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http://www.prh.noaa.gov/peac

CURRENT CONDITIONS

The most noteworthy aspects of the recent weather and climate of the U.S.-affiliated Pacific Islands (US-API) includes abundant rainfall at most locations (See rain charts Fig. 1 and Fig. 2), falling sea level across most of Micronesia (with the largest fall noted in Palau), and two early season typhoons forming in the vicinity of Chuuk and moving northward past Guam and Saipan. Rainfall at some atolls of the Republic of the Marshall Islands (RMI) during April 2014 set all-time records (see the RMI Local Variability Summary for more details). The fall of sea level was substantial at some locations, particularly at Palau where a 9-inch drop was noted during March into April. Two typhoons formed within the boundaries of Micronesia during the early season of 2014, with both passing northward just to the east of Guam and Saipan, and during April 2014, a weak tropical cyclone passed over Palau with little impact.

During January through April 2014, the atmosphere and ocean exhibited features suggesting the impending onset of an El Niño event. A special PEAC bulletin released on April 24, 2014 provides a detailed summary and description of these indicators. In its early May monthly ENSO discussion, the U.S. Climate Prediction Center placed the Pacific Basin into an El Niño watch. An abbreviated summary of atmospheric and oceanic indicators of the impending El Niño includes:

- A high number of early season tropical cyclones in the western North Pacific;
- An eastward displacement of the season's early tropical cyclones;
- Extended periods of persistent westerly winds at equatorial latitudes;
- An eastward displacement of westerly winds at equatorial latitudes;
- A large area of enhanced convection at low latitude near the International Date Line;
- Very heavy rainfall at some atolls of the RMI; and
- An intense burst of typhoon activity from mid-September through early November 2013 (a possible precursor to El Niño);
- A major warming of the subsurface ocean temperatures across a large swath of the equatorial central and eastern Pacific (Fig. 3);
- A substantial fall of sea level in the western portion of Micronesia including Palau and Guam; and
- A substantial rise of sea level across the central and eastern equatorial Pacific

On the 3rd of March 2014, a very damaging inundation event occurred in the Marshall Islands. An extra-tropical cyclone well to the north of the RMI generated a large swell that moved southward. While traversing the RMI, this remotely generated swell produced large waves with severe inundation on the atolls of Majuro, Arno, Mili and Kili, and also further south on some of the western atolls of Kiribati. The high wave event is described more fully in the Local Summary section for RMI.

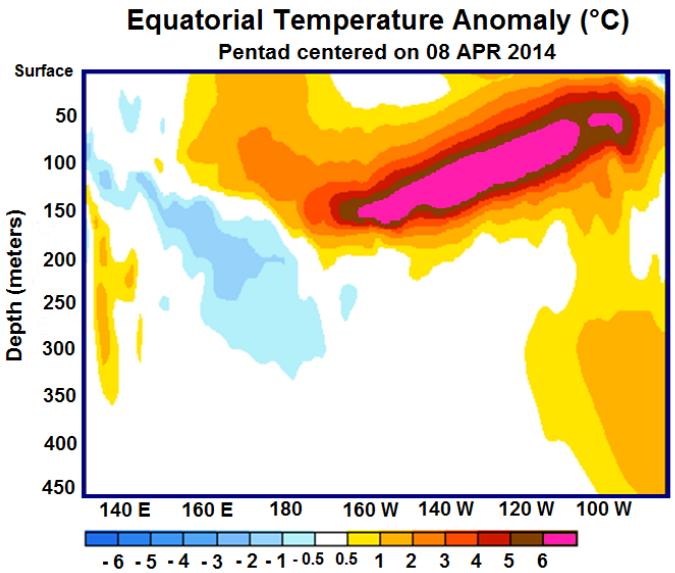


Figure 3. Subsurface ocean temperature anomaly (°C) along the equator from 140° E to 100° W longitude. A large area of very warm subsurface water is found in the eastern equatorial Pacific. This warmth rivals the magnitude of the warmth seen during the onset of the 1997 El Niño. Adapted from CPC chart for the PEAC special bulletin of April 2014 (http://www.prh.noaa.gov/peac/peu/2014_SB1/PEU_v20_SB1.pdf). Subsequent cross-sections of subsurface ocean temperature show a slight easing of these large warm anomalies, suggesting that some additional forcing is needed to bring on the full development of El Niño over the next few months.

SEA SURFACE TEMPERATURES

During March the ENSO-neutral status persisted. A significant downwelling oceanic Kelvin wave greatly increased the oceanic heat content to the largest March value recorded. During April weak low-level westerly wind anomalies were observed over the far western Pacific, mean while upper level easterlies dominated over the greater Pacific region. From May into June above average sea surface temperatures (SSTs) persisted over the equatorial Pacific. Current conditions reside in a state of ENSO-neutral however all Niño indices have been increasing over the course of the month with latest weekly values of between 0.6°C and 1.6°C. There have been no positive atmospheric responses to the SSTs, although the general trend is an evolution towards an El Niño.

SOUTHERN OSCILLATION INDEX

The 3-month average of the Southern Oscillation Index for the 1st Quarter of 2014 including April was 0.5, with monthly values of 1.4, 0.1, -0.9 and 0.8 for the months of January, February, March and April 2014 respectively. The Madden-Julian Oscillation (MJO) contributed to increased atmospheric variability over the tropical Pacific during January, February, and March of this year.

Normally, positive SOI values in excess of +1.0 are associated with La Niña conditions, and negative SOI values below -1.0 are associated with El Niño conditions. Low SOI values suggest a weak coupling between the ocean and the atmosphere. The SOI is an index representing the normalized sea-level pressure difference between Darwin, Australia and Tahiti.

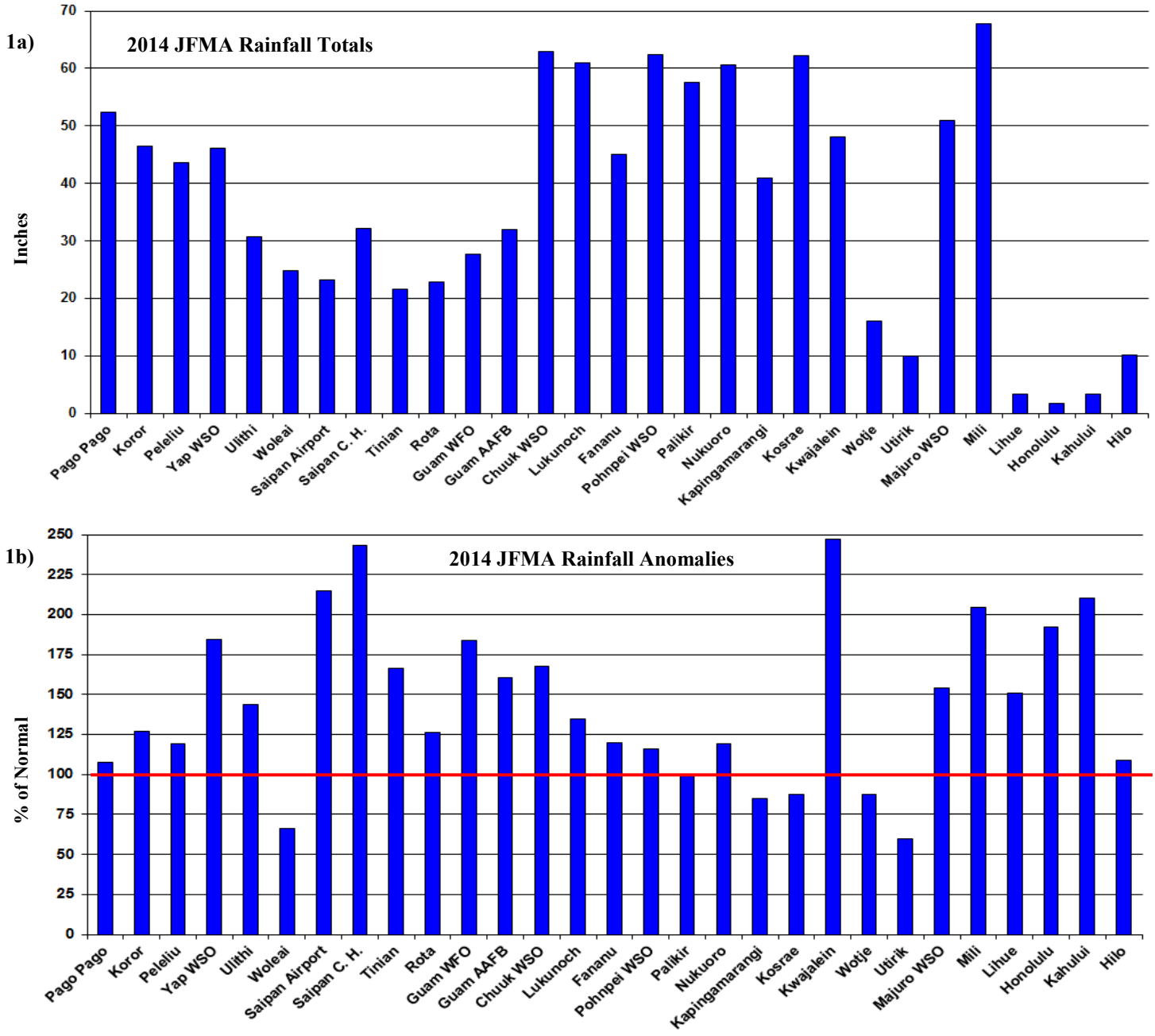


Figure 1, 2014 January, February, March, April (JFMA) totals (a) in inches and (b) anomalies (expressed as % of average). In 1b, solid line indicates normal rainfall (100%).

TROPICAL CYCLONE

The PEAC archives western North Pacific tropical cyclone numbers, track coordinates, and 1-minute average maximum sustained wind taken from operational warnings issued by the Joint Typhoon Warning Center (JTWC) of the U. S. Air Force and Navy, located at Pearl Harbor, Hawaii. Western North Pacific tropical cyclone names are obtained from warnings issued by the Japan Meteorological Agency (JMA), which is the World Meteorological Organization's Regional Specialized Meteorological Center (RSMC) for the western North Pacific basin. The PEAC archives South Pacific tropical cyclone names, track coordinates, central pressure, and 10-minute average maximum sustained wind estimates from advisories issued by the Tropical Cyclone Warning Centers at Brisbane, Nadi, and Wellington. The numbering scheme and the 1-minute average maximum sustained wind estimates are taken from warnings issued by the JTWC. There are sometimes differences in the statistics (e.g., storm maximum intensity) for a given tropical cyclone among the agencies that are noted in this summary.

Through mid-May of 2014, the JTWC numbered six significant tropical cyclones. Five of these six were named by the JMA. Two of the six (Faxai and Tapah) became typhoons. Faxai and Tapah had similar life histories with each forming northwest of Chuuk and later moving north and passing to the east of Guam and Saipan. The 2014 early season tropical cyclones and other tropical disturbances contributed to episodes of heavy rainfall throughout Micronesia. An abundance of early season tropical cyclones is a typical response to El Niño onset in the western North Pacific. Eastward displacement of tropical cyclones during El Niño greatly elevates the risk of typhoons throughout Micronesia during an El Niño year. Specific island risks are found in their respective local variability summaries.

Three organizations produce seasonal outlooks for tropical cyclone activity in the western North Pacific that are routinely used by the PEAC Center for guidance on the upcoming typhoon season: (1) The Guam Weather Forecast Office (WFO), (2) The City University of Hong Kong Laboratory for Atmospheric Research, and (3) The Benfield Hazard Research Centre Tropical Storm Risk (TSR) research group1. The WFO Guam and the TSR group have released a forecast at the time of this writing. Both forecasts calls for cyclone activity to be above normal during 2014 for most aggregate statistics (e.g. annual number of all categories of cyclones, annual number of tropical storms and annual number of typhoons). The Hong Kong forecast for 2014 will likely not be issued as their prediction scheme is undergoing revision because of unacceptable over-prediction of cyclone activity during recent years of an unusually low cyclone activity.

The Southern Hemisphere cyclone season of 2013-2014 was relatively quiet, with the JTWC numbering 24 significant tropical cyclones in the entire region from the south Indian Ocean eastward into the South Pacific. The JTWC average annual number of Southern Hemisphere tropical cyclones is 27. It was particularly quiet in the South Pacific east of the 180° meridian, with only three named cyclones. Two of them (Ian and Mike) formed east of 180°, and Cyclone Kofi moved there from west of the Fiji Islands. No tropical cyclone (to-date) adversely affected American Samoa during the 2013-2014 cyclone season (which ends June 30, 2014). No further tropical cyclone activity is anticipated for American Samoa through June 2014 to finish-out the current cyclone season.

PEAC Tropical Cyclone Assessment

Western North Pacific and American Samoa

Based on available guidance1 and the forecast behavior of ENSO, the PEAC tropical cyclone outlook for the upcoming western North Pacific typhoon season of 2014 is for above normal activity, considering: (1) the high activity of the season to-date; (2) the movement of the climate system toward El Niño; and, (3) the available guidance noted above. There may be a notable eastward shift of tropical cyclone activity for all of 2014 contingent on the establishment of El Niño. An active typhoon season appears to be in store for Micronesia. Please see the local variability summaries for the anticipated typhoon risk for each island group. High cyclone activity could spill over into American Samoa during their next (2014-2015) cyclone season.

On 21 May 2014, NOAA's Central Pacific Hurricane Center released the following outlook for the 2014 Central Pacific Hurricane season:

"... climate conditions point to a near-normal or above-normal season in the Central Pacific Basin this year. For 2014, the outlook calls for a 40% chance of a near-normal season, a 40% chance of an above-normal season, and a 20% chance of a below-normal season. We expect 4 to 7 tropical cyclones to affect the central Pacific this season. An average season has 4-5 tropical cyclones, which include tropical depressions, tropical storms, and hurricanes."

"This outlook is based upon the expectation of El Niño developing during the 2014 hurricane season. El Niño decreases the vertical wind shear over the tropical central Pacific, favoring the development of more and stronger tropical cyclones. Since 1995 the central Pacific has been in an era of low activity for hurricanes, but this pattern will be offset in 2014 by the impacts of El Niño."

Higher-than normal cyclone activity in the central Pacific region has two sources: (1) hurricanes moving into the central Pacific region from the eastern North Pacific, and (2) enhanced formation in the region itself. During El Niño, there is an enhancement of central Pacific cyclones form both sources. Westward moving cyclones of the eastern North Pacific have extended survival rates, and there are more in-situ formations.

[1]The PEAC tropical cyclone forecasts for 2014 are based on forecasts of the status of ENSO and input from four seasonal outlooks for tropical cyclone activity in the western North Pacific basin: (1) A statistical outlook prepared by Paul Stanko (a lead forecaster at the Guam WFO), (2) The City University of Hong Kong Laboratory for Atmospheric Research, under the direction of Dr. J. C-L. Chan, (3) The Benfield Hazard Research Centre, University College London, Tropical Storm Risk (TSR) research group, UK, led by Dr Adam Lea and Professor Mark Saunders, and (4) the Central Pacific Hurricane Center (contact: Mike Cantin, 808-973-5275).

LOCAL SUMMARY AND FORECAST

American Samoa: The rainy season in American Samoa spans the months of November through April, with the heart of the rainy season occurring in the three-month period of December through February. The dry season spans the months of May through October. Total rainfall during the 2013-2014 rainy season at American Samoa was near normal, but with high month-to-month variability. January 2014 was particularly wet after a dry 4th Quarter of 2013. Heavy rainfall in late December 2013 into early January 2014 prompted flash flood warnings nearly every day, with reports of land slides and rock falls. March 2014 was dry, but heavy rains returned in April. The total rainfall at Pago Pago during the first four months of 2014 was 52.43 inches (108%). The mean sea level at Pago Pago has been higher than average for many months, but in the past two months began to fall as the climate of the Pacific Basin appears to be transitioning from ENSO-Neutral to El Niño. Tropical cyclone activity in the South Pacific was well below normal for the 2013-2014 cyclone season, with only one cyclone (Ian– TC 08P) developing near American Samoa. Ian severely impacted islands of the Kingdom of Tonga, but left American Samoa unscathed. A few weak tropical depressions and one other weak named cyclone (Mike–20P) were identified and tracked by the Regional Specialized Meteorological Center (RSMC)—Nadi (Fiji) while they drifted into areas south and east of American Samoa without notable impact.

American Samoa Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Pago Pago (WSO)	**Inches**	19.54	11.65	6.95	14.29	52.43
	% Avg	155%	91%	62%	119%	108%

Climate Outlook: American Samoa is now entering its dry season. Climate models and simple persistence of current conditions favor a continuation of near normal rainfall over the next three-month period. The next rainy season (Oct 2014 - Apr 2015) is anticipated to have a normal onset, but with above-average rainfall. If the climate system transitions to El Niño over the next few months, tropical cyclone activity could be drawn eastward into the South Pacific east of the 180° meridian. This would elevate the risk of tropical cyclone development near American Samoa beginning in November 2014.

Predicted rainfall for American Samoa from June 2014 through Dec 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]
June - September 2014 (Heart of Dry Season)	**100%**
October - December 2014 (Onset of Next Rainy Season)	**120%**
January - March 2015 (Heart of Next Rainy Season)	**120%**
April - June 2015 (Onset of Next Dry Season)	**80%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

LOCAL SUMMARY AND FORECAST

Guam/CNMI: Throughout Guam and the CNMI, the rainfall during the first four months of 2014 was generally well above average, largely a result of very heavy rainfall during January. During 21-22 January 2014, there was an extreme 24-hour rainfall event on Guam, with widespread heavy rainfall of 5 to 6 inches experienced across the island. This heavy rainfall event was accompanied by a relatively rare (for the time of year) display of lightning. This event was caused by a northward moving tropical disturbance that had been well-forecast by the numerical guidance. After the heavy rains of January, the monthly amounts of rainfall on Guam and in the CNMI fell generally to at-or-below 4 inches. At 4 inches per month or lower, streamflow lessens and vegetation begins to dry, especially the open grasslands. Wildfires become common after an inch or less of rainfall is experienced over two weeks. Two typhoons passed near Guam and Saipan: the first – Faxai (03W) – moved northward with a closest point of approach (CPA) to Guam about 300nm east on the 3rd of March; the second – Tapah (06W)– also moved northward with a closest point of approach to Guam about 150nm east on the 28th of April. Both of these typhoons were of small size, and no high winds or dangerous surf was noted on Guam or in the CNMI.

Guam and CNMI Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
GUAM						
GIA (WFO)	**Inches**	16.89	5.14	2.91	2.74	27.68
	% Norm	380%	137%	98%	70%	184%
AAFB	**Inches**	19.69	3.36	4.86	3.97	31.88
	% Norm	345%	64%	119%	82%	160%
Ugum Watershed	**Inches**	13.39	3.78	2.36	5.94	25.47
	% Norm	235%	72%	58%	122%	128%
Ypapao (Dededo)	**Inches**	15.05	6.57	3.18	3.34	28.14
	% Norm	264%	126%	78%	69%	142%
Sinajaña	**Inches**	17.17	4.91	2.46	3.14	27.68
	% Norm	386%	131%	83%	80%	184%
CNMI						
Saipan Intl. Airport	**Inches**	13.81	1.88	3.16	4.41	23.26
	% Norm	432%	78%	158%	158%	224%
Capitol Hill	**Inches**	19.36	4.35	3.02	5.36	32.09
	% Norm	484%	145%	121%	153%	247%
Tinian Airport	**Inches**	11.46	2.28	2.56	5.36	21.66
	% Norm	17%	97%	53%	61%	167%
Rota Airport	**Inches**	12.29	3.58	3.60	3.43	22.90
	% Norm	233%	77%	98%	76%	126%

Climate Outlook: The months of May, June and early July are usually considered the latter part of the dry season on Guam and in the CNMI, with persistent heavy rains arriving in mid to

LOCAL SUMMARY AND FORECAST

late July. Occasionally, early season typhoons, tropical disturbances and deep convection associated with cyclonic low pressure cells in the Tropical Upper Tropospheric Trough (TUTT) bring abundant rains in the late spring. The nearly 40 inches of rainfall on Guam during June 2004 is a good example. The onset of El Niño tends to enhance rainfall in the late spring on Guam and in the CNMI through enhanced tropical cyclone activity and other forms of deep convection. Based on an expected onset of El Niño conditions during the summer months above normal rainfall over the next three to four months on Guam and in the CNMI is anticipated. During El Niño, the monsoon trough is very active across Micronesia with an abundance of tropical disturbances and an elevated risk of tropical cyclone formation. The risk of a typhoon affecting Guam or any of the islands of the CNMI is greatly increased during El Niño, with the risk as high as 70% that at least one island in the CNMI will be adversely affected by a typhoon and nearly 50% that Guam would be adversely affected in some way. With El Niño, the Mariana Islands could see several typhoon threats and several monsoon surges. The risk of a typhoon is greatest in the months of October through January. In the longer term, the other risk posed by El Niño is drought. El Niño-related drought typically occurs during the dry season that follows the El Niño year.

Predicted rainfall for the Mariana Islands from June 2014 through June 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]	
	Guam/Rota	Saipan/Tinian
June – July 2014 (Onset of Rainy Season)	**120%**	**120%**
August – September2014 (Heart of Rainy Season)	**120%**	**120%**
October - November 2014 (End of Rainy Season)	**95%***	**95%***
December - January 2015 (Onset of Next Dry Season)	**85%***	**85%***
February - June 2015 (Heart of Next Dry Season)	**75%****	**75%****

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.
* A typhoon occurrence could push these rainfall totals higher
** The severity of dryness depends on the strength of El Niño

Federated States of Micronesia

Yap State: The period of February through April is typically the heart of the dry season for Yap Island and the atolls of Yap State. With few exceptions, total rainfall amounts for the first four months of 2014 were well above normal. January 2014 was a particularly wet month across Yap Island and the outer atolls to the northeast. January rainfall totals exceeded 20 inches as most Yap Island locations – a wet month even in the rainy season! Conditions were much drier at Woleai to the south of Yap Island where the January and the 4-month total rainfall were roughly half the rainfall at Yap Island.

LOCAL SUMMARY AND FORECAST

The monsoon trough was north of its normal position for much of the time during January through April providing a focus for heavy rainfall on Yap Island. Yap State received some heavy rain showers from the peripheral rain bands of tropical cyclones Kajiki (02W), TD 04W and Peipah (05W) in addition to episodes of heavy showers form several other tropical disturbances passing westward.

Yap State Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Yap Island						
Yap WSO	**Inches**	21.74	4.72	6.99	12.72	46.17
	% Avg	297%	79%	117%	221%	184%
Dugor	**Inches**	20.45**	4.76	7.94	9.61	42.76
	% WSO*	279%	80%	133%	167%	170%
Gilman	**Inches**	6.44	2.92	3.14	2.74	15.24
	% WSO*	88%	49%	53%	48%	61%
Luweech	**Inches**	19.15	3.52	5.48	11.96	40.11
	% WSO*	261%	59%	92%	208%	160%
Maap	**Inches**	12.20	4.03	7.15	8.29	31.67
	% WSO*	166%	67%	120%	144%	127%
North Fanif	**Inches**	26.22	7.00	7.19	7.34	47.75
	% WSO*	358%	117%	121%	127%	191%
Rumung	**Inches**	21.17	7.71	7.45	8.17	44.50
	% WSO*	289%	129%	125%	142%	178%
Tamil	**Inches**	24.21	5.63	7.88	10.46	48.18
	% WSO*	330%	94%	132%	182%	192%
Outer Islands						
Ulithi	**Inches**	17.39	3.78	4.33	5.14	30.64
	% Avg	101%	74%	85%	105%	144%
Woleai	**Inches**	10.84	5.02	2.86	6.03	24.75
	% Avg	101%	67%	34%	55%	66%

* With Respect to the normal values at the Yap WSO.
** Estimated from nearby stations.

Climate Outlook: Near average to above average rainfall is anticipated for all islands of Yap State for at least the next few months and probably through October. If El Niño conditions become established in the next few months, dry weather could become established across Yap State at the end of 2014 and become much drier than normal in the first half of 2015. The severity of the dry conditions will be affected by the strength of El Niño. During El Niño, the risk of a typhoon within Yap State, particularly at Yap Island and the atolls to the northeast is increased. The elevated risk is present in the spring and again from October through December. The passage in late November 2009 of very intense Typhoon Nida (26W) between Guam and Ulithi is a good analog. The chances for gale-force winds or greater from a tropical cyclone near Yap Island or any

LOCAL SUMMARY AND FORECAST

of its northern atolls will be slightly above normal for the remainder of the year (roughly 15-20%).

Predicted rainfall for Yap State from June 2014 through May 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]	
	Woleai	Yap & Ulithi
June – September 2014 (Heart of Rainy Season)	**95%**	**120%**
October – December 2014 (End of Rainy Season)	**90%**	**100%**
January – March 2015 (Heart of Next Dry Season)	**70%**	**75%**
April – June 2015 (Onset of Next Rainy Season)	**90%**	**80%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

Chuuk State: Rainfall was well above average throughout most of Chuuk State during the first four months of 2014, with an extreme monthly value of 35.70 inches recorded at the Chuuk Weather Service Office during February. A large portion of the February rainfall there came during a time late in the month when the developing Typhoon Faxai (03W) moved slowly through the region of Chuuk State as a tropical depression. Normally at this time of year, there is a gradient of rainfall from south to north across Chuuk State. During the first 4 months of 2014, this gradient was still present, with a distribution of 60 inches in some southern locations and 50 inches in the most northern atolls. During late April into May 2014, a widespread reduction in clouds and rainfall spread across Micronesia, probably as a result of a strong negative phase of the Madden-Julian Oscillation (MJO) entering the region. Rainfall amounts decreased across Chuuk State and a period of inadequate rainfall was reported from the southern Mortlocks. Water supplies, however, were not impacted.

Chuuk State Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Chuuk Lagoon						
Chuuk WSO	**Inches**	5.98	35.70	7.43	13.80	62.91
	% Avg	56%	577%	89%	112%	167%
Piis Panew	**Inches**	4.03	17.79	7.77	12.67	42.26
	% WSO*	38%	288%	93%	103%	113%
Western Atolls						
Polowat	**Inches**	6.77	6.58	6.70	8.88	28.93
	% Avg	85%	105%	107%	148%	109%
Northern Atolls						
Fananu	**Inches**	3.77	13.88	15.84	11.60	45.09
	% WSO*	35%	224%	190%	94%	120%
Onoun	**Inches**	6.77	19.08	9.79	17.61	53.25
	% WSO*	63%	309%	117%	143%	142%

*With respect to WSO normals

LOCAL SUMMARY AND FORECAST

Chuuk State Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Northern Atolls						
Fananu	**Inches**	3.77	13.88	15.84	11.60	45.09
	% WSO*	35%	224%	190%	94%	120%
Onoun	**Inches**	6.77	19.08	9.79	17.61	53.25
	% WSO*	63%	309%	117%	143%	142%
Northern Mortlocks						
Losap	**Inches**	10.32*	19.83*	11.92*	13.06	55.13
	% WSO*	97%	321%	143%	106%	147%
Nama	**Inches**	10.32	19.83	11.92	12.47	54.54
	% WSO*	97%	321%	143%	101%	145%
Namoluk	**Inches**	15.51	19.79	9.70	7.42	52.42
	% Luk**	147%	208%	81%	56%	116%
Southern Mortlocks						
Lukunoch	**Inches**	21.65	18.42	12.76	8.18	61.01
	% Avg	205%	193%	106%	62%	135%
Ettal*	**Inches**	15.77	21.78	8.91	7.35	53.81
	% Luk**	149%	229%	74%	56%	119%
Ta*	**Inches**	15.22	25.46	10.44	11.23	62.35
	% Luk**	144%	267%	87%	85%	138%

*With respect to WSO normals,
** With respect to Lukunoch normals.

Climate Outlook: With the Pacific basin climate moving toward El Niño, there should be abundant rainfall across Chuuk State at least through October. During El Niño years, the monsoon trough extends farther to the east than at other times, and this shifts the development region of tropical cyclones eastward into Chuuk State or as far as the Marshall Islands. The presence of the monsoon trough and an abundance of tropical disturbances helps to augment episodes of heavy rainfall. Since the monsoon trough is inherently episodic, and sensitive to MJO activity, the month-to-month variability of rainfall could be high. In the latter months of the year, there is an elevated risk of a tropical storm or typhoon to pass through Chuuk State. The risk for at least one named storm moving through the region is high (~75%). The longer term climate risk that typically follows El Niño is drought. A drought condition could be seen early 2015.

Predictions for Chuuk State from June 2014 through June 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]			
	Chuuk Lagoon, Losap, and Nama	Polowat	Northern Atolls and Islands	Southern Mortlocks
Jun – Sep 2014	**120%**	**100%**	**12%**	**110%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

LOCAL SUMMARY AND FORECAST

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]			
	Chuuk Lagoon, Losap, and Nama	Polowat	Northern Atolls and Islands	Southern Mortlocks
Oct – Dec 2014	**100%**	**95%**	**100%**	**100%**
Jan – Mar 2015	**75%**	**75%**	**75%**	**80%**
Apr – Jun 2015	**80%**	**80%**	**75%**	**90%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

Pohnpei State: During the first four months of 2014, rainfall was above average at most locations on Pohnpei Island, and below average at some of the atolls of Pohnpei State. February is normally the driest month of the year on Pohnpei Island, but this year it was very wet. The distribution of rainfall on Pohnpei Island was somewhat unusual with both the WSO and the Airport wetter than Palikir. Nukuoro and Kapingamarangi have been continually very wet for nearly two years. Both atolls were very wet in January and February 2014, but each had two consecutive relatively dry months during March and April. Pingelap was an outlier, with very low rainfall totals. Mean sea level recorded at Pohnpei Island has recently exhibited a fall, which is consistent with the possible ongoing shift of the climate system to El Niño.

Pohnpei State Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Pohnpei Island						
Pohnpei WSO	**Inches**	10.31	21.50	14.70	15.96	62.47
	% Norm	79%	199%	109%	97%	116%
Palikir	**Inches**	12.99	14.99	15.13	14.52	57.63
	% WSO*	92%	128%	103%	82%	99%
Kolonia Airport	**Inches**	16.85	10.69	10.77	19.47	57.78
	% WSO*	157%	121%	97%	144%	131%
Atolls of Pohnpei State						
Nukuoro	**Inches**	19.44	15.67	11.71	13.77	60.59
	% Norm	165%	149%	86%	92%	119%
Pingelap	**Inches**	4.66	5.93	3.90	10.51	25.00
	% Norm	37%	57%	31%	85%	52%
Mwoakil-loa	**Inches**	14.22	10.73	8.14	7.34	40.43
	% Norm	132%	121%	73%	54%	91%

* With respect to WSO normals.

LOCAL SUMMARY AND FORECAST

Pohnpei State Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Atolls of Pohnpei State						
Kapinga-marangi	**Inches**	15.38	10.36	9.26	5.83	40.83
	% Norm	147%	101%	67%	43%	85%

* With respect to WSO normals.

Climate Outlook: A strong negative phase of the Madden-Julian Oscillation (MJO) was observed throughout Micronesia from late April through May. In the negative phase of MJO, there is a widespread reduction of cloudiness and rainfall. It is likely that during June, and continuing through October, abundant rainfall will return. During El Niño, the monsoon extends farther eastward into Micronesia bringing episodes of heavy rains into Pohnpei State. The monsoon trough is inherently episodic and sensitive to MJO, so high month-to-month variability is expected for the next several months. Depending upon the ultimate strength of the developing El Niño, a tropical storm is at least 50% likely to form within or east of Pohnpei State, and then pass north of Pohnpei Island, bringing gusty southwest winds into the state. The timing of highest risk for this would be from late September through December. In the longer term, there is a risk of drought across most of Pohnpei State in early 2015 (if the developing El Niño is moderate or strong).

Predicted rainfall for Pohnpei State from June 2014 through June 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]	
	Pohnpei Island and Atolls	Kapingamarangi
June - Sep 2014	**115%**	**95%**
Oct - Dec 2014	**100%**	**100%**
Jan - Mar 2015	**85%**	**90%**
Apr - Jun 2015	**95%**	**80%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

Kosrae State: The total rainfall for the first four months of 2014 was near average (100% + or – 10%) at all Kosrae reporting sites. A very wet April made up for rainfall deficits in February and March. On the 12th of April a 24-hour extreme rainfall event occurred with 6.95 inches recorded at the airport and 5.21 inches at the Nautilus Hotel. The high rainfall during April resulted in some mudslides on the island. There were no reports of injuries or damage to property from these mudslides. The tropical disturbance that became Typhoon Tapah (06W) passed over Kosrae in late April, contributing to the heavy rainfall experienced during that month. No reports of damaging sea inundation were received from Kosrae.

LOCAL SUMMARY AND FORECAST

Kosrae State Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Jan.**	**Feb.**	**Mar.**	**Apr.**	**Total**
Airport (SAWRS)	**Inches**	14.39	13.47	13.12	26.29	67.27
	% Avg	100%	82%	70%	121%	95%
Utwe	**Inches**	14.66	11.62	21.93	28.25	76.46
	% SWR*	102%	71%	117%	130%	108%
Tofol	**Inches**	15.52	10.15	11.80	30.31	67.78
	% SWR*	108%	62%	63%	140%	95%
Nautilus Hotel	**Inches**	18.37	8.86	13.94	24.20	65.37
	% SWR*	128%	54%	75%	112%	92%

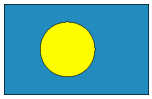
* SAWRS(SWR) means Supplementary Aviation Weather Reporting Stations

Climate Outlook: For the next several months, weak easterly winds should dominate in Kosrae State. Areas of disturbed weather should episodically affect Kosrae during the remainder of the year, with monthly rainfall totals near or slightly above average. Toward the end of the year, the monsoon trough could extend to the east of Kosrae, allowing for a tropical cyclone to form near the island. Unusual westerly winds could be experienced on Kosrae from late September through December from the extended monsoon trough, or any tropical cyclone that forms nearby to the north of the island. An extended monsoon can also be associated with high surf on the southwest side of the island. In the longer term, there is a risk of unusually dry conditions during early 2015 if the developing El Niño is moderate or strong.

Predicted rainfall for Kosrae State from June 2014 through June 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]
June – September 2014	**115%**
October – December 2014	**105%**
January – March 2015	**80%**
April – June 2015	**90%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.



Republic of Palau: All recording locations throughout the Republic of Palau had above normal rainfall totals for the first four months of 2014, with a distribution of very wet conditions during January and April, and relatively dry conditions during February and March. The geographical distribution of rainfall was typical, with the International Airport having the highest total and Peleliu the lowest total. The high rainfall was partly attributable to tropical disturbances and numbered tropical cyclones passing nearby. On the last few days of January, the well-organized tropical disturbance that became Tropical Storm Kajiki (02W) passed through the Republic of Palau. Early on the morning of 06 April, Tropical Storm Peipah (05W) passed just south of

LOCAL SUMMARY AND FORECAST

Koror. At the time, the system was weakening to a tropical depression, brought with it heavy rainfall over the three-day period of 6-8 of April. There has been a very large fall of mean sea level in Palau recorded at the tide gauge located in Malakal. The sea level fell continuously during January through April. A large fall of sea level in Palau at this time of year is consistent with the onset of El Niño.

Republic of Palau Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		**Oct.**	**Nov.**	**Dec.**	**4th Qtr**	**Annual**
Koror (WSO)	**Inches**	17.27	7.79	5.08	16.38	46.52
	% Norm	161%	85%	62%	189%	127%
Nekken	**Inches**	13.21*	9.24*	9.04	18.78	50.27
	% Norm	123%	101%	110%	217%	137%
Intl. Airport	**Inches**	16.85	10.69	10.77	19.47	57.78
	% Norm	157%	117%	131%	225%	157%
Peleliu	**Inches**	19.34	6.84	4.60	12.85	43.63
	% Norm	181%	75%	56%	110%	119%

Climate Outlook: Near average rainfall is anticipated across the Republic of Palau over the next few months. If El Niño becomes established, the monsoon trough would push farther eastward into Micronesia, and many of the season's tropical cyclones would tend to form farther east and lift well to the north of Palau. By early July, southwesterly wind flow will become persistent, with episodes of showery weather interspersed with hazy warm windy days. Late in the year, the risk of a tropical cyclone passing near Palau will be near average (about 15%). A long-term risk is the possible onset of El Niño-related very dry conditions beginning in late 2014 and extending into the first few months of 2015.

Predicted rainfall for Palau from June 2014 through June 2015 is as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]
July – September 2014	**110%**
October – December 2014	**95%**
January - March 2015	**85%**
April - June 2015	**90%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

Republic of the Marshall Islands: One year ago, some of the northern atolls of the RMI suffered very severe drought. During January of 2014, the northern RMI were very dry once again. Fearing another round of drought with impacts on water quality and quantity, the WFO Guam issued a series of Drought Information Statements for the northern atolls of the RMI. In February 2014, a major change in weather patterns began. Very heavy rainfall fell at Kwajalein, ending concerns with the water supply on that atoll and neighboring Ebeye. Very high rainfall occurred at most atolls of the RMI over the following three months, with

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Kwajalein and Majuro setting monthly and daily rainfall records! Only at atolls north of 10° N did relatively dry conditions continue at times over the remainder of the four-month period. February and April were particularly wet at most RMI locations. April, however, was in a class by itself:

- Majuro set a monthly rainfall record;
- Kwajalein fell just short of its April extreme (although a lesser total in February set the record for that month);
- Kwajalein set a 24-hour rainfall record with a total of 12 inches; and
- Mili had over 30 inches of rain during the month!

These enormous rainfall totals were generally welcomed on the atolls where most drinking water is captured from roof-tops run-off and run-off from the runways of the airports. Abundant rainfall also helps to stabilize and rejuvenate limited groundwater resources on the atolls. On Kwajalein there were reports of water damage to structures and shorts in electrical distribution systems. The very high rainfall in the RMI in this typically dry time of the year is a canonical sign of El Niño, and is one of the factors leading to a high confidence that El Niño will become established this year.

RMI inundation 03 March 2014

During the time of the early morning and late afternoon high tides on the 3rd of March (Fig. 3), several atolls of the RMI experienced damaging sea inundation (Fig. 4, pg. 12) caused by unusually large waves. The large waves were generated by a fetch of strong northerly winds associated with an extra-tropical storm system well to the north of the RMI. The large waves arrived coincidentally with the highest high tides of the month. These highest high tides are often referred to as the "King" tides. While the King tides were not the cause of the inundation, they certainly exacerbated the effects of the very large surf.

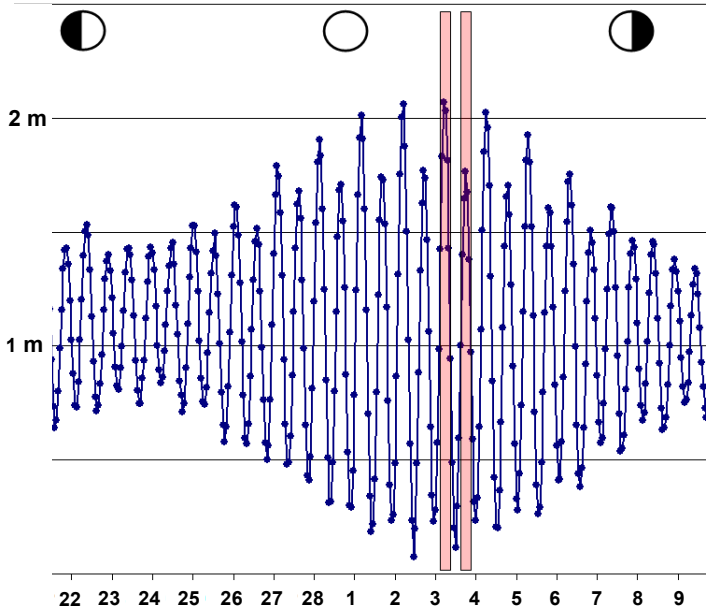


Figure 3 (Prior). Observed sea level at Majuro for the period 22 February through 09 March 2014. Severe inundation from an arriving large swell occurred for a few hours centered on the two high tides of the 3rd of March. Note the coincidence of the wave inundation event with the highest high tides .

LOCAL SUMMARY AND FORECAST

The following summary of the disastrous inundation is posted on the website of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA)(http://reliefweb.int/disaster/ss-2014-000032-mhl)

"On 3 Mar 2014, tidal surges during the morning and afternoon high tides caused inundation to communities on low-lying atolls of the Marshal Islands. Waves washed over shore-lines, sending water, rubbish and debris across roads and properties. There are no reports of fatalities or serious injuries. The Government declared a state of emergency, set up an Emergency Operations Centre and has been holding National Disaster Committee meetings with humanitarian partners. (OCHA, 4 Mar 2014)"

"In Majuro, a total of 70 homes were damaged to varying degrees, from complete destruction to minor damage. The total number of evacuees peaked at 940; by 7 Mar, 160 people were still displaced and had been relocated to churches in Uliga and Rita. The outer islands of Mili, Maloelap, Kili and Wotje were also affected, with severe impacts to Arno. Tinak Health Centre was completely destroyed, and Malel and Kilange Health Centres are low on medical supplies. Most breadfruit, pandanus and banana trees have been destroyed, and shops have lost all food stock. Many household water catchments are damaged and community tanks contaminated. Around 80 per cent of sanitation facilities are affected, with sewage reported in some locations. (OCHA, 7 Mar 2014)"

"The tidal surges also caused damage to five islands in Kiribati. Most of the impact is to Marakei Atoll (population 2,872), with approximately 44 homes damaged and evacuees sheltering in community halls. There is also damage to sea walls and causeways on the main island, Tarawa. Access to clean drinking water is a key concern as groundwater sources have been contaminated. The Government has requested the support of Kiribati Red Cross Society in carrying out initial damage assessments. A state of emergency and international assistance will be decided once assessments are complete. (OCHA, 7 Mar 2014)."

RMI Rainfall Summary 1st Qtr 2014 (Jan-Apr)

Station		Jan.	Feb.	Mar.	Apr.	Total
RMI Central and Southern Atolls						
Majuro WSO	Inches	9.66	12.19	5.96	23.20	51.01
	% Avg	115%	198%	72%	226%	154%
Laura	Inches	11.91	14.96	8.02	17.50	52.39
	% Avg*	141%	243%	97%	170%	158%
Mili	Inches	12.06	9.65	12.61	33.36	67.68
	% Avg*	143%	157%	152%	325%	204%
Aling-laplap	Inches	2.33	12.30	7.64	10.67	32.94
	% Avg	36%	262%	120%	155%	116%
Jaluit	Inches	6.19	12.27	4.12	15.91	38.49
	% Avg	73%	200%	50%	155%	116%
Arno	Inches	9.95	14.47	7.26	21.74	53.42
	% Avg*	118%	235%	88%	211%	161%

* Station percents based on Majuro WSO averages

Continued on page 12...

Seasonal Sea Level Outlook for the US-Affiliated Pacific Islands

The following sections describe: (i) the Canonical Correlation Analysis (CCA) forecasts for seasonal (mean and maxima) sea-level anomalies (seasonal cycle removed) for the forthcoming seasons April-May-June (AMJ), May-June-July (MJJ), and June-July-August (JJA), AMJ return values at 20 and 100-yr period, (ii) the observed monthly mean and maximum sea-level anomalies for the previous season MAM 2014, and (iii) Seasonal sea level variability: A Comparative Perspective. *Note that, seasonal cycles have been removed for the data anomalies that are defined as 'deviations or departures from the normal' using the 1983 through 2001 mean sea level value computed at each station. Also note that CCA-forecasting technique adopted here does not account for sea-level deviations created by other atmospheric or geological factors such as tropical cyclones, storm surges or tsunamis.*

(i) Seasonal sea level forecast (*anomalies with respect to climatology*) for AMJ, MJJ, and JJA of 2014

Forecasts of the sea-level anomalies in the USAPI (see http://www.prn.noaa.gov/peac/map.php) are presented using CCA statistical model. Based on the independent SST and zonal wind (U) (SST-U) values in JFM 2014, the resulting CCA model has been used to forecast the sea-level of three consecutive seasons: AMJ, MJJ, and JJA (see Table 1: left panel shows values for seasonal mean while the right panel shows the seasonal maxima). All the tide gauge stations (at 0 to 2-months lead time) show skillful forecasts for these three consecutive seasons (Table 1: bottom panel). The forecasts have been found to be skillful (http://www.prh.noaa.gov/peac/peu/2014_1st/PEU_v20_n1.pdf).

Table 1: Forecasts of sea level anomalies in inches (AMJ, MJJ, and JJA)

	Seasonal Mean Deviations [1]				Seasonal Max Deviations [2]					
Tide Gauge Station	**AMJ**	**MJJ**	**JJA**	**Forecast Quality[3]**	**AMJ**	**MJJ**	**JJA**	**Forecast Quality[3]**	***AMJ: Return Period[4]***	
Lead Time [5]	*0*	*1M*	*2M*		*0*	*1M*	*2M*		*20 Year*	*100 Year*
Marianas, Guam	+4	+4	+3	Good	+20	+21	+21	Good	5.6	6.7
Malakal, Palau	-1	-1	-1	V. Good	+39	+40	+41	Good	9.6	14.3
Yap, FSM	+1	+1	+1	V. Good	+31	+32	+32	Good	16.7	33.0
Chuuk, FSM**	+1	+1	+1	N/a	+31	+32	+32	N/a	n/a	n/a
Pohnpei, FSM	+2	+2	+2	V. Good	+34	+33	+32	V. Good	5.8	7.1
Majuro, RMI	+1	+1	+1	V. Good	+41	+40	+40	Fair	4.1	5.1
Kwajalein, RMI	+3	+2	+2	V. Good	+41	+41	+42	Good	4.5	5.9
Pago Pago, Am. Samoa	+5	+5	+5	V. Good	+26	+26	+26	V. Good	3.9	5.4
Honolulu, Hawaii	+1	+1	+1	Poor	+20	+20	+21	Poor	4.1	5.9
Hilo, Hawaii	+1	+2	+2	Poor	+21	+23	+24	Poor	7.9	11.4

Note: (-) indicate negative anomalies (fall of sea level from the mean), and (+) indicate positive anomalies (rise of sea level from the mean), n/a: data not available. Anomalies from -1 to +1 inches are considered negligible and anomalies from -2 to +2 inches are unlikely to cause any adverse climatic impact. Forecasts for Chuuk (**) are estimated subjectively based on information from WSO Chuuk and observations from neighboring stations of Pohnpei and Yap. See http://www.prh.noaa.gov/peac/footnote.php for the explanations of footnotes 1 to 5. Also note that all information is based on the 1983-2001 epoch.

Remarks: The forecasts values of sea level for JFM, FMA, and MAM seasons (Table 1, above) indicate that most of the stations in the north Pacific region are likely to be marginally (e.g., 1-2 inches) higher than normal in the forthcoming seasons. Palau at Malakal is even likely to be marginally below normal. In Hawaii, both Honolulu and Hilo are likely to be closer to normal during the same time period. The falling trend of sea level is supportive to the evolution of El Niño state.

Currently Oceanic Kelvin Waves signal potential El Nino—this means reversal of the prevailing wind direction which will cause piled-up water from the tropical western Pacific to flow eastward. As a result, the North Pacific Islands are likely to experience significant drop in sea-level from July 2014 to March 2015. However, as the year advances, the band of westerly anomalies shifts southward and strengthens in the region of 0-10 degree South by JFM of 2015. The shift of this surface wind patterns will result American Samoa to experience sea-level drop from January 2015 and continues up to June 2015. American Samoa displays a couple of months delay with respect to sea-level variations in Guam and Marshalls

(ii) Observed monthly sea level anomalies in OND, 2013

The monthly time series (January to March) for sea level anomalies have been taken from the UH Sea Level Center. The full time series (in mm) for monthly mean is available at: ftp://ilikai.soest.hawaii.edu/islp/slpp.anomaliess. Locations of all these stations can be found at http://www.prn.noaa.gov/peac/map.php.

Seasonal Sea Level Outlook for the US-Affiliated Pacific Islands

Table 2: Monthly observed mean/max sea-level anomalies in inches

Tide Gauge Station	Monthly Mean Deviations[1]				Monthly Max Deviations[2]			
	Mar	Apr	May	Standard Deviations	Mar	Apr	May	Standard Deviations
Marianas, Guam	+3.5	+5.5	+3.6	3.9	+21	+19	+17	4.0
Malakal, Palau	+1.2	0	+2.0	4.2	+37	+34	+36	4.3
Yap, FSM	+7.2	+6.7	+2.7	4.5	+34	+34	+28	5.0
Chuuk, FSM**	*							
Pohnpei, FSM	+3.5	+0.5	*	2.5	+32	+28	*	2.9
Majuro, RMI	+3.0	+0.8	*	2.0	+45	+36	*	3.0
Kwajalein, RMI	+4.7	+1.7	0	2.6	+45	+36	+35	3.3
Pago Pago, American Samoa	+6.2	+5.6	+5.0	4.2	+33	+27	+27	4.8
Honolulu, Hawaii	+0.5	0	-0.7	1.7	+14	+16	+17	1.9
Hilo, Hawaii	+0.7	-0.1	-0.3	1.9	+22	+18	+22	2.4

* Data currently unavailable; 1: Difference between the mean sea level for the given month and the 1983 through 2001 mean sea level value at each station (seasonal cycle removed); 2: Same as 1 except for maxima; SD stands for standard deviations.** Impact of Typhoon Haiyan. Also see footnotes of Table 1.

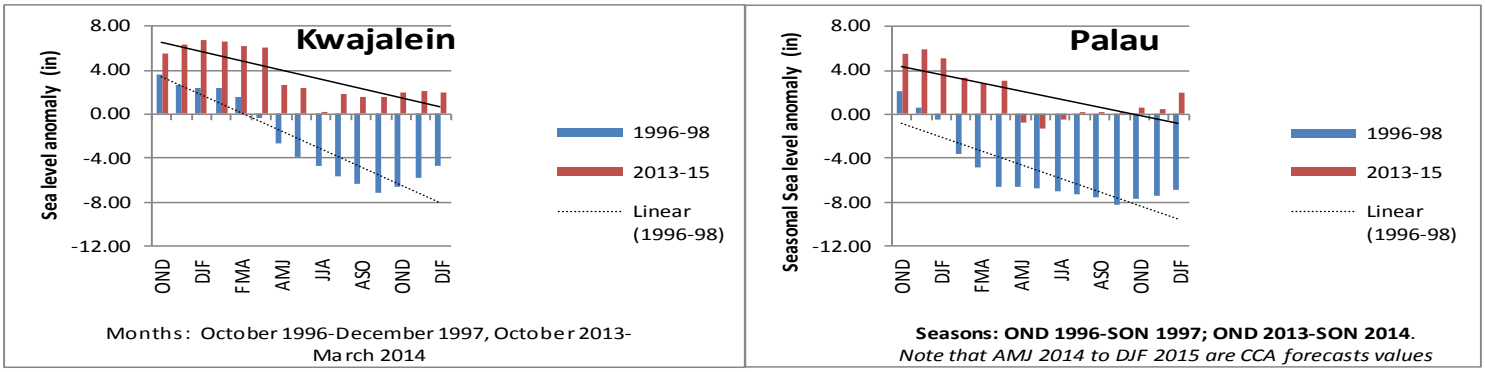
Remarks: As compared to February 2014, the monthly mean sea level anomaly in March 2014 shows a fall in all stations except Yap, where a marginal rise was recorded. Honolulu remained static while Hilo recorded a slight rise. The recent falling trend in sea level is very supportive to the on-going El Nino Watch. Normally sea level is lower than normal during an El Nino year.

Currently, based on 1983-2001 (mean annual cycle removed), all north Pacific stations are 1-7 inches higher than normal; Honolulu and Hilo are very close to normal.

(iii) Seasonal Sea Level Variability: A Comparative Perspective of 2013-15 and 1996-98 Sea Level Values (MJJ 2014 to DJF 2015 are SST-Wind-based CCA forecasts values)

Sea level variations in the USAPI region are sensitive to ENSO, with low sea-level during El Niño and high sea-level during La Niña events. This is very distinct from the time of onset of events (i.e. summer) and continues up to March of the following year. Following are the seasonal sea level values from OND 2013 to DJF 2015. In order to draw a comparative perspective with the historical 1997 El Niño event, the seasonal sea level values from OND 1996 to DJF 1998 has also been added (Fig. 1). During the 1997 El Niño event, the seasonal sea level average for most of the stations showed large and negative deviations from JFM or AMJ. Only, Pohnpei, Majuro, and Kwajalein were little late to respond (Fig. 1). This year is yet to see any large deviations in JFM or AMJ. However, sea levels are falling rapidly for most of the stations, except Pago Pago which is expected (see section *ii*). Currently, all north Pacific stations are 3-4 inches lower than the last quarter. As compared to January 2014, an impressive 7 inch fall in April was recorded in Palau plummeting all the way to normal! The fall of sea level in the north and south Pacific islands are described by the composites of SST and circulation diagnostic (Chowdhury et al., 2007), which shows that strong El Niño years feature stronger surface westerly winds in the equatorial western-central Pacific that then causes the north Pacific islands to experience lower sea level from the months of July to December.

Figure 1 (Below). Seasonal sea level anomaly during OND 1996-DJF 1998; OND 2013-SON 2014. *Note that MJJ 2014 to DJF 2015 are SST-Wind-based CCA forecasts values*



LOCAL SUMMARY AND FORECAST

...Continued from page 9

RMI Rainfall Summary 1st Qtr 2014 (Jan-Apr)						
Station		Jan.	Feb.	Mar.	Apr.	Total
RMI Northern Atolls						
Kwajalein	Inches	3.81	13.82	11.17	19.24	48.04
	% Avg	84%	428%	272%	255%	247%
Wotje	Inches	0.69	3.39	2.45	9.45	15.98
	% Avg	16%	116%	63%	132%	87%
Utirik	Inches	0.68	1.60	5.58	1.99	9.85
	% Avg	18%	58%	160%	31%	60%

* Station percents based on Majuro WSO averages

Climate Outlook: The wet conditions throughout most of the RMI so far during 2014 are consistent with a developing El Niño. The atolls of the RMI are typically very wet during an El Niño year. The normal progression of El Niño-related rainfall is for wet conditions to persist through October (2014), with high month-to-month variability. Then toward the end of the year, dry conditions arrive and persist into the early part of the following year (2015). The magnitude and duration of dry conditions depend on the strength of El Niño. The risk of a strong tropical cyclone in the RMI is almost wholly dependent upon El Niño. Nearly all typhoons affecting the RMI occur during El Niño. The greatest threat is during November through January. Historical El Niño-related tropical cyclones in the RMI include: the November 1918 Typhoon, Typhoon Zelda (Nov. 1991), Typhoon Axel (Jan. 1992), and Typhoon Paka (Dec. 1997).

LOCAL SUMMARY AND FORECAST

Predicted rainfall for the RMI from June 2014 through June 2015 are as follows:

Inclusive Period	% of long-term average / Forecast rainfall (inches) [1]		
	South of 6ºN	6ºN to 9ºN	North of 9ºN
June – Sep 2014	**110%**	**120%**	**120%**
Oct – Dec 2014	**100%**	**100%**	**100%**
Jan – Mar 2015	**80%**	**75%**	**70%**
Apr – June 2015	**95%**	**90%**	**85%**

[1] Forecast rainfall quantities represent BEST ESTIMATES given the probabilistic forecast for each particular season and station.

Figure 4. Sea water surging onto normally dry land on the island of Majuro during the inundation event of March 3rd.
-Photo by Lee Jacklick, WSO forecaster.

ACKNOWLEDGEMENTS AND FURTHER INFORMATION

Pacific ENSO Applications Climate (PEAC) Center:
HIG #340, 2525 Correa Road, Honolulu, Hawai'i 96822
LTJG G. Carl Noblitt IV, Pacific Region Climate Officer, at 808-956-2324: for information on PEAC, the Pacific ENSO Update and ENSO-related climate data for the Pacific Islands.
Dr. Rashed Chowdhury, Principal Research Scientist, at 808-956-2324: for information on ENSO and sea-level variability in the USAPI.
Alejandro Ludert, Graduate Research Assistant and Webmaster, at 808-956-2324 for: information related to the PEAC website.

University of Hawai'i - Joint Institute of Marine and Atmospheric Research (JIMAR), School of Ocean and Earth Science and Technology (SOEST), Department of Oceanography:
MSB #317, 1000 Pope Road, Honolulu, Hawai'i 96822
Dr. Mark Merrifield, PEAC Principal Investigator at 808-956-6161: for more information on sea level and climate in Hawai'i.

NOAA National Weather Service
Weather Forecast Office (WFO) Honolulu:
HIG #250, 2525 Correa Rd., Honolulu, HI, 96822
Tom Evans, PEAC Director, at 808-973-5270: for information related to NWS.

NOAA National Weather Service
Weather Forecast Office (WFO) Guam:
3232 Hueneme Road, Barrigada, Guam, 96913
Chip Guard, Warning Coordination Meteorologist, at 671-472-0900: for information on tropical cyclones and climate in the USAPI.

University of Guam - Water and Environmental Research Institute (WERI):
UOG Station, Mangilao, Guam 96913
Dr. Mark Lander, PEAC Meteorologist, at 671-735-2685 for: information on tropical cyclones and climate in the USAPI.

The Pacific ENSO Update is a bulletin of the Pacific El Niño-Southern Oscillation (ENSO) Applications Climate (PEAC) Center. PEAC conducts research & produces information products on climate variability related to the ENSO climate cycle in the U.S. Affiliated Pacific Islands (USAPI). This bulletin is intended to supply information for the benefit of those involved in such climate-sensitive sectors as civil defense, resource management, and developmental planning in the various jurisdictions of the USAPI.

The Pacific ENSO Update is produced quarterly both online and in hard copy, with additional special reports on important changes in ENSO conditions as needed. For more information about this issue please contact the editor, LTJG G. Carl Noblitt IV, at peac@noaa.gov or at the address listed below.

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