:35:35	99	35.80	Avg.		
State of Hawaii														
19.7° - 21.0° N, 155.0° - 159.5° W														
Lihue	Avg-above	Above	Avg.	Avg.	Avg.	Avg-above	Avg.	Avg-above	30:35:35	173	15.43	Avg.		
Honolulu	Avg-above	Above	Avg.	Avg.	Avg.	Above	Avg.	Avg-above	30:35:35	456	17.45	Above		
Kahului	Avg-above	Above	Avg.	Avg.	Avg.	Above	Avg-below	Avg-above	30:35:35	114	7.74	Avg.		
Hilo	Avg-above	Above	Avg-above	Avg-above	Avg.	Above	Avg-below	Avg-above	30:35:35	105	32.08	Avg.		

10	Hit
4	Miss
Heidke:	0.4105
RPSS:	0.0139

Tercile Cut-offs for NDJ Season based on 1981-2010 Pacific Rainfall Climatologies (Luke He)

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%	29.21	21.82	30.16	38.94	14.88	11.78	32.31	21.12
near								
66.66%	38.94	28.08	36.49	47.32	21.97	16.53	36.56	25.30
above (>)								

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
below (<)						
33.33%	8.57	3.89	5.16	26.44	32.98	44.1
near						
66.66%	16.95	8.76	9.46	42.99	47.68	55.78
above (>)						

6. Rainfall Outlook FMA– February, March, April (Sony)

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

Tercile Cut-offs for JFM Season based on 1981-2010 Pacific Rainfall Climatologies (Luke He)

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%	23.9	14.98	22.35	34.4	8.52	6.98	20.29	11.78
near								
66.66%	32.43	21.91	31.31	43.28	11.35	9.47	24.26	16.47

above (>)

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
below (<)						
33.33%	6.52	2.08	4.24	22	35.08	43.67
near						
66.66%	13.75	7.8	8.23	44.53	42.92	53.33

above (>)

Drought monitoring updates.

Notes for USAPI USDM authors -- Highlights from Reports from Around the Region and drought discussion:

- Kwajalein: vegetation still pretty brown.
- Wotje: Satellite-derived precip looks dry Wotje & surrounding islands; probably last half of March before it gets better.
- Majuro: Not much crops on Majuro (limited bandana, taro, tree crops) so they focus on reservoir levels as impacts.
- Kapingamarangi & Nukuoro: Possibly could improve Kapinga & Nukuoro to D-Nothing next week if rains continue.
- Chuuk: Wildfires happening on Chuuk, vegetation is drying out. 2 water tanks service downtown area, are half full, in northern part of Chuuk. Guam, Saipan: were some decent fires in south part of Guam. Vegetation still green on Guam, D-nothing good. Saipan drier, but drought concerns are minimal.

Drought monitoring updates.

A. End-of-January Monthly Drought Assessment:

- With WxCoder III data, we have 23 stations in the monthly analysis.
- January was dry (less than the 4- or 8-inch monthly minimum needed to meet most water needs) across the RMI (all analyzed stations), at Saipan in the Marianas, and in parts of the FSM (Woleai, Chuuk, Kapingamarangi, Mwoakilloa, & Pingelap); it was wet elsewhere. January was drier than normal at Kwajalein & Majuro (RMI), and Chuuk, Kapingamarangi, Kosrae, & Pohnpei (FSM); January was wetter than normal at the rest of the stations.
- The end-of-January monthly analysis (January 31) is consistent with the weekly analyses for January 25 and February 1, and is the same as the February 1 analysis. Compared to the end-of-December monthly analysis:
 - D1 improved to D0 at Kapingamarangi.
 - D0 ended at Guam.
 - D0 developed at Saipan.
 - D1 worsened to D3 at Wotje.
 - D0 worsened to D2 at Kwajalein.
 - D1 developed at Ailinglaplap and Fananu.
 - D0 developed at Majuro, Mili, Nukuoro, Chuuk, and Woleai.
 - The USDM status stayed the same (D-Nothing) at the other stations.
 - Utirik was plotted as missing due to missing data for the month.
 - Fananu's analysis is based more on impact reports than on rainfall data (due to intermittent communications, a lot of rainfall data is missing). Fananu's January rainfall total of 1.22 inches was based on only 13 days of data (18 days were missing). I'm assuming that rain may have fallen on the missing days, so the 1.22 is an underestimate.
- Some January 2022 precipitation ranks:
 - Wotje:** driest January (in 39 years of data) and fourth driest December-January.
 - Ailinglaplap:** third driest January (39 years of data) and second driest May-January.
 - Jaluit:** fifth driest January (39 years).