



CLIMATE ALERT BULLETIN (BAC)

CPPS

SUMMARIZED VERSION

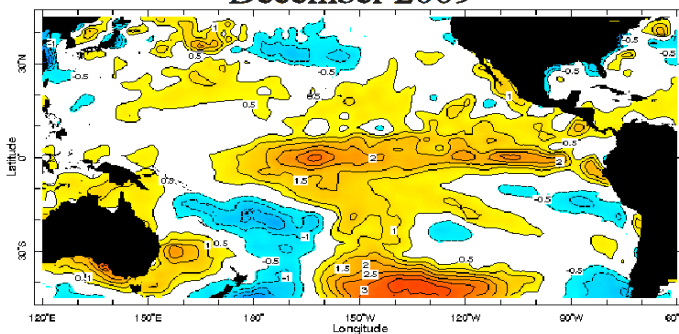
JANUARY 2010

BAC 232

In January the Surface Sea Temperature Anomaly (SSTA) presented positive anomalies within the range of 1, 0 and 3, 0°C, as a result of the development of a weak “El Niño” event in our region. In the western coast of South America warm conditions of air and sea temperature were recorded, but with weaker intensity than the previous month. The mean sea level anomaly was positive, especially in the Central Pacific, which propagated to the western zone of the Pacific where positive anomalies of the level of the sea were also observed. The sea surface temperature anomalies corresponding to the four monitoring areas of “El Niño” presented the following values of positive temperature anomalies, in the Western Pacific (“El Niño” Region 4), 1, 3°C; in the Central Pacific (“El Niño” Regions 3.4 and 3), of 1,5 and 0, 8° C respectively, and in the Eastern Pacific (“El Niño” Region 1+2) 0, 3°C. The subsurface positive sea temperature anomalies are still present. The warm nucleus of anomalies appeared towards the Eastern edge of the Pacific, with positive values up to 5,0 °C, between depths of 50 to 100 m.

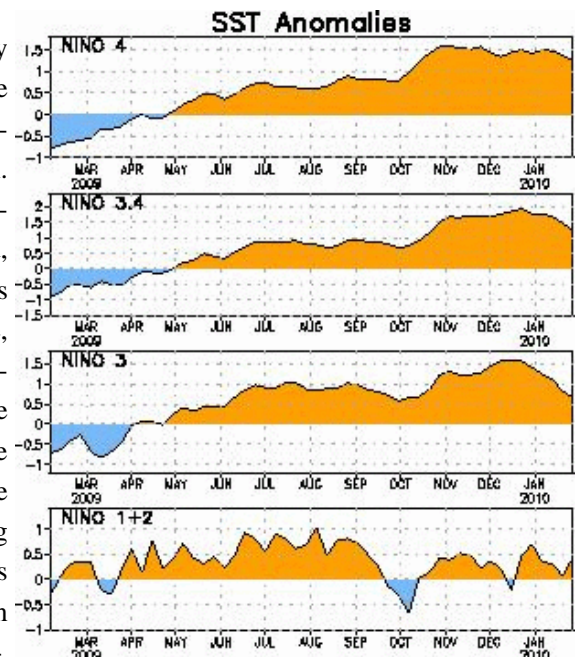
The mean sea level maintained the positive anomalies slightly smaller than the previous month in the Southeastern Pacific. In the Sea Level stations of Peru the positive anomalies oscillated between 10 cm and 24 cm and in front of Ecuador presented around 12 cm of increase.

**Sea Surface Temperature Anomaly (°C)
December 2009**



27 Dec 2009 - 2 Jan 2010

**SEA SURFACE TEMPERATURE
ANOMALIES, JANUARY 2010**

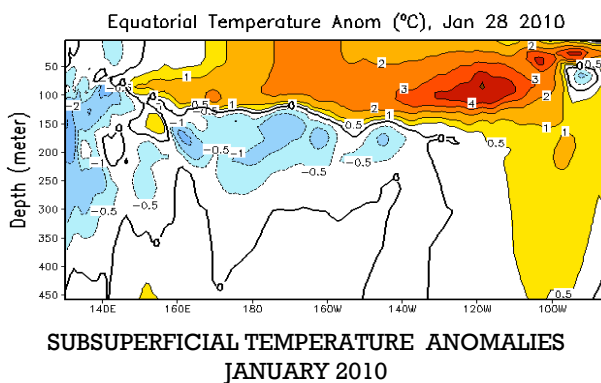


**SEA SURFACE TEMPERATURE ANOMALIES
FOR EL NIÑO REGIONS**

The Southern Oscillation Index (SOI) for the month maintained its negative phase with a value of 1, 5. The Intertropical Convergence Zone (ICZ) appeared as a dispersed band over the Central Pacific all the way to the Eastern Pacific with its central averaged axis located at 5° N. In the region of the South east Pacific the surface winds had a South and South-east component; with respect to the speed the anomalies were positive between 0,5 and 2,0 m/s.



Considering the thermal behavior of the Equatorial Pacific and the results of some numerical models, it is anticipated that the SST positive anomalies will persist in February, especially in the Eastern and Central Pacific Ocean. The numerical model simulations indicate the presence of a warm event (El Niño) of moderate to weak intensity, which will continue during the next months of 2010, approaching at the end of the period to neutral values. The present conditions in the region of the Southeastern Pacific are associated with the occurrence of a warm event (El Niño). In Colombia and Chile the SST presented values near their historical averages, whereas in Ecuador and Peru, the positive anomalies of SST decreased and in most of the stations they approached to its historical averages. As far as the level of the sea, this variable maintains its increase but in smaller magnitude than the previous month.



SUBSURFICIAL TEMPERATURE ANOMALIES
JANUARY 2010

Perspective for the next weeks

GLOBAL

Taking into account the predictions from several numerical models, as well as the behavior of the main oceanic and atmospheric indicators, it is anticipated that continue the oceanic and atmospheric conditions in the Tropical Pacific ocean, own of the development of a weak warm event (El Niño), which would reach its maximum development in the first trimester of the present year. Consequently the positive anomalies of the SST will be present and of equal way at subsurface level the heating of the sea will persist; being highly recommendable to maintain a careful pursuit of the evolution as well as its future repercussions on the climate of the region of the South east Pacific.

REGIONAL

In agreement with the pursuit of the ocean-atmospheric conditions in the South east Pacific Ocean, executed by Program ERFEN (integrated by National Committees ERFEN of Colombia, Chile, Ecuador and Peru) and coordinated by the CPPS it is anticipated that during the next months, in the sector of the South eastern Pacific, the values as much of the sea surface temperature as of the air continue being increased in agreement with the seasonality and that the positive anomalies fall and they approach to values of neutrality.

Institutions that collaborate in this bulletin:

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