

Second Meeting of the Pacific Meteorological Council (PMC-2)

1-5 July 2013
Nadi
Fiji Islands

Agenda Item 8.2:

The status of the ENSO early warning system TAO-TRITON

Purpose

1. To inform PMC members on the status of the TAO-TRITON (Tropical Atmosphere Ocean - Triangle Trans Ocean Buoy Network) array.
2. To request a statement of support from the PMC for the TAO/TRITON equatorial ocean observing system.

Background

3. The TAO array was initiated by the US National Oceanographic and Atmospheric Administration (NOAA) in 1984 in response to the severe El Niño of 1982-1983, which occurred without warning and caused billions of dollars of damage.
4. Japanese efforts supplemented the TAO array in 1999 which led to renaming of the array to TAO-TRITON.
5. The first reliable warnings of El Niño and La Niña events which drive most of the inter-annual variability in rainfall, temperature and cyclones across the region are given by the TAO-TRITON array. The TAO array still provides the only reliable subsurface ocean information at the equator.
6. Support for maintaining the array has declined over recent years, particularly with the decommissioning of the ship that provided most support to the TAO array, the *RV Ka'imimoana*, in 2012. The vessel *RV Ka'imikai-O-Kanaloa* will service the TAO moorings in 2013, however has been allocated 183 days which is 75% of the requirements for standard twice-year servicing of the buoys.
7. Japan has indicated they intend to transfer maintenance of the TRITON array to Indonesia. Korea is servicing the northern portion of the line on 165°E this year only.

8. As of 10 June 2013, 20 out of 53 TAO buoys are not operational and data return from the array has been down to 55%.

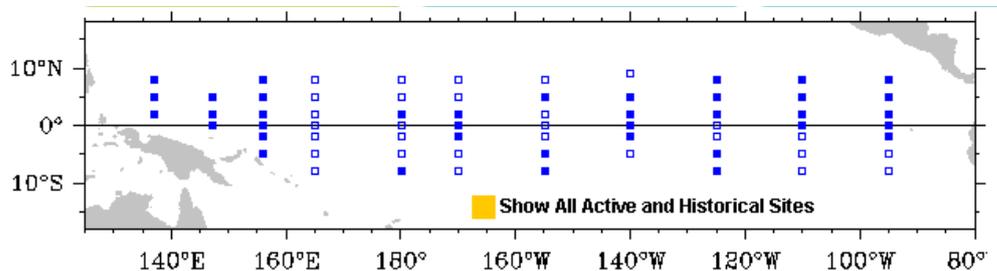


Figure 1. TAO-TRITON locations across the equatorial Pacific. Solid squares show stations from which subsurface temperature data is available, and empty squares show stations with no data. (Over the period from 1 May to 10 June 2013).

Recommendations

9. For the PMC to **endorse** the statement below:

The Pacific Meteorological Council recognises the value of the TAO-TRITON array in providing early warnings of El Niño and La Niña events and the associated seasonal climate forecasts that provide substantial benefit to Pacific Island Communities.

As such, the Pacific Meteorological Council strongly request that support for the TAO-TRITON array be maintained so these valuable services can be continued.