NWS Climate Services

June PEAC Audio Conference Call Summary

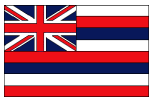
13 June, 1430 HST (14 June 2019, 0030 GMT)

May rainfall totals reported (Joe)

% Normal: blue above normal & red below normal. Departure from normal: blue-above & red-below

	Rainfall	% Norm	Median	Departure	3 Month Total
	Inches	May	Inches	inches	MAM
Koror	6.78	57	11.83	-5.05	19.91
Yap	7.15	91	7.85	-0.70	14.95
Chuuk	4.74	42	11.30	-6.56	25.30
Pohnpei	8.94	45	19.96	-11.02	40.01
Kosrae	26.91	152	17.75	9.16	79.26
Kwajalein	10.71	159	6.72	3.99	13.07
Majuro	16.14	160	10.11	6.03	26.22
Guam NAS	2.61	77	3.40	-0.79	4.57
Saipan	5.78	243	2.38	3.40	7.24
Pago Pago	14.91	154	9.66	5.25	36.55
Lihue	1.86	125	1.49	0.37	5.00
Honolulu	0.30	75	0.40	-0.10	0.58
Kahului	0.89	182	0.49	0.40	1.79
Hilo	3.85	52	7.36	-3.51	22.03

1. Reports from around the Region



Hawaii (Kevin)

Kauai

Rain gages at most of the observation sites on Kauai recorded near to below average totals for the month of May. Above average totals were mainly along the western slopes of the island as a result of the cold front passage on May 4. The U.S. Geological Survey's (USGS) gage on Mount Waialeale had the highest monthly total of 15.54 inches (50 percent of average) and the highest daily total of 4.62 inches on May 2. The overall dry conditions during the month produced the lowest May rainfall totals since 2009 at Mount Waialeale, Kalaheo, and the Wailua UH Experiment Station.

For 2019 through the end of May, most of the rain gages across Kauai had near to below average totals. The low elevation leeward sites had totals less than 50 percent of the year-to-date average. Mount Waialeale had the highest total of 105.70 inches (68 percent of average). This was the second highest year-to-date total in the state.

Oahu

Many of the rainfall totals for the month of May on Oahu were near to above average. On the northwest half of the island, the boost in rainfall was mostly associated with the passage of the cold front on May 4. The southern slopes of Oahu had mostly below average May totals, with the area from Honolulu to Kapolei having amounts at less than 50 percent of average. The highest monthly total was 11.57 inches (67 percent of average) from the USGS' Poamoho Rain Gage No. 1. The highest daily total was 4.91 inches from the Poamoho Experiment Farm on May 4 during the passage of the previously mentioned cold front. This daily total of nearly 5 inches helped push the Poamoho monthly total to its highest May value in a dataset going back to 1991. In contrast, the Palisades gage had its lowest May total since 2009.

Rainfall totals for 2019 through the end of May remained near to below average at most of the gages across Oahu. The Manoa Lyon Arboretum gage had the highest year-to-date total of 63.97 inches (108 percent of average).

Maui

May rainfall totals were near to above average at most of the gages across Maui County. For leeward areas, this is somewhat deceptive since May is one of the driest months of the year so the averages are quite low. As an example, the U.S. Fish and Wildlife site at Kealia Pond National Wildlife Refuge has a May average rainfall value of just 0.33 inches. This site recorded a May 2019 total of only 0.39 inches, but this ends up as 118 percent of average. Of this total, 0.30 inches occurred on May 4 as a result of the out of season cold front passage. Across the county, the USGS' rain gage at West Wailuaiki Stream had the highest monthly total of 12.69 inches (68 percent of average). This gage also had the highest daily total of 4.21 inches on May 2. The gages at Kula Branch Station and Kihei had their highest May totals since 2002. Conversely, the USGS' Puu Kukui gage had its lowest May total since 2009.

Most of the 2019 rainfall totals through the end of May were near to above average at most of the gages across Maui County. West Wailuaiki had the highest year-to-date total of 107. 48 inches (100 percent of average). This was also the highest total statewide.

Big Island

On the windward side of the Big Island, most of the gages from Volcano to Honokaa posted below average rainfall totals for the month of May. On the rest of the island, most of the gages had near to above average rainfall totals. The USGS' Saddle Road Quarry gage had the highest monthly total of 10.67 inches (107 percent of average). The Waiaha gage on the Kona slopes had the highest daily total of 2.86 inches on May 25. Mountain View had its lowest May total since 2007. Glenwood, Piihonua, and Waiakea Uka recorded their lowest May totals since 2009.

Rainfall totals for 2019 through the end of May were near to below average at most of the gages on the Big Island. The USGS' rain gage at Kawainui Stream had the highest year-to-date total of 82.82 inches (122 percent of average).

American Samoa (Chip, Brandon):

American Samoa is influenced by Tropical Wet climate. The month of April and May received 108% and 154% of normal (% of normal and % are synonymously used throughout this call-note) rainfall. Trades are picking up as SPCZ is still weakly active over American Samoa! There are notable inundations in some part of the Island. They had some flush floods too. Model-based PEAC's seasonal climate outlook is now indicating above-average rainfall for JJA with moderate confidence. The sea level stays elevated and it is currently staying very high (+9 inches above normal). Forecasts indicate that it will stay elevated over the next three months. There is indication that the upcoming TC season in American Samoa could be busy (Source: NIWA).

Kwajalein (Clint):

Dry trades remain over Kwajalein Atoll. The atoll experiences a relatively dry windy season from mid-December to mid-May. April and May recorded 22% and 159% of normal rainfall. So, Kwajalein was bit wet in May, but that didn't last long. The sea level is slightly elevated (+4 in). Current model projections show most of the precipitation staying to the north or southwest. Winds during this period will be gentle and generally easterly. PEAC-model forecasts have trended to show below average rainfall and slightly elevated 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)

Majuro (Lee):

Majuro recorded 160% of normal rainfall in May and this downpour made the island wet for some time. But it didn't last long and the Majuro is dry now. However, trades are picking up as ITCZ is still weakly active over Majuro. Current water reserves are

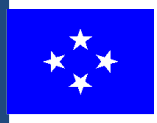
Reports from around the Region (CON'T)

about 65-70% capacity, which has already caused for water rationing on the Island. Currently, there are 4-hrs/week is okay as compared to the average 36 million gallons. There have been several warnings for fire. PEAC-model forecasts have trended average-below rainfall and slightly elevated sea level over the next 3 months, and there is no active TC warning now.

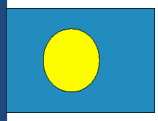
Pohnpei (Wallace):
Pohnpei recorded 45% and 66% of normal rainfall in May and April. The recent tropical depression brought some rain, but this is not enough to change island's dry condition. Currently, the streamflow is less than normal. The southern part of the island is drier than the eastern part. There have been some lightning storms with high surf and minor inundations along the North-East side of the island, but no damage reported, so far. PEAC-model forecasts have trended average rainfall and slightly elevated sea level over the next 3 months.

Kosrae (Wallace):
The main weather feature in Western Micronesia was a near-equatorial trough. The recent tropical depression brought significant amount of rain. Kosrae recorded 168% and 159% of normal rainfall in April and May. The island is wet now. There are reports of several minor flooding and landslides. The overall climate looks like post El Niño type. PEAC-model forecasts have trended average rainfall and slightly elevated sea level over the next 3 months.

Chuuk (Sanchez):
Chuuk has been fairly normal for the last couple of months. However, it recently received only 48% and 42% of normal rainfall in April and May. The island is drying now. PEAC forecasts indicate average rainfall for the island state for the next three months. While there is no operational tide gauge now sited at Chuuk, based on virtual satellite data, it is seen that the mean sea level throughout Chuuk State has been falling over the past few months. However, it is currently elevated. Other than the possible odd lightning strike at Chuuk, no weather related hazards are anticipated now in Western Micronesia.



Yap (Justin):
Yap received 52% and 91% of normal rainfall in April and May. It is therefore bit dry now, including the outer islands. There are two big fires reported in May and the possibility of fire hazards still remains active there. The sea level recorded rise and it is currently below (-4.5 inches) normal. PEAC forecasts are favoring average-below rainfall and below normal sea level in the next three months.



Palau (Mark, Chip):
Palau received 57% of normal rainfall in May and it is bit dry now. Majority of the models' probability forecasts fall into the bottom tercile, so the island is likely be drier than normal. Lately, the troughs and circulations become weaker now. The sea level is staying below normal (-3 inches), which is an indication of El Niño as the sea level in Palau is highly sensitive to ENSO, with El Niño to low sea level and La Niña to high sea level. PEAC forecasts are favoring average rainfall and below normal sea level in the next three months.

Guam and CNMI (Chip, Mark):
The summer monsoon became well established in the western North Pacific Basin, and after a wet month Guam and Saipan are now dry. While Guam received only 77% of normal rainfall in May, Saipan received 243%. However, out of 5.7 inches of rainfall, 4 inches were recorded in one day in Saipan. Therefore, the overall dry condition didn't change in Saipan. There are many brush fires in Guam and Saipan. Grass has turned down to yellow. PEAC forecasts are now indicating average-below rainfall for both Guam and Saipan over the next three months and slightly elevated sea level. Satellite and radar show generally shower and cloud-free conditions across the Marianas with the exception of a few low-level clouds and thin cirrus. Little change is expected in the next month or so as a very dry trade-wind pattern remains entrenched over the Marianas.

2. Tropical Cyclones (Mark)

The WFO Guam in coordination with the UOG PEAC partner recently issued pre-typhoon season tropical cyclone activity outlooks for Guam and CNMI. Based on an the assumption of continued El Niño-related warm SSTs in low latitudes near and east of the International Date Line, there is a possibility for an active season for Micronesia, especially during late September through December. The activity is anticipated to be on-par with that of 2018 in terms of total numbers of tropical systems passing near the islands of Guam and the islands of the CNMI. Any catastrophic strike by a CAT 5 super typhoon is unlikely. However, PEAC is urging the islands to be prepared for what is certain likely to be at least a better-than-even chance (50% chance) for at least minimal typhoon-force winds (65-kt sustained with gusts to 80 kt) to be experienced on any island, with a near certainty (90% chance) that some island will experience at least CAT 1 typhoon conditions. From Chuuk and eastward, the odds are less than those for Guam and the CNMI, but are still elevated above their respective long-term averages.

American Samoa: The 2018/2019 TC season in American Samoa was below average, and certainly quieter than earlier forecast. The cyclone season there is now over, and it is too early at this time to offer a dependable outlook for the upcoming 2019/2020 TC season.

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

Tide Gauge stations	Seasonal Forecasts JJA (mean[1]) (ano)	SD of MAM (mean)	Monthly mean[1] anomaly Observed rise/fall Mar/ 2019	Apr/ 2019	May/ 2019	Current State/ Trend MAM 2019	Seasonal Fore-casts JJA (max[2]) (ano.)	SD of MAM (max)	Monthly max[2] anomaly Observed rise/fall Mar/ 2019	Apr/ 2019	May/ 2019
Marianas, Guam	+3	3.9	+1	+2	+5	Above	+19	4.0	**+16**	**+15**	**+18**
Malakal, Palau	-2	4.2	-2	-3	-3	**Below**	+36	4.3	+37	+33	+34
Yap, FSM	-2	4.5	**-7**	**-4.5**	**0**	**Below**	+30	5.0	+23	+25	+27
Chuuk, FSM***	+2	*	**0**	**+1**	**+4**	Normal	+29				
Pohnpei, FSM	+2	2.5	**0**	**+4**	**	Above	+32	2.9	**+25**	**+30**	**
Kapingamarangi	+2	**	**	**	**	**	**	**	**+27**	**+27**	**+34**
Majuro, RMI	+2	2.0	+3	**	**	Above	+40	3.0	+45	**	**
Kwajalein, RMI	+2	2.6	+2	+4	+4	Above	+40	3.3	+44	+42	+38
Pago Pago*	+6 [+10]	4.2	+7 [+12]	+9 [+14]	+9 [+14]	**Above**	(+30) [+35]	4.8	+39	+35	+35
Honolulu	+2	1.7	0	+2	+3	Normal	+21	1.9	+17	+19	+22
Hilo	+2	1.9	**+1**	**+4**	**+4**	Above	+26	2.4	+20	+24	+30

+/- 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: Since late October, the tropical Pacific Ocean surface temperature has maintained levels indicative of borderline to weak El Niño. However, although some atmospheric features have responded to the warmed ocean, others have shown only weak or short-lived responses. For example, reduced low-level trade winds across the tropical Pacific have been observed sporadically, and the pattern of cloudiness and rainfall resembled the pattern expected with El Niño only during early February. Models and expert opinion suggest a continuation of warm-neutral to weak El Niño conditions through July of 2019. Many models now suggest a strengthening of El Niño conditions toward the middle of the year, while a sizable minority does not predict new El Niño development. *Currently sea level in Palau is 3 inches below normal, which is an indication of El Niño as the sea level in Palau is highly sensitive to ENSO, with El Niño to low sea level and La Niña to high sea level.*

The recent variability of sea level may be explained as WP El Niño, the positive sea level anomaly is located over/or near the central Pacific and maximum near 160^{0}E-180 (i.e., Pohnpei, Kwajalein, and Majuro). The negative SLA is located near 130^{0}E-150^{0}E (i.e., Guam, Koror, Yap, and Chuuk) (also see Kug, J.-S., et al. (2009).

Impacts: T*here is no noticeable inundation in low-lying atolls and there is no report for damage, so far.*

Forecasts for JJA: PEAC-CCA Statistical model is predicting **near normal to** below-normal sea level to the north Pacific islands (***Koror, Yap, and Chuuk)***. Other FSM stations (Chuuk, Pohnpei) and RMI's stations are likely to stay slightly higher than normal. In Hawaii, both Honolulu and Hilo are likely to be near normal.

Kug, J.-S., et al. (2009). Two types of El Niño events: Cold tongue El Niño and warm pool El Niño. J. Climate, 22, 1499–1515 (available @ https://journals.ametsoc.org/doi/pdf/10.1175/2008JCLI2624.1).

Chowdhury M. R., Chu P-S, and Guard C. (2014): An Improved Sea Level Forecasting Scheme for Hazards Management in the U.S.-Affiliated Pacific Islands. *Int. J. Climatology* 6, 2320-2329.

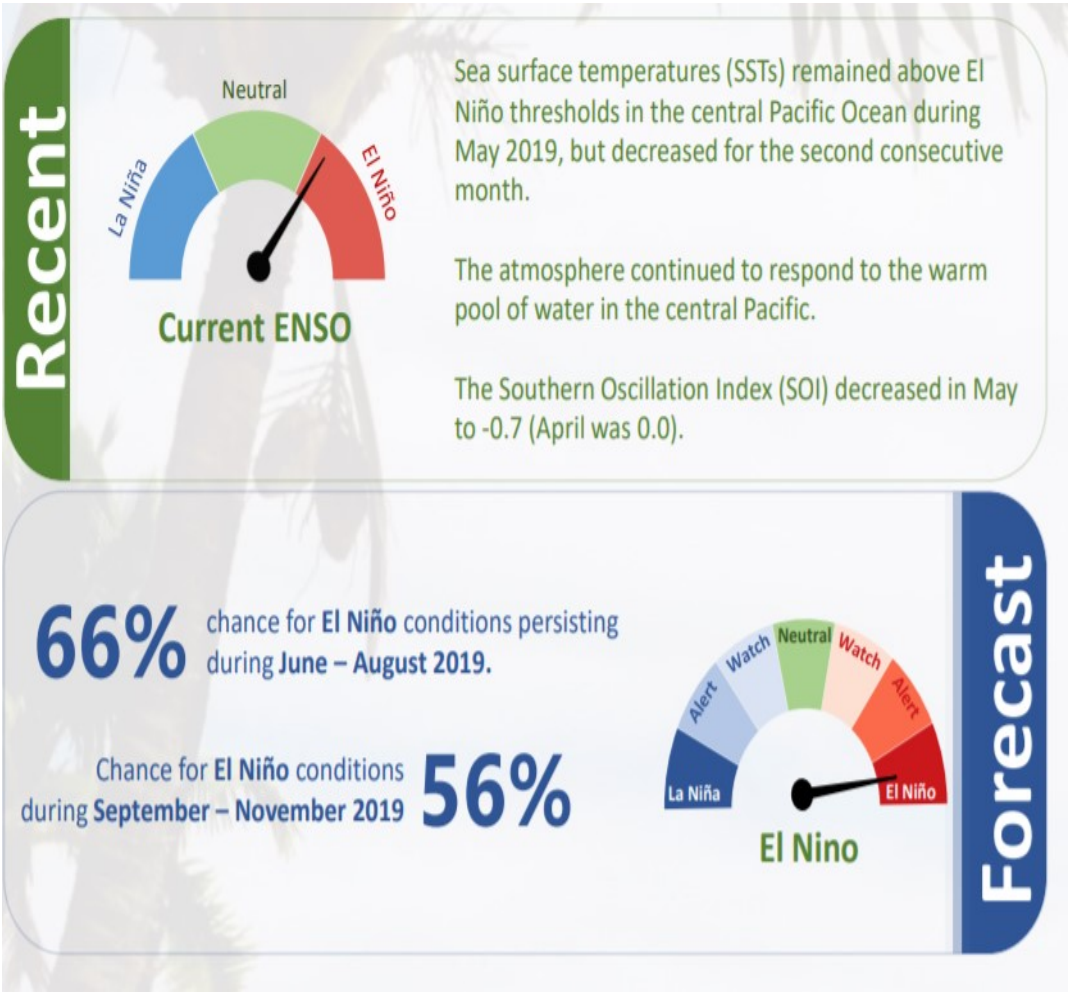
4. Current State of ENSO and predictions: (Dan/Rashed) **ENSO Alert System Status: El Niño Advisory**

(13 June 2019)

Synopsis: El Niño is predicted to persist through the Northern Hemisphere summer 2019 (66% chance), with lower odds of continuing through the fall and winter (50-55% chance).

During May, El Niño was reflected in the continued presence of above-average sea surface temperatures (SSTs) across most of the equatorial Pacific Ocean. The latest weekly ENSO indices indicate the largest positive SST anomalies were within the central Pacific (+1.1°C in Niño-4 and +0.9°C in Niño-3.4) with smaller departures in the Niño-3 and Niño-1+2 regions. Upper-ocean sub-surface temperatures (averaged across 180°-100°W) were nearly average at the start of May, but positive anomalies increased toward the end of the month in association with a downwelling Kelvin wave. Thus, anomalies remained positive at depth in the central equatorial Pacific Ocean, with negative anomalies evident in the eastern Pacific. Suppressed tropical convection continued over Indonesia, while weak, enhanced convection persisted near the Date Line. Low-level wind anomalies were westerly over the western tropical Pacific Ocean, and upper-level wind anomalies were easterly over the western and east-central Pacific. Overall, oceanic and atmospheric conditions were consistent with El Niño.

The combined averages in the IRI/CPC plume predict El Niño to continue into Northern Hemisphere winter 2019-20, but individual models span ENSO-neutral to El Niño outcomes (generally +0.0°C to +1.0°C). The forecast consensus reflects this uncertainty, with slightly lower chances for El Niño compared to the previous month. Ongoing sub-seasonal variability within the tropical Pacific contributes to an overall murky picture, but the current downwelling oceanic Kelvin wave should fuel the persistence of El Niño at least in the short-term. In summary, El Niño is predicted to persist through the Northern Hemisphere summer 2019 (66% chance), with lower odds of continuing through the fall and winter. A snapshot of monthly regional summary of 'ENSO Watch' in the Pacific Islands is also provided below.



Source: **NIWA Island Climate Update: June 2019** (https://www.niwa.co.nz/sites/niwa.co.nz/files/ICU_JJA_2019.pdf)

5. Rainfall Verification and Outlooks for JJA (Rashed/Joe)

The verification result of **MAM** rainfall forecasts was 12 hits and 2 misses (Heidke score: 0.4479). The two stations we missed were: Yap in FSM and Majuro in RMI.

MAM Verification Location	Rainfall Outlook	Final Probs	3 mo Verification		
			% norm	Total (in)	Tercile
Palau					
Koror 7º 22' N, 134º 32' E	**Below**	**40:30:25**	75	19.91	**Below**
FSM					
Yap 9º 29' N, 138º 05' E	**Below**	**40:30:25**	83	14.95	**Avg.**
Chuuk 7º 28'N, 151º 51'E	Avg-below	**35:35:30**	79	25.30	**Below**
Pohnpei 6º 59'N, 158º 12'E	Avg-below	**35:35:30**	78	40.01	**Below**
Kosrae 5º 21'N, 162º 57'E	Avg-above	**30:35:35**	**154**	79.26	**Above**
RMI					
Kwajalein 8º 43'N, 167º 44'E	Avg-below	**35:35:30**	91	13.07	**Avg.**
Majuro 7º 04' N, 171º 17'E	**Above**	**25:30:45**	100	26.22	**Avg.**
Guam and CNMI					
Guam 13º 29'N, 144º 48' E	Avg-below	**35:35:30**	116	4.57	**Below**
Saipan 15º 06'N, 145º 48' E	Avg-below	**35:35:30**	**42**	7.24	**Avg.**
American Samoa					
Pago Pago 14º 20'S, 170º 43'W	Avg-above	**30:35:35**	123	36.55	**Avg.**
State of Hawaii					
19.7º - 21.0' N, 155.0º - 159.5' W					
Lihue	Avg-below	**35:35:30**	83	5.00	**Below**
Honolulu	Avg-below	**35:35:30**	**34**	0.58	**Below**
Kahului	Avg-below	**35:35:30**	**55**	1.79	**Below**
Hilo	Avg-below	**35:35:30**	81	22.03	**Below**

	Hit
	Miss
Heidke:	**0.4479**
RPSS:	**0.0501**

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

	Koror	Yap	Chuuk	Pohnpei	Guam	Saipan	Majuro	Kwaj
below (<)								
33.33%	30.889	14.74	30.3	46.13	7.61	5.88	21.02	9.74
near								
66.66%	38.456	22.41	36.94	58.61	11.51	8.02	32.44	21.13
above (>)								

Lihue	Honolulu	Kahului	Hilo	Pago Pago	Kosrae
5.32	1.83	2.45	22.5	27.97	51
7.98	3.05	4.64	34	38.33	55.49

Rainfall in inches

5. Rainfall Verification and Outlooks for JJA (Con't)

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

Note:

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

Drought monitoring updates.

End-of-May Monthly Drought Assessment:

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

ii. Like the last 3 months, May was dry (less than the 4- or 8-inch monthly minimum needed to meet most water needs) in northern and western portions of Micronesia, but wet in southeastern FSM and southern RMI (more than 8 inches). Drought Information Statements issued by Guam. The end-of-May monthly analysis (May 31) is consistent with the weekly analyses for May 28 and June 4. Compared to the end-of-April analysis:

A. Drought worsened in the FSM:
1. D2-S worsened to D3-S at Yap
2. Chuuk went from D-Nothing to D2-S
3. Lukunor and Nukuoro went from D-Nothing to D0-S
4. Woleai was missing last month, but was analyzed as D2-S this month

B. Palau and Fananu continued at D2-S; Rota and Guam continued at D3-S; Utirik continued at D4-SL; Wotje went from D4-S to D4-SL; Jaluit continued at D0-S

C. Where it was wet:
1. Mili improved from D0-S to D-Nothing
2. Majuro improved from D3-S to D0-S
3. Kwajalein improved from D3-S to D1-S
4. Ailinglapalap improved from D1-S to D0-S
5. D-Nothing continued at Pohnpei, Pingelap, Kosrae, Kapingamarangi, and Pago Pago
6. Convective rain improved Saipan from D4-S to D3-L

D. Ulithi was missing for the last several months, so could not be analyzed for the month.

iii. Some dry precipitation ranks:

A. Woleai: driest May (out of 37 years of data), 2nd driest Apr-May (37 yrs), 6th driest June-May (22 yrs)
B. Nukuoro: driest May (36 yrs), 6th driest Dec-May (35 yrs), 4th driest June-May (33 yrs)
C. Lukonor: 2nd driest May (35 yrs), 7th driest June-May (22 yrs)
D. Chuuk: 2nd driest May & Apr-May (68 yrs), 9th driest March-May (68 yrs)
E. Pohnpei: 3rd driest May & 5th driest Apr-May (68 yrs)
F. Koror: 5th driest May & 6th driest Feb-May (68 yrs)
G. Guam: 6th driest March-May (63 yrs)
H. Ailinglapalap: 7th driest Apr-May (36 yrs), 6th driest June-May (33 yrs)
I. Jaluit: 7th driest Apr-May & Jan-May (36 yrs)
J. Utirik: driest March-May, Feb-May, & Jan-May (12 yrs)
K. Wotje: 5th driest Feb-May & Jan-May (35 yrs)
L. Saipan: 4th wettest May, but 8th driest Oct-May (30 yrs)

B. Current (Weekly) Drought Conditions: The discussion above is the monthly (end of May) analysis. The latest weekly USAPI USDM assessment may show different USDM classifications. The latest weekly USAPI USDM assessment is for June 11.

i. For June 11, differences include:

A. Improvements: Guam is D2-S, Palau and Woleai are D1-S, Lukunor and Nukuoro are D-Nothing

C. May 2019 NCEI State of the Climate Drought Reports: I included a discussion of USAPI drought and climate conditions in my May 2019 NCEI SotC Drought & Synoptic reports (which went online Tuesday).

i. The web page url's are:

A. https://www.ncdc.noaa.gov/sotc/drought/201905#det-reg-pacis-usapi
B. https://www.ncdc.noaa.gov/sotc/synoptic/201905#usapi-wnp

D. USAPI USDM Authors:

i. The OCONUS (USAPI) USDM became an operational product at the beginning of March, with authorship rotating amongst the NCEI, NDMC, USDA, & CPC authors.

ii. There are 7 USAPI USDM (OCONUS) authors: Ahira Sanchez-Lugo and myself (Richard Heim) from NCEI; Curtis Riganti, Claire Shield, and Deb Bathke from NDMC; Brad Rippey (from USDA); Anthony Artusa (from CPC).

A. Claire, Curtis, & Brad have authored besides Ahira & me.

iii. With the June 4 map, the U.S. Virgin Islands have been added to the USDM product suite. The USDM web site (https://droughtmonitor.unl.edu/) has been revised so that two USDM products (sets of maps) are produced each week: a CONUS USDM and an OCONUS USDM. The OCONUS USDM includes the USAPI and the US Virgin Islands (dots), while the CONUS USDM is what has been done for years (50 States & Puerto Rico) (polygon shapefiles).

Drought monitoring updates (CON'T).

E. Automated Ingest of Daily Rainfall Data:

i. Automated Program: I modified the automated program that ingests the USAPI station daily data to send out a master file of the current data to the authors, in case NCEI's web pages go down because of a future government shut down or for other reasons.

ii. **Updates and Fixes: I've begun to research how to address several updates to the automated data ingest system. This is a list of things I'll be doing or looking at in the weeks ahead:** ***(with travel, 2 USDM author rotations, and deadlines for writing the NCEI FY20 drought product plan and the TOR for an RFP for a North America Committee for Environmental Cooperation project, I have had no time in May to work on these)***

A. Follow up on why Jaluit, Woleai, & Kwajalein are not getting into the automated process.

1. 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)

2. Question: Regarding Jaluit and Woleai, has it been determined yet why their data are not being sent into the NOAAPort data feed? -- From the November call: 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) – status?

B. Find out why Saipan's ASOS data are being transmitted and getting into our automated process instead of the manual gauge WxCoder III data.

C. Add new stations to the automated process (Capital Hill 1, Nimitz Hill, Palau International Airport, Mwoakilloa). I need to identify the WxCoder I.D. call sign and the COOP station numbers for these stations, then find them in our (NCEI) metadata base, then determine if they are being captured from the NOAAPort feed.

D. Follow-up with Bill Ward about good synoptic observations from the outer islands that we could be using (want to use) in this process (get into automated data ingest system and use for USAPI USDM analysis); let's (Bill and me and Chip) schedule a conference call to discuss how to get these data included.

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:

1. 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).

F. 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.**

ii. If others want to be added to the listserv, let me (Richard Heim) or Brian Fuchs know and Brian will get them added..

iii. There is also a DMUpdate Listserver for those who just want to know when the new USDM maps are released.

Participants:

NWS Climate Services Program Managers (CSPMs): Joe Brinkley

WSO Climate Service Focal Points (CSFPs):

Lee, Nover (Majuro)
Wallace (Kosrae)
Mark, Chip (Palau)
(Guam & CNMI)

Sanchez (Chuuk)
Matt, Justin (Yap)
Clint (Kwajalein)

Wallace (Pohnpei)
(Pago Pago)
Mark/Chip/Brandon/Clint Mark, Chip

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

Additional Attendees:

***** Next Call– 11 July 2019, 1430 HST (12 July 2019, 0030 GMT)*****