

27-08-2013

ENSO remains neutral as negative IOD weakens

The El Niño-Southern Oscillation (ENSO) has remained neutral since mid-2012. While most indicators have clearly remained neutral over recent months, the Southern Oscillation Index (SOI) has at times approached La Niña levels. It has now returned to neutral values.

Climate models surveyed by the Bureau of Meteorology suggest the tropical Pacific will remain ENSO-neutral for the rest of the year. Only one of the seven models surveyed suggests a brief period of La Niña-like cooling of the tropical Pacific.

The negative Indian Ocean Dipole (IOD) has weakened over recent weeks, with latest values of the index in the neutral range. If neutral IOD values persist to mid-September, the 2013 negative IOD event will be considered to have ended. Climate models are mixed, with some suggesting neutral IOD values for the months ahead, and some indicating negative IOD values may persist until at least mid-spring.

Negative IOD events during winter–spring are associated with above-average rainfall over southern Australia, and increased humidity over parts of northern Australia. A negative IOD can also contribute to below-average mean sea level pressure (MSLP) over Darwin, which may in turn raise the value of the SOI.

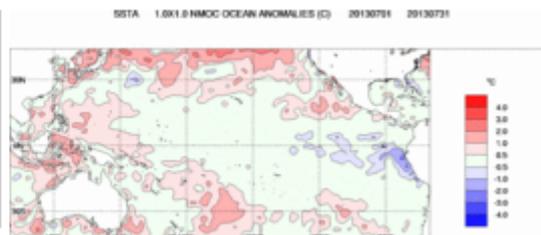
Sea Surface Temperatures

Monthly sea surface temperatures:

The sea surface temperature (SST) anomaly map for July 2013 shows cool SST anomalies across the eastern tropical Pacific and along the Peruvian coast. This pattern is generally similar to that of the previous month, although anomalies along the equator have weakened. Warm anomalies persist across the Maritime Continent, South Pacific Convergence Zone (SPCZ) and along Australia’s southern coastline. SST anomalies are near-average across the central tropical Pacific.

Index	June	July	Temperature change
NINO3	-0.4	-0.3	0.1 °C warmer
NINO3.4	0.0	-0.1	0.1 °C cooler
NINO4	+0.2	+0.2	no change

Baseline period 1961–1990.



Weekly sea surface temperatures:

The anomaly map for the week ending 25 August 2013 shows areas of cool anomalies in the eastern tropical Pacific and along the South American coast (in Ecuador and Peru). Some areas of the ocean surface east of 120°W are more than 1.0 °C cooler than average. Warm anomalies in the western Pacific and around the SPCZ have strengthened slightly compared to those of two weeks ago. Warm anomalies also remain along the southern coast of Australia despite weakening slightly.

Index	Previous	Current	Temperature change (2 weeks)
NINO3	-0.5	-0.5	no change
NINO3.4	-0.2	-0.3	0.1 °C cooler
NINO4	+0.1	+0.3	0.2 °C warmer

Baseline period 1961–1990.

