NWS Climate Services

November PEAC Audio Conference Call Summary

8 November, 1430 HST (9 November 2018, 0030 GMT)

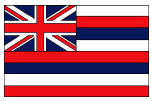
October rainfall totals reported (Joe)

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

*** Denotes missing data

	Rainfall	% Norm	Median	Departure	3 Month Total
	Inches	October	Inches	Inches	ASO
Koror	14.12	104	13.61	0.51	21.49
Yap	5.56	46	12.18	-6.62	35.03
Chuuk	10.66	93	11.51	-0.85	41.54
Pohnpei	15.31	100	15.27	0.04	50.62
Kosrae	3.70	34	10.94	-7.24	35.49
Kwajalein	7.05	63	11.18	-4.13	34.51
Majuro	8.53	67	12.73	-4.20	30.95
Guam NAS	8.87	78	11.44	-2.57	53.93
Saipan	11.92	112	10.62	1.30	48.43
Pago Pago	11.83	128	9.26	2.57	30.19
Lihue	5.02	152	3.30	1.72	15.16
Honolulu	4.62	367	1.26	3.36	7.42
Kahului	1.82	331	0.55	1.27	5.72
Hilo	18.23	212	8.61	9.62	72.59

Reports from around the Region



Hawaii (Kevin)

Kauai

Most of the rain gages across Kauai recorded near to above average monthly rainfall totals. The U.S. Geological Survey's (USGS) gage on Mount Waialeale had the highest monthly total of 26.88 inches (80 percent of average) and the highest daily total of 4.52 inches on October 29. Unlike the rest of the state, there were no monthly records broken at any of the gages on Kauai.

Relatively wet conditions maintained above average rainfall totals at nearly all of the Kauai gages for 2018 through the end of October. The highest year-to-date total was 457.08 inches (140 percent of average) at Mount Waialeale. This site is on pace to have its wettest year since 1994.

Oahu

It was a very wet month across Oahu with several sites posting their highest October rainfall totals on record. These record-breaking sites were Aloha Tower, Hawaii Kai Golf Course, Hakipuu Mauka, Luluku, Maunawili, Manoa Lyon Arboretum, Niu Valley, Waipio, Poamoho Rain Gage No. 1, Waimanalo, and Waihee Pump. The Palolo Fire Station gage had its wettest October since 1992. The Manoa Lyon Arboretum gage logged the highest monthly total of 32.87 inches (257 percent of average) and the highest daily total of 5.32 inches on October 7. This site logged more than an inch of rainfall on 10 days during the month.

Oahu rainfall totals were near to above average for 2018 through the end of October at most of the gages. The USGS' Poamoho Rain Gage No. 1 had the highest year-to-date total of 208.43 inches (113 percent of average).

Maui

Most of the gages across Maui County posted above average rainfall totals for the month of October. The USGS' West Wailuaiki gage had the highest monthly total of 29.61 inches (172 percent of average) and the highest daily total of 4.39 inches on October 19. Records for the wettest October were broken at the Haiku, Hana Airport, and Kahakuloa gages. All three sites are along the windward slopes of Maui. Molokai Airport and Lahainaluna had their highest October totals since 2006.

Rainfall totals for 2018 through the end of October were near to above average at most of the Maui County gages. The USGS' West Wailuaiki gage had the highest year-to-date total of 296.51 inches (157 percent of average).

Big Island

October rainfall totals were above average at most of the rain gages on the Big Island. Records for the wettest October were broken at Glenwood, Honaunau, and Pahala. Kapapala Ranch had its highest October total since 1989. The USGS' Saddle Road Quarry gage had the highest monthly total of 32.10 inches (299 percent of average). The highest daily total was 7.26 inches on October 29 from the Glenwood gage.

Big Island rainfall totals for 2018 through the end of October were near to above average at most of the gages. The Saddle Road Quarry gage had the highest year-to-date total of 340.84 inches (297 percent of average). Hilo Airport is on pace to have its annual rainfall rank among the top 10 totals in a data record going back to 1949.

American Samoa (Taylor, Chip):

August in American Samoa (AS) is influenced by Tropical Wet climate. AS is currently wet. The month of September and October received 132% and 128% of normal (% of normal and % are synonymously used throughout this call-note) rainfall. Trades are picking up as SPCZ is active over American Samoa! There is no report of any significant damage, but sea level stays elevated. Model-based PEAC's seasonal climate outlook is now indicating above-average rainfall for NDJ with moderate confidence. The sea level is staying above but stable now. Forecasts indicate that it will stay elevated over the next three months.

Kwajalein (Justin):

The weather in Kwajalein is bit dry now. The month October recorded 63% of normal rainfall. There are some high waves, but no inundations reported so far. Current model projections show most of the precipitation staying to the north or southwest. Winds during this period will be gentle and generally easterly. Cloud coverage will be moderate due to the shower activity surrounding the atoll. There are some scattered showers across the atoll. The sea level currently stays marginally above normal. PEAC-model forecasts have trended to show average-above rainfall and normal sea level over the next 3 months, and there is no active TC warning now.

(Also see https://www.rts-wx.com/forecasts-kwajalein-atoll-forecast)

Reports from around the Region (CON'T)

Majuro (Nover):

Majuro has been receiving good rainfall since January 2018. The rainfall in July and August were 142% and 94% of normal. The heavy 2018 spring rains in the RMI are being treated as a red flag that the status of ENSO may soon shift to El Niño. While the heavy rains since July has sufficiently improved Majuro's drought situation, the recent rainfall (67% in October) has made Majuro a bit dry. Current reserve is 20 million gallons, which is bit low as compared average 30 million gallons. However, this is still manageable without any major water crisis. PEAC-model forecasts have trended average rainfall and slightly elevated sea level over the next 3 months, and there is no active TC warning now.

Pohnpei (Mark):

Currently, Pohnpei is wet. There has been some westerly wind in Pohnpei and 100% of normal rainfall has been recorded in October. However, the streamflow is less than normal. The southern part of the island is drier than the eastern part. There have been some high surf, but no inundation reported, so far. PEAC-model forecasts have trended average rainfall and slightly elevated sea level over the next 3 months. With the long-range evolution of ENSO now moving in the direction of El Niño, and with some climatic signals indicating a possible enhancement to typhoon activity, PEAC anticipates an elevation of the risk of impacts to Pohnpei Island and atolls by the near passages of tropical storms and perhaps typhoons in the remaining months of 2018. The greatest risk is anticipated to rise in the final months of the year (OND) to 30% chance (to 1-in-9) for at least the occurrence of large TC-related waves (> 15 feet), gales (35 kt or greater) or very heavy rainfall (> 10 inches in 24 hours).

Kosrae (Mark):

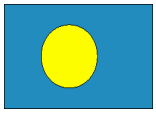
Kosrae is dry now. It only recorded 34% of normal rainfall in October. PEAC-model forecasts have trended average-below rainfall and slightly elevated sea level over the next 3 months. Damaging TCs are rare at Kosrae, and those rare storms that do occasionally strike Kosrae do so primarily during strong El Niño events. Therefore, depending on a move toward El Niño conditions beyond the summer months, the risk of a late-season tropical storm tracking near but north of Kosrae could be enhanced. The PEAC is now leaning toward an expectation of a higher than average risk of TC impacts for Kosrae (high waves, heavy rainfall and rough seas) in the fall months (NDJ).

Chuuk (Sanchez):

Chuuk recorded 93% of normal rainfall in October. The island is enjoying normal conditions now with no report of water shortages. PEAC forecasts indicated average-below rainfall for the island state for at least the next three months. Although there is no operational tide gauge now sited at Chuuk, but based on virtual satellite data, it is seen that the mean sea level throughout Chuuk State has been falling over the past few months. Now it is marginally below normal. With the long-range evolution of ENSO moving in the direction of El Niño, and with some climatic signals indicating a possible enhancement to typhoon activity in Micronesia, the PEAC anticipates an elevation of the risk of impacts in Chuuk State by the near passages of tropical storms or typhoons. The PEAC assesses the risk of potentially damaging effects from a passing TC at 20-25% chance (to 1-in-3) in the NDJ season.

Yap (Chip):

Yap is having their monsoon season without any monsoon activity as of yet. However, as the monsoon trough is moving towards Yap, we may expect adequate rainfall soon. Yap received 48% of normal rainfall in October. Everything looked normal (e.g., reservoirs are full and streams are flowing well) in September, but it turned out to be bit drier in October. PEAC forecasts are favoring average-below rainfall and below normal sea level in the next three months. With the long-range evolution of ENSO now moving in the direction of El Niño, and with some climatic signals indicating a possible enhancement to typhoon activity in Micronesia, PEAC anticipates an elevated risk of impacts to Yap State by the near passages of tropical storms and/or typhoons, particularly in the fall.



Palau (Chip):

Note that the rain-gauge of Koror has moved to higher location and that made Koror rainfall data availability bit difficult now. However, as Chip G. reported, we will be taking rainfall data from the station Palau. Chip will provide necessary information to PEAC later.

Palau has been dry with putty showers. PEAC forecast favors below-average rainfall and below normal sea level in the next season. PEAC anticipates an elevation of the risk of impacts to Palau by the near passages of tropical storms and typhoons later in the year (NDJ). The risk of damaging effects from TCs is anticipated to rise in the final months of the year (OND) to a 25% chance (to 1-in-4) for the occurrence of large TC-related waves (> 15 feet), gales (35 kt or greater) or very heavy rainfall (> 10 inches in 24 hours).

Reports from around the Region (CON'T)

Guam and CNMI (Mark):

The summer monsoon became well established in the western North Pacific Basin and, after prolonged dry conditions, Guam and Saipan are now wet. The 78% and 112% of rainfall in October in Guam and Saipan have further improved the dry conditions and changed these two islands to wet and green again. The overall island climate is normal. PEAC forecasts are now indicating average rainfall for both Guam and Saipan over the next three months and slightly below normal sea level. The long-term rainfall forecast (late fall 2018 into winter 2018-2019) is contingent upon the evolution of ENSO, with a stronger and earlier transition into El Niño bringing about the best chances for wetter than average conditions and enhanced TC activity. That means, we expect more tropical cyclone activity than in 2016 and 2017, about the same activity as in 2015 for Guam, but not quite as busy as 2015 for the CNMI.

The major activity in October was the Super Typhoon Yutu, the most powerful tropical cyclone on Earth in 2018, strikes the Northern Mariana Islands. The direct strike destroyed homes, snapped trees and power lines and caused roofs to collapse on Tinian and neighboring Saipan. One person died and at least a dozen more were injured, according to The Guam Daily Post. "Extensive damage to critical infrastructure on Saipan and Tinian has left the Commonwealth devastated with many families displaced," Gregorio Kilili Camacho Sablan, the Commonwealth of the Northern Marina Islands' delegate to U.S. Congress said in a press release.

Pic. 1: Saipan's airport and a collapsed structure near the airport

(Source: https://www.accuweather.com/en/weather-news/guam-northern-mariana-islands-on-alert-for-typhoon-yutu/70006416)

Tropical Cyclones (Mark L)

The major activity in October was the Super Typhoon Yutu, the most powerful tropical cyclone on Earth in 2018, strikes the Northern Mariana Islands. Super Typhoon Yutu made landfall across Tinian and Saipan on Wednesday (October 25), dealing a catastrophic blow of damaging winds and torrential rainfall to both islands. Yutu quickly strengthened from a tropical depression on Sunday into a super typhoon by Wednesday as it became the strongest tropical cyclone so far this year. Yutu was the equivalent of a Category 5 hurricane in the Atlantic or east Pacific basins at the time of landfall on Tinian, with maximum sustained winds of 290 km/h (180 mph).

The PEAC will adopt the press-release forecast by the WFO Guam (Mr. Charles P. Guard and collaborators) for the 2018 typhoon season for Guam and the CNMI, wherein the odds for a severe tropical storm at each location is given as 50% (about average); the odds of a CAT 1 typhoon is set at 25% (above average); and the odds for a major typhoon (CAT 3 or higher) is set at 15% (slightly above average). Elsewhere in Micronesia, the odds for damaging TC strikes are set to slightly above average (for example, the average annual number of named tropical cyclones passing within 180 n mi of Yap or Palau is four, with a 10-15% chance of a damaging strike). Eastward of Chuuk State, the risk of a tropical storm or typhoon is much lower than at locations farther to the west, except during strong or some moderate El Niño events. During 2016 and 2017, the PEAC set very low odds (< 10%) for TC activity eastward of Chuuk State. This year, the PEAC anticipates an enhancement of TC development at locations to the east of Chuuk State, with the odds of some damaging effects from a TC (high surf; gale-force or stronger wind; and extreme rainfall > 10 inches in 24 hours) set at 25% (1-in-4) for all locations. This is an above average risk and is well above the level of activity seen throughout Micronesia in both 2016 and 2017.

The 2017-18 South Pacific cyclone season ended on June 30, 2018, with no TC activity (< 10% risk of damaging impacts) anticipated to occur near American Samoa through September. In the South Pacific, near-normal tropical cyclone activity overall during November-April, but increased east and reduced west of the Date Line; multiple severe tropical cyclones expected Forecasters indicate another seven to 11 named tropical cyclones (TC) could occur in the Southwest Pacific basin between November and April, following the very early TC Liua that formed in September.

Sea Level Discussion Remarks (Rashed) All values are in inches (1 inch=25.4 mm); Seasonal cycle removed.

Tide Gauge stations	Seasonal Forecasts NDJ (mean[1]) (ano)	SD of ASO (mean)	Monthly mean[1] anomaly — Observed rise/fall			Current State/ Trend	Seasonal Fore-casts NDJ (max[2]) (ano.)	SD of ASO (max)	Monthly max[2] anomaly — Observed rise/fall		
			Aug/ 2018	Sep/ 2018	Oct/ 2018	ASO 2018			Aug/ 2018	Sep/ 2018	Oct/ 2018
Marianas, Guam	**0**	3.5	+2	**+1.8**	**-1.8**	Normal	+17	3.2	+19	**+26**	**+15**
Malakal, Palau	**-1**	4.3	-3	-4	-4.2	**Below**	+35	4.3	+33.5	+33	+31
Yap, FSM	**-1**	4.7	-1.5	-2	-2.5	Normal	+29	4.7	+28.3	+26	+24
Chuuk, FSM***	**0**	*	**+1.1**	**+1.1**	**-1**	Normal	+29				
Pohnpei, FSM	**+1**	3.8	+1	+1	**+3.3**	Normal	+32	3.9	**+30**	**+27**	**+31**
Kapingamarangi	**+4**	**	+7	+9	**	**Above**	+30	**	+35	**+32**	**+39**
Majuro, RMI	**+3**	2.8	+2.5	+5	**+5.5**	**Above**	+42	3.5	+47	+46	+43
Kwajalein, RMI	**+2**	3.2	-1	+1.7	**+3.3**	Normal	+39	3.7	**+37.5**	**+38**	**+38**
Pago Pago*	**+10 (+5)**	3.2	+12 [+7]	+11 [+6]	+10 [+5]	**Above**	+31 (+25)	3.4	**+38**	**+36**	**+33**
Honolulu	**+1**	1.8	+4	+3.8	+3	**Above**	+22	2.4	+24	**+23**	**+19**
Hilo	**+1**	1.8	**+3**	**+7**	**+5**	**Above**	+26	2.3	+25	**+28**	**+25**

+/- indicate positive anomaly (rise) and negative anomaly (fall) respectively. Note that any changes between (0~ ±1) inch is considered to be negligible. Also note that changes within the range of (+/-) 2 inches are unlikely to cause any adverse climatic impact. *** (Experimental) Satellite Aviso Altimetry data, ** Data currently unavailable; *Figures in parenthesis for monthly-max anomaly indicates difference between the maximum anomaly for the given month and the long-term monthly average anomaly.*

1: D*ifference between the mean sea level for the given month and the 1983 through 2001 monthly mean sea level value at each station (seasonal cycle removed);* 2*: Same as 1 except for maxima; SD stands for standard deviations.*

**** In Pago Pago,*** There was a level shift (approximately 5 inches) in American Samoa at the time of September 2009 earthquake. So, -5 inches has been adjusted (shown in parenthesis) to the current tide-gauge values of Pago Pago.

Current Conditions: Consistent to forthcoming **Warm Pool El Niño (WPE)**, all of the north Pacific stations displayed marginal fall in October also. Some of the stations **(e.g., Pohnpei, Majuro, and Kwajalein) recorded rise too**. Hawaii sea levels are also elevated—Hilo recorded slight fall in October. Note that the south Pacific station (i.e., Pago Pago) is elevated (+6). This station maintains 4-6 months' time-lag w.r.t north Pacific stations (i.e., Guam and the Marshalls).

The recent fall of sea level may be explained as WP El Niño, the positive sea level anomaly is located over the central Pacific. In this regard, the sea level anomaly in the tropical central Pacific may not efficiently produce a warm SST anomaly. Furthermore, anomalous easterlies over the tropical eastern Pacific induce shoaling of the thermocline and play a role of cooling, rather than warming, over the tropical eastern Pacific. In addition, there are anomalous easterlies over the eastern Pacific; as a result, the sea level anomaly is small over the eastern Pacific, indicating that the thermocline there does not support SST warming.

Impacts: While the MSL is normal or falling **(e.g. significant fall in Guam**), t*ides have been high with high waves for some of the islands. However, there is no noticeable inundation in low-lying atolls and there is no report for damage, so far.*

Forecasts for OND: PEAC-CCA Statistical model is predicting **normal to marginally** above-normal sea level for all the stations in FSM and RMI in the forthcoming NDJ season. Stations in the north (e.g., Guam, Malakal, and Yap) are likely slightly below normal. In Hawaii, both Honolulu and Hilo are likely to be elevated.

5. Current State of ENSO and predictions: (Rashed) **ENSO Alert System Status: El Niño Watch**

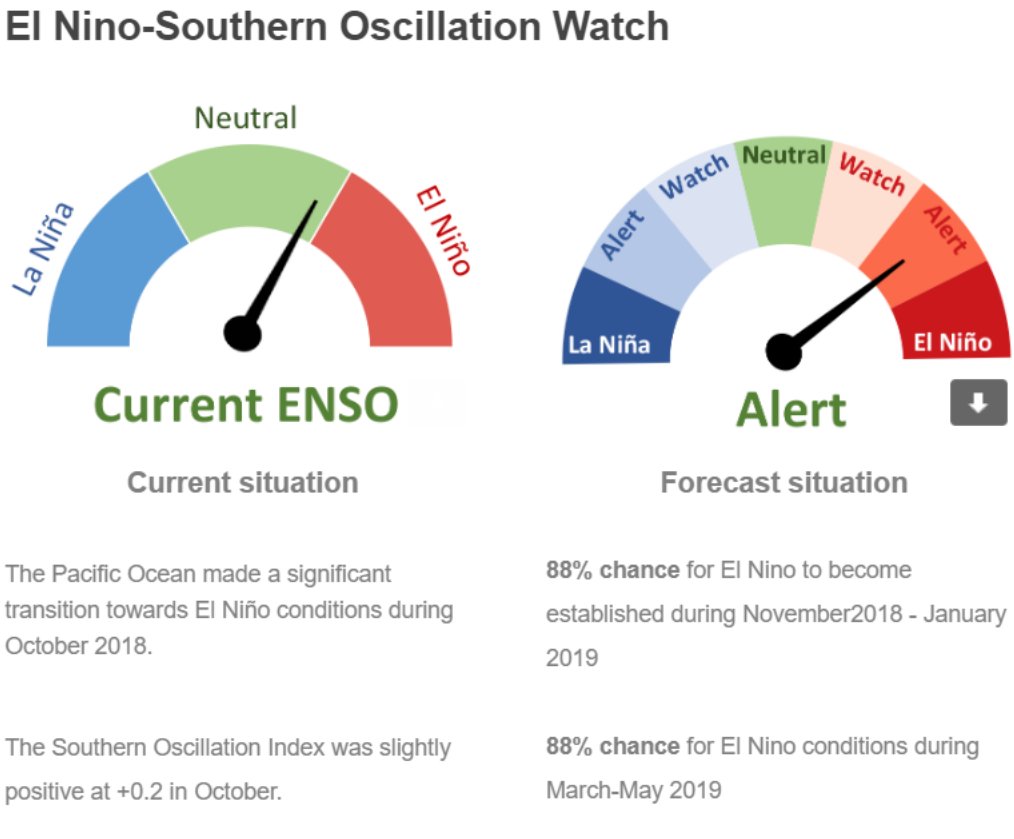
Synopsis: El Niño is favored to form in the next couple of months and continue through the Northern Hemisphere winter 2018 -19 (70-75% chance).

ENSO-neutral continued during September, but with increasingly more widespread regions of above-average sea surface temperatures (SSTs) across the equatorial Pacific Ocean. Over the last month, all four Niño index values increased, with the latest weekly values in each region near +0.7°C. Positive subsurface temperature anomalies (averaged across 180°-100°W) also increased during the last month, due to the expansion and strengthening of above-average temperatures at depth across the equatorial Pacific. Convection was increasingly suppressed over Indonesia and around the Date Line. Low-level westerly wind anomalies were evident over the western and east-central Pacific, with some of the strongest anomalies occurring over the eastern Pacific during the past week. Upper-level wind anomalies were easterly over the east-central Pacific. Overall, the oceanic and atmospheric conditions reflected ENSO-neutral, but with recent trends indicative of a developing El Niño.

The majority of models in the IRI/CPC plume predict El Niño to form during the fall and continue through the winter. The official forecast favors the formation of a weak El Niño, consistent with the recent strengthening of westerly wind anomalies and positive temperature trends in the surface and subsurface ocean. In summary, El Niño is favored to form in the next couple of months and continue through the Northern Hemisphere winter 2018-19

NIWA Island Climate Update Summary:

- NIWA has moved to the 'El Niño Alert' threshold in the month of November. This is a major change from the previous months when the ENSO condition was marked as 'El Niño Watch'.
- The Pacific Ocean made a significant transition towards El Niño conditions during October 2018. Sea surface temperatures in the equatorial Pacific warmed notably over the past month. The Southern Oscillation Index (SOI) was slightly positive (+0.2) in October 2018.
- This pattern of SST anomalies continues to be consistent with the expected development of El Niño 'Modoki', a non-conventional type where the maximum SST anomaly is located in the central Pacific rather than the eastern Pacific.



Source: NIWA Island Climate Update: November 2018

6. Rainfall Outlooks for NDJ (Joe)

The verification result of **ASO** rainfall forecasts was 8 hits and 5 misses (Heidke score: 0.3065). The stations that hit the forecasts were: Yap, Chuuk, Pohnpei, Kwajalein, Guam, Saipan, Kahului, and Hilo. The 5 missed stations were Kosrae, Majuro, Pago Pago, Lihue, and Honolulu. PEAC forecasts are based on six GCMs and two statistical models.

*(**Note**: Because of missing data, Koror's forecast verification could not be calculated)*

ASO Verification Location	Rainfall Outlook	Final Probs	3 mo Verification		
			% norm	Total (in)	Tercile
Palau					
Koror 7º 22' N, 134º 32' E	Avg.	**35:40:25**	53	21.49	
FSM					
Yap 9º 29' N, 138º 05' E	Avg-below	**35:35:30**	86	35.03	**Below**
Chuuk 7º 28'N, 151º 51'E	Avg-above	**30:35:35**	115	41.54	**Avg.**
Pohnpei 6º 59'N, 158º 12'E	**Above**	**25:35:40**	120	50.62	**Above**
Kosrae 5º 21'N, 162º 57'E	Avg-above	**30:35:35**	90	35.49	**Below**
RMI					
Kwajalein 8º 43'N, 167º 44'E	Avg-above	**30:35:35**	109	34.51	**Avg.**
Majuro 7º 04' N, 171º 17'E	Avg-above	**30:35:35**	87	30.95	**Below**
Guam and CNMI					
Guam 13º 29'N, 144º 48' E	Avg-above	**30:35:35**	139	53.93	**Above**
Saipan 15º 06'N, 145º 48' E	Avg-above	**30:35:35**	**143**	48.43	**Above**
American Samoa					
Pago Pago 14º 20'S, 170º 43'W	Avg.	**30:40:30**	**143**	30.19	**Above**
State of Hawaii					
19.7º - 21.0' N, 155.0º - 159.5' W					
Lihue	Avg.	**30:40:30**	**214**	15.16	**Above**
Honolulu	Avg.	**30:40:30**	**362**	7.42	**Above**
Kahului	Avg-above	**30:35:35**	**469**	5.72	**Above**
Hilo	Avg-above	**30:35:35**	**276**	72.59	**Above**

	Hit
	Miss
Heidke:	**0.3065**
RPSS:	**0.0189**

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

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%	35.83	37.61	33.32	40.96	39.08	31.99	32.51	29.26
near								
66.66%	43.49	44.47	42.92	45.22	44.79	36.25	40.5	34.92
above (>)								

Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
6.24	1.62	0.84	26.06	19.26	37.76
8.43	3.14	2.45	33.29	27.9	40.35

Rainfall in inches

6. Rainfall Outlooks for SON (Con't)

Location	*Rainfall Outlook*	*Final Probabilities*
Palau		
Koror	Avg-below	**35:35:30**
FSM		
Yap	Average	**30:40:30**
Chuuk	Avg-above	**30:35:35**
Pohnpei	Avg-above	**30:35:35**
Kosrae	Average	**30:40:30**
RMI		
Kwajalein	Avg-above	**30:35:35**
Majuro	Average	**30:40:30**
Guam and CNMI		
Guam	Avg-above	**30:35:35**
Saipan	Avg-above	**30:35:35**
American Samoa		
Pago Pago	Average	**30:40:30**
State of Hawaii		
Lihue	**Above**	**25:35:40**
Honolulu	**Above**	**25:35:40**
Kahului	**Above**	**25:30:45**
Hilo	**Above**	**25:30:45**

Note:

Interpretation of tercile probability Example: The Avg-above probability, **30:35:35** forecasts in NDJ season means there is a **35%** chance (probability) for occurrence of excess rainfall during the NDJ season, **35%** chance for occurrence of rainfall within a pattern considered normal during the NDJ season, and **30%** chance for occurrence of deficit rainfall during the NDJ season. *Also note that excess and deficit limit for each of the stations are b different*

7. **Drought monitoring updates** (Richard Heim).

A. End-of-October Monthly Drought Assessment:

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

ii. October was dry at most of the USAPI stations (some stations had less rainfall than the monthly minimum for drought purposes, but even others that were above the minimum were still drier than normal). Dry areas included western & eastern ends of FSM, and parts of RMI. The October monthly analysis (October 31) is consistent with the weekly analyses for October 30 and November 6. Compared to the end-of-September analysis:

a. D0-S began at Kosrae, Majuro, Woleai, & Wotje.
b. D0-S worsened to D1-S at Jaluit.
c. D0-S improved to D-Nothing at Lukonor, Ailinglapalap.
d. D1-S improved to D-Nothing at Nukuoro.
e. Pingelap & Ulithi were missing in October, so they could not be analyzed (Pingelap completely missing, Ulithi missing 23 days).
f. All other stations continued at a D-Nothing classification.

iii. Precipitation ranks for some stations are quite dry:

a. Jaluit: 2nd driest Oct & Jul-Oct (in 35 years of record), and driest Aug-Oct (35 yrs)
b. Woleai: 2nd driest Oct (34 yrs), 7th driest Aug-Oct (30 yrs)
c. Kosrae: 2nd driest Oct (50 yrs), 2nd driest Sep-Oct (44 yrs), 7th driest Jun-Oct (40 yrs)
d. Lukonor: 16th driest Oct (34 yrs), but 4th driest Mar-Oct (22 yrs)
e. Nukuoro: 16th driest Oct (36 yrs), but 3rd driest Aug-Oct (35 yrs) & 4th driest Feb-Oct (34 yrs)
f. Kwajalein: 4th driest Oct (67 yrs), 6th driest Sep-Oct (67 yrs), but wettest Nov-Oct (66 yrs)
g. Majuro: 8th driest Oct (65 yrs), 7th driest Sep-Oct (65 yrs), but 2nd wettest Nov-Oct (64 yrs)
h. Yap: 6th driest Oct (68 yrs), 10th driest Sep-Oct (68 yrs)

B. Current (Weekly) Drought Conditions: The discussion above is the monthly (end of October) analysis. The latest weekly USAPI USDM assessment may show different USDM classifications. The latest weekly USAPI USDM assessment is for November 6 and shows D1-S for Kosrae.

C. October NCEI State of the Climate Drought Report: I will included a discussion of USAPI drought and climate conditions in my October 2018 NCEI SotC Drought & Synoptic reports (which will go online Tuesday).

i. The web page url's:
https://www.ncdc.noaa.gov/sotc/drought/201810#det-reg-pacis-usapi
https://www.ncdc.noaa.gov/sotc/synoptic/201810# usapi-wnp

D. December Schedule: I will be USDM author for the 11/20 and 11/27 USDM. If my travel (to the AGU Fall Meeting) is approved, I probably will not be able to participate in the December 13 PEAC conference call.

E. USAPI USDM Authors:

Currently, the USDM is analyzed for the 50 States and Puerto Rico, and the USAPI USDM is done separately. The USDM authors are planning to revise the USDM web site (https://droughtmonitor.unl.edu/) and process so that two USDM products are produced each week: a CONUS USDM and an OCONUS USDM. The OCONUS USDM would include the USAPI and the US Virgin Islands, and maybe Puerto Rico, Hawaii, and Alaska (although including PR, HI, AK in OCONUS is still being discussed).

i. Ahira Sanchez-Lugo and I (Richard Heim) are current USAPI USDM (OCONUS) authors. Five additional OCONUS authors will be added in the months ahead.

ii. The USDM authors and their principal organizations are currently going through the process of making the USAPI USDM officially operational.

F. Automated Ingest of Daily Rainfall Data:

i. **Caution: NCEI is revamping our entire IT infrastructure. This will probably impact our automated cron programs that run every day, including the USAPI automated ingest program. This will probably happen in early 2019 (January or February). So we will need to watch our processes carefully (like the USAPI automated ingest program) and if they break, then we'll need to fix them quickly**.

ii. Update: Most of the primary stations data are getting into the automated system, but Kwajalein, Pago Pago, Jaluit, and Woleai still are not getting in.

a. From Chip: Kwajalein is in the Super Form in WxCoder III, but it is not in the regular station list. **Question: Can Kwajalein's data be automatically transmitted daily from WxCoder III into the NOAAPort data feed? (**need to find out station I.D. and other info to get it in to the NOAAPort feed**)**

Drought monitoring updates (CON'T)

b. Question: Will the data for Pago Pago be entered into the WxCoder III system?

c. Question: Regarding Jaluit and Woleai, has it been determined yet why their data are not being sent into the NOAAPort data feed?

d. With travel and vacation, I (Richard) fell behind on email. Will go through email from last 4 weeks and add stations to the automated station list which have been requested.

iii. Web interface: url is:

a. https://www.ncdc.noaa.gov/temp-and-precip/drought/usapi-pcp/

b. The "All Indicators" tab is the most used tab by USDM authors: https://www.ncdc.noaa.gov/temp-and-precip/drought/usapi-pcp/all

c. The "Weekly", "Monthly", and "Seasonal" tabs have data tables as well as maps plotting the values.

d. The web page is updated automatically every day by a computer program that automates the ingest and processing of the data. The program runs every morning at 10 a.m. EST; it also sends out an email every day containing daily and weekly rainfall totals for several USAPI stations.

e. Some data on the web page are color coded to indicate wet or dry conditions (weekly and monthly precipitation totals), missing days (grey), and USDM categories (monthly and seasonal rank percentiles).

f. The web page is for internal use by NWS Pacific Island personnel and USDM author personnel. It is not for public release (NCEI does not have the staff to answer questions from the public and media and other users about why there is missing data).

G. USAPI Listserv:

i. NDMC (National Drought Mitigation Center) set up a listserv for communication of the USAPI USDM analyses and discussion, similar to the listservs that were set up for the Mainland and for the U.S. Virgin Islands. **We have been using this for communications, both for sending out the USAPI USDM analyses and it is also for NWS offices to report drought impacts to the authors and rest of the group.** If others want to be added to the listserv, let me (Richard Heim) or Brian Fuchs know and Brian will get them added.

Discussion: Pago Pago was going to be entered into WxCoder III thru Honolulu (check with Kevin Kodama). Guam will check with WRCC on the station code letters for Jaluit & Woleai since that may be why they aren't getting into the NOAAPort feed (what WxCoder III is using may be different from what WRCC is looking for).

Participants:

NWS Climate Services Program Managers (CSPMs): Joe Brinkley

WSO Climate Service Focal Points (CSFPs):

Nover, Sampson (Majuro) (Kosrae) (Palau)

Sanchez (Chuuk) (Yap) Jason (Kwajalein)

Wallace (Pohnpei) Taylor (Pago Pago) Mark/Chip/Brandon B. (Guam & CNMI)

PEAC Principal Research Scientist: Rashed Chowdhury

WERI Scientist: Mark Lander

CPC Forecaster:

WFO Guam : Chip Guard, Clint Simpson

NWS MIC, Honolulu: Christopher Brenchley

NCEI: Richard Heim

Pacific RISA: Krista Jaspers

NWS Hydrologist: Kevin Kodama

***** Next Call– 13 December 2018, 1430 HST (14 December 2018, 0030 GMT)*****