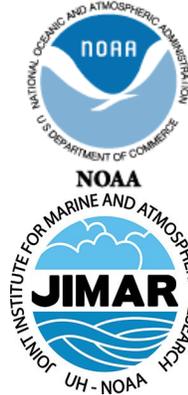




NWS Climate Services

January PEAC Audio Conference Call Summary

14 January, 1430 HST (15 January 2021, 0030 GMT)



University of
Hawai'i
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UH/SOEST

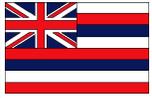


December rainfall totals reported

% 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	December	Inches	inches	OND
Airai	15.82	116	13.62	2.21	45.90
Yap	16.99	200	8.51	8.48	46.97
Chuuk	20.47	182	11.25	9.22	44.49
Pohnpei	26.95	168	16.08	10.87	70.57
Kosrae	29.87	185	16.11	13.76	70.64
Kwajalein	4.02	60	6.66	-2.64	32.61
Majuro	16.71	147	11.39	5.32	54.05
Guam NAS	8.02	157	5.11	2.91	35.10
Saipan	7.43	193	3.85	3.58	23.46
Pago Pago	14.55	113	12.84	1.71	49.43
Lihue	2.05	65	3.17	-1.12	11.29
Honolulu	0.31	23	1.32	-1.01	3.67
Kahului	0.18	7	2.66	-2.48	0.69
Hilo	14.73	144	10.24	4.49	38.34

Reports from around the Region



Hawaii (Kevin Kodama)

Precipitation Summaries for HI can also be found:

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

Kauai

Rain gages across Kauai recorded near to below average rainfall for the month of December. Most of the totals from the leeward sites were below 30 percent of average. The U.S. Geological Survey's (USGS) rain gage on Mount Waialeale had the highest monthly total of 25.01 inches (83 percent of average) and the highest daily total of 6.60 inches on December 25. A slightly lower total of 6.19 inches was recorded by this gage on the following day. The USGS' Mohihi Crossing rain gage had its lowest December total since 2009.

Annual totals for 2020 were near to above average at all of the rain gages on Kauai. The Mount Waialeale gage had the highest 2020 rainfall total in the state with 421.68 inches (107 percent of average). This was only the second time in the last 10 years where the Mount Waialeale total exceeded 400 inches. In the 1980s, the annual total passed 400 inches seven times.

Oahu

All of the gages on Oahu posted near to below average rainfall totals for December. Most of the west Oahu monthly totals were below 20 percent of average. The Manoa Lyon Arboretum gage had the highest monthly total of 12.05 inches (87 percent of average) and the highest daily total of 4.10 inches on December 26 associated with the remnants of a cold front rain band. The Waimanalo gage posted its lowest December total since 2002, and the Kalaeloa and Schofield Barracks sites had their lowest December totals since 2005.

Oahu rainfall totals for 2020 were mostly near average with some below average amounts, mainly in the leeward areas. The highest annual total came from the USGS' Poamoho Rain Gage No. 1 with 155.10 inches (68 percent of average).

Maui

The December rainfall totals from Maui County were mostly below average with many leeward monthly totals at less than 20 percent of average. The only near average amounts were from windward locations at West Wailuaiki Stream on Maui and Puu Alii on Molokai. The highest monthly total of 17.29 inches was from the USGS' rain gage on Puu Kukui, though this was only 58 percent of average. This gage also had the highest daily total of 3.02 inches on December 26 from the remnants of the above mentioned cold front rain band. The Haiku, Hana Airport, Kahului Airport, and Makapalapai gages logged their lowest December totals since 2005.

All of the Maui County rainfall totals for 2020 were near to below average. Many of the near average totals were from the slopes of Haleakala and Lanai, with below average amounts mainly coming from the West Maui Mountains and the leeward areas of Molokai. The Puu Kukui rain gage had the highest annual total of 234.05 inches (64 percent of average).

Big Island

After an October with windward sites recording less than half of the average monthly rainfall, November totals from these same sites were mostly above average. The slopes of the South Kona District also received well above average rainfall. Below average monthly totals were mostly in the Kau, South Kohala, and North Kona Districts, as well as the Pohakuloa region in the interior of the island. The Mountain View rain gage had the highest monthly total of 28.44 inches (150 percent of average), followed closely by USGS' Saddle Road Quarry gage with 28.36 inches (218 percent of average). The Saddle Road Quarry gage had the highest daily total of 11.93 inches during the above mentioned heavy rain event on November 22. Among the windward Big Island sites, there were 11 with November totals greater than 20 inches. On the Kona slopes, the Kealakekua gage observed its highest November total on record.

Most of the Big Island rain gages had near to above average rainfall totals for 2020 through the end of November. The USGS' rain gage at Kawaiinui Stream had the highest year-to-date total of 166.56 inches (137 percent of average).

Current State of ENSO and predictions

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

Issued 14 January 2021

Synopsis: La Niña is expected to continue through the Northern Hemisphere winter 2020-21 (~95% chance during January-March), with a potential transition to ENSO-neutral during the spring 2021 (55% chance during April-June).

Below-average sea surface temperatures (SSTs) extend from the western to the eastern Pacific Ocean, and reflect the continuation of La Niña. Most of the Niño indices were relatively steady throughout the month (the latest weekly Niño-3.4 index value was -1.1°C), with negative values strengthening to -1.2°C in the westernmost Niño-4 region. The subsurface temperature anomalies on the equator (averaged from 180° - 100°W) remained negative, but weakened slightly in the eastern equatorial Pacific Ocean. The atmospheric circulation associated with La Niña strengthened over the tropical Pacific Ocean during the month. Low-level wind anomalies were easterly over the western to east-central tropical Pacific and upper-level wind anomalies were westerly across most of the tropical Pacific. Tropical convection was suppressed over the western and central Pacific and enhanced around the Philippines and parts of Indonesia. Both the Southern Oscillation and Equatorial Southern Oscillation strengthened during December. Overall, the coupled ocean-atmosphere system is consistent with the ongoing La Niña.

A majority of the models in the IRI/CPC plume predict La Niña to continue through the Northern Hemisphere spring. The forecaster consensus is in line with the models and suggests a transition to ENSO-neutral in the late spring 2021. However, the forecast uncertainty increases throughout the summer and fall, which is reflected by the lower probabilities (less than ~50%) for La Niña and ENSO-neutral. These low forecast probabilities beyond the spring are consistent with the spring predictability barrier, when model forecasts are historically less accurate than during other times of the year. In summary, La Niña is expected to continue through the Northern Hemisphere winter 2020-21 (~95% chance for January-March), with a potential transition to ENSO-neutral during the spring 2021 (55% chance during April-June; click [CPC/IRI consensus forecast](#) for the chances in each 3-month period).

6. Rainfall Verification OND– October, November, December (Sony)

The verification result of **OND** rainfall forecasts was 10 hits and 4 misses (Heidke score: 0.4515).

OND Verification Location	Rainfall Outlook	Final Probs	3 month Verification			
			% norm	Total (in)	Tercile	
Palau						
Airai 7° 22' N, 134° 32' E	Above	20:30:50	121	45.90	Above	
FSM						
Yap 9° 29' N, 138° 05' E	Avg-above	30:35:35	159	46.97	Above	
Chuuk 7° 28' N, 151° 51' E	Avg-above	30:35:35	133	44.49	Above	
Pohnpei 6° 59' N, 158° 12' E	Avg-above	30:35:35	153	70.57	Above	
Kosrae 5° 21' N, 162° 57' E	Avg.	30:40:30	173	70.64	Above	
RMI						
Kwajalein 8° 43' N, 167° 44' E	Avg-above	30:35:35	112	32.61	Above	
Majuro 7° 04' N, 171° 17' E	Avg.	30:40:30	144	54.05	Above	
Guam and CNMI						
Guam 13° 29' N, 144° 48' E	Avg-above	30:35:35	147	35.10	Above	
Saipan 15° 06' N, 145° 48' E	Avg-above	30:35:35	117	23.46	Above	
American Samoa						
Pago Pago 14° 20' S, 170° 43' W	Avg-above	30:35:35	153	49.43	Above	
State of Hawaii						
19.7° - 21.0' N, 155.0° - 159.5' W						
Lihue	Avg.	30:40:30	113	11.29	Avg.	
Honolulu	Avg.	30:40:30	93	3.67	Below	
Kahului	Avg.	30:40:30	14	0.69	Below	
Hilo	Avg.	30:40:30	127	38.34	Avg.	
					9	Hit
					5	Miss
					Heidke:	0.4515
					RPSS:	0.0807

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

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwai
below (<)								
33.33%	31.24	27.44	30.88	43.58	24.01	20.13	35.14	29.07
near								
66.66%	38.99	32.32	38.67	49.78	29.41	23.26	41.82	31.88

above (>)

	Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
below (<)						
33.33%	9.18	4.36	4.18	28.26	31.15	39.86
near						
66.66%	15.56	8.52	8.05	41.99	41.56	44.83

above (>)

6. Rainfall Outlook JFM: January, February, March (Sony)

JFM Forecast Location	Rainfall Outlook	Probability Pre-Conference	Final Outlook	Final Probability
Palau				
Airai 7° 22' N, 134° 32' E	Above	20:30:50		
FSM				
Yap 9° 29' N, 138° 05' E	Above	20:35:45		
Chuuk 7° 28' N, 151° 51' E	Above	25:35:40	Avg-Below	35:35:30
Pohnpei 6° 59' N, 158° 12' E	Above	25:35:40		
Kosrae 5° 21' N, 162° 57' E	Avg-above	30:35:35		
RMI				
Kwajalein 8° 43' N, 167° 44' E	Above	25:35:40		
Majuro 7° 04' N, 171° 17' E	Avg-above	30:35:35		
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-above	30:35:35	Avg.	30:40:30
State of Hawaii				
19.7° - 21.0' N, 155.0° - 159.5' W				
Lihue	Avg-above	30:35:35		
Honolulu	Avg-above	30:35:35	Avg-Below	35:35:30
Kahului	Avg-above	30:35:35	Avg-Below	35:35:30
Hilo	Avg-above	30:35:35		

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

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwai
below (<)								
33.33%	23.9	14.98	22.35	34.4	8.52	6.98	20.29	7.24
near								
66.66%	32.43	21.91	31.31	43.28	11.35	9.47	24.26	11.19

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 (>)