No. 1-2007 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 nearly completed the first quarter 2007 newsletter. The Climate Prediction Center (CPC) stated the following in its January 11, 2007 *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 indicated the development of El Niño in the tropical Pacific." Recently, the eastward transport of upper ocean heat content has lessened and the equatorial easterly winds have intensified.

Most of the latest climate forecast models predict that El Niño has peaked or is very near its peak, and will slowly weaken between February and May. Climate models generally cannot predict beyond the May-June timeframe with much skill. The persistent pool of warm water that hovered near the equator and date line over the past several months has recently migrated to the southern hemisphere. Because of this, it is unlikely that the current El Niño past the late boreal spring/early boreal summer.

Tropical cyclone activity in Micronesia appears to be over until at least the late boreal spring or early boreal summer. American Samoa, however, will likely experience some tropical cyclone activity over the next 3-4 months as the monsoon trough is displaced eastward due to the effects of the waning El Niño. American Samoa will experience greater than normal rainfall and a possible early start to the tropical cyclone season. With the southward migration of the equator-date line warm pool, we now expect drier than normal conditions in most locations of Micronesia from now through April for islands between the equator and 6°N and from now through July for the Mariana Islands and the Marshallese islands poleward of 12ºN. Most locations will average about 60% of normal rainfall during the period, with the possibility of 1-2 months being below 50%. We recommend that all locations in Micronesia that have limited water resources implement procedures to conserve those water resources. This is especially important for the low islands/atolls and for Chuuk and Saipan.

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