No. 11-2006 MONTHLY PACIFIC ENSO DISCUSSION FOR MICRONESIA AND AMERICAN SAMOA

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The Pacific ENSO Applications Center (PEAC) disseminated the fourth quarter 2006 newsletter (refer to http://www.soest.hawaii.edu/MET/Enso/peu/update.html) and has begun developing the first quarter 2007 newsletter. The Climate Prediction Center (CPC) stated the following in its December 7, 2006 *ENSO Diagnostic Discussion* (refer to http://www.cpc.ncep.noaa.gov): "Equatorial Pacific SST anomalies greater than +1ºC were observed in most of the equatorial Pacific between 170º E and the South American coast." The warming of the SSTs during the last several months has been accompanied by negative values of the Southern Oscillation Index (SOI), continued eastward transport of upper ocean heat content and weaker than normal low-level equatorial easterly winds. The CPC further observes that: "Collectively, these oceanic and atmospheric anomalies are consistent with the early stages of El Niño in the tropical Pacific."

Most of the latest climate forecast models predict that El Niño will peak between December and February, with weakening between March and May. Climate models cannot predict beyond this point with skill. While we are not predicting a follow-on El Niño event for 2007-2008, the persistent pool of warm water near the equator and date line could facilitate such an event. We will continue to monitor the behavior of this warm pool.

Tropical cyclone development and movement patterns for Micronesia and American Samoa could still be displaced toward the east due to the El Niño. This means that the Mariana Islands, Pohnpei State, Kosrae State, and the Marshall Islands could see a 3-fold increase in their risk of experiencing a tropical cyclone for the next month. American Samoa will also see increased rainfall and an increased risk of tropical cyclones with a possible early start to the season. At this point, we expect drier than normal conditions in western Micronesia from January through the upcoming dry season, with most locations about 40% below normal during the period. Majuro, Kosrae and Pohnpei should experience less dryness with the return of the trade wind trough over their locations. At this time, we recommend that all locations west of 150º E that have limited water resources begin to implement procedures to conserve those water resources.

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