Pacific ENSO Update –
Special Bulletin September 28, 2006
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SPECIAL ISSUE BULLETIN

Current SST (sea surface temperature) and atmospheric conditions recently reached the El Niño threshold. This event started later than is typical and is anticipated to be of a weak to moderate intensity. This special bulletin is being issued to update the information in the last full issue of the Pacific ENSO Update (3rd Quarter, 2006) because of the development of weak to moderate El Niño conditions. The next full issue of Pacific ENSO Update (4th Quarter, 2006) will issued in November with updated information.

CURRENT CONDITIONS

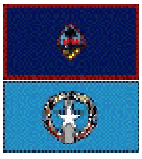
On Sept 13th 2006, NOAA's Climate Prediction Center reported that "El Niño conditions have developed and are likely to continue into early 2007. By early September equatorial SST anomalies greater than +0.5ºC were observed in most of the equatorial Pacific, with anomalies exceeding +1.0ºC in the central Pacific between 165ºE and 170ºW . The latest SST departures in the Niño regions are all greater than +0.5ºC . Beginning in February the basin-wide upper ocean heat content increased, and since early April positive anomalies have been observed. Since early July weaker-than-average low-level equatorial easterly winds have been observed across most of the equatorial Pacific. In August the Southern Oscillation Index (SOI) was negative for the fourth consecutive month. Collectively, these oceanic and atmospheric anomalies are consistent with developing warm episode (El Niño) conditions in the tropical Pacific."

Most of the forecast models indicate **El Niño conditions continuing for the remainder of 2006 and into the NH [Northern Hemisphere] spring 2007.** "Currently, weak El Niño conditions exist, but there is a potential for this event to strengthen into a moderate event by winter," said Vernon Kousky, scientist at NOAA's Climate Prediction Center.

Through September of 2006 there have been very few weather extremes in the north Pacific USAPI. There have been several tropical storms and typhoons in the western North Pacific basin however all of them tracked north of Micronesia. Very recently, the monsoon southwest winds have extended as far east as Majuro. For the first time since 2002 (an El Niño year), a hurricane formed in the Central North Pacific. This TC Ioke, passed over Wake Island. In September, two tropical depressions, TD-2C and TD-3C, formed in the Central Pacific basin. During El Niño years, there is an increased number of tropical cyclones formed in the Central Pacific basin. In the South Pacific, American Samoa's dry season has been wetter than normal.

LOCAL VARIABILITY SUMMARIES

AMERICAN SAMOA: The recent dry season months have been relatively wet. Wet weather should continue through the rainy season (November—April). With the predicted active monsoon season during the next rainy season, several episodes of gusty NW winds and heavy rainfall should occur. Historically, **moderate El Niño conditions** have produced **increased tropical cyclone activity** and have brought an **early start to the cyclone season**. **With a forecast of weak to moderate El Niño conditions, there is a higher probability for increased tropical cyclone activity in the area surrounding Samoa**. **Rainfall is anticipated to be above normal for the next season**. Through August, observed sea level at Pago Pago has been slightly above normal for all of 2006.



GUAM/CNMI: Although Guam was extremely dry from mid-August to mid-September, abundant rainfall should occur for through mid-December. Dry weather associated with El Niño may possibly begin in December and continue through the next dry season through May. It is too soon, however, to

quantify the amount of dryness. The **threat of a typhoon strike is greatly increased on Guam** during El Niño years. **The odds of typhoon force winds on Guam are 1 in 3** up from the 1 in 10 odds of non El Niño years. Sea level which was well above normal earlier in the year has fallen to near normal levels.

MICRONESIA (FSM):

Chuuk: .The odds of a damaging tropical cyclone is the highest during an El Niño year. **Dry weather associated with El Niño may possibly begin in December and continue through the next dry season.** It is too soon, however, to quantify the amount of dryness. At this point, dry conditions are not anticipated to be as severe as the were during the strong 82/83 and 97/98 El Niños.

Pohnpei: The risk of a tropical cyclone is very low. However, any tropical storm that passes south of 10N could bring south-westerly gales, heavy rain, and high seas. A direct strike by a typhoon is very unlikely. **Dry weather associated with El Niño may possibly begin in December and continue through the next dry season.** It is too soon, however, to quantify the amount of dryness. At this point, dry conditions are not anticipated to be as severe as the were during the strong 82/83 and 97/98 El Niños. Through July, sea level has not dropped below the long-term average (August data is not available).

Kosrae: The risk of a tropical cyclone is very low. However, any tropical storm that passes south of 10N could cause south-westerly gales and heavy rain. A direct strike by a typhoon is very unlikely. **Dry weather associated with El Niño may possibly begin in December and continue through the next dry season**. It is too soon, however, to quantify the amount of dryness. At this point, dry conditions are not anticipated to be as severe as the were during the strong 82/83 and 97/98 El Niños.

Yap: In Yap, El Niño does not significantly change the risk of a damaging tropical cyclone**. Dry weather associated with El Niño may possibly begin in November, December and continue through the next dry season**. It is too soon, however, to quantify the amount of dryness. At this point, dry conditions are not anticipated to be as severe as the were during the strong 82/83 and 97/98 El Niños.

MARSHALL ISLANDS (RMI): While the risk of a damaging tropical cyclone in the RMI is low in general, it is increased during an El Niño year. .**The northern atoll are especially at risk for El Niño related dry conditions possibly beginning in November and extending into the next dry season**. At this point, dry conditions are not anticipated to be as severe as the were during the strong 82/83 and 97/98 El Niños. Through August, sea level at Kwajalein has not dropped below the long-term average; in July Majuro's sea level dropped to slightly below normal (August data in not available).

PALAU: In Palau, El Niño does not change the risk of a damaging tropical cyclone. **Dry weather associated with El Niño may possibly begin in November/December and continue through the next dry season.** It is too soon, however, to quantify the amount of dryness. At this point, dry conditions are not anticipated to be as severe as the were during the strong 82/83 and 97/98 El Niños. Through August, sea level has stayed slightly above normal.

At this point it is too soon to quantify the amount of dryness for any of the islands. Keeping this in mind, now is a good time to begin taking sensible low cost conservation measures. Examples might include:

- Cleaning and fixing leaks in catchment systems
- Contingency plans for the possible delivery of water to outer islands

More detailed information on the anticipated rainfall amounts, tropical cyclone threat, and sea level information. will be in the November issue of the Pacific ENSO Update.