



CLIMATE ALERT BULLETIN (BAC)

CPPS

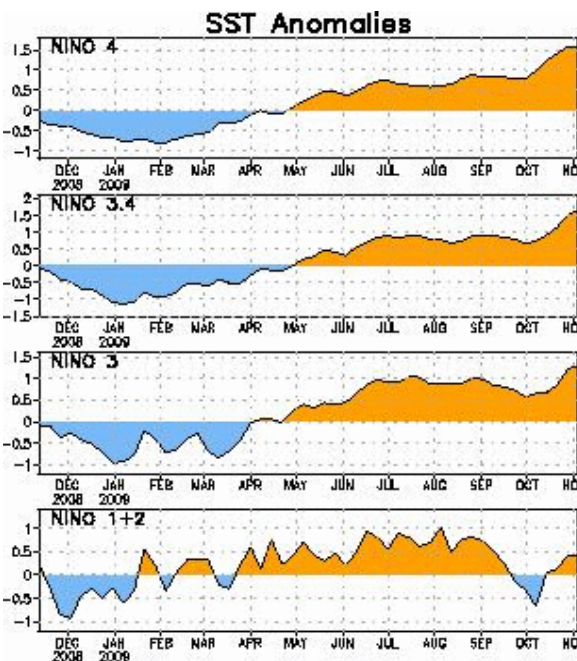
SUMMARIZED VERSION

OCTOBER 2009

BAC 229

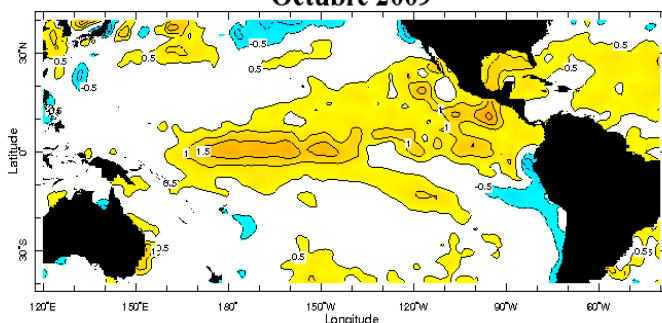
In October like in the previous month, the Sea Surface Temperature in the Equatorial Pacific continued showing positive anomalies around 1, 0°C. On the other hand, the temperature of the sea next to the coast of South America, maintained negative the anomalies previously reported; nevertheless one is due to mention, that as of the second fortnight of October, at coastal level, as much begins a slow increase of the temperature of the sea at surface as subsurface. Therefore, the tendency to the reduction of the temperature of the sea, observed from August to half-full of October approximately, seems to have entered its final stage, preparing the oceanographic conditions for the seasonal change that would occur as of December. The anomaly of the Sea Surface Temperature in the “El Niño” regions during the last week of October was increased, presenting the following values; in the region of the Western Pacific (El Niño Region 4) it was of 1.6°C; in the Central Pacific (El Niño Region 3. 4) 1.5°C and, in the region of the Eastern Pacific (El Niño Region 1+2), it returned to positive values of 0.4°C.

The Intertropical convergence zone stayed during most of the month around 7°N, exerting greater influence on the zone of Central America. In the region of the South East Pacific the surface winds had a South and South-East direction; as far as the speed the positive anomalies predominated, that fluctuated between 0.2 to 1.2 m/s. Taking into account the present thermal behavior from the Equatorial Pacific, as well as the results of the most excellent numerical simulation models, are anticipated that for the next month the present heating of the Tropical Pacific Ocean stays; whereas in the Eastern edge of the Pacific Ocean, normal values or slightly superiors appear. In addition, the majority of the models of numerical simulation continue indicating the development of an event El Niño of moderate intensity, in the sector of the Equatorial Pacific that would reach its maximum development during the period December 2009 - February 2010. In relation to the ocean-oceanographic conditions of the region of the South east Pacific, with the exception of Colombia that shows that the effects of the present phenomenon of El Niño have become well-known in the behavior of the temperature of the air and in the registered totals of rain in most of the country; another region affected by El Niño has been the South zone of Chile, whose precipitations under the normal value have been the most important signal until the moment. The rest of the coastal region of the South East Pacific does not show significant signals of the present warm event.



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

**Anomalía de la Temperatura Superficial del Mar (°C)
Octubre 2009**



Oct. 2009

**SEA SURFACE TEMPERATURE
ANOMALIES, OCTOBER 2009**



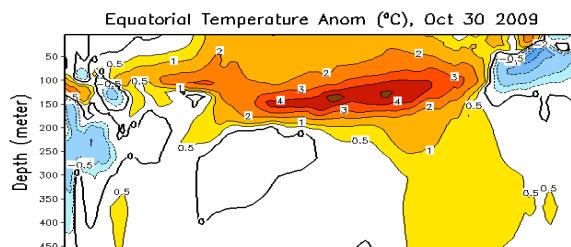
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At subsurface level, the positive anomalies of the sea temperature continued present, being located a great warm nucleus in the sector of the Central – Eastern Pacific with positive values until 4.0°C, located between 100 and 200 m of depth. In the Eastern edge of the Pacific it is possible to see, from the surface to 100m of depth approximately, the presence of negative anomalies of -0.5°C, in a more reduced area in relation to the previous month.

The Mean Sea Level in the South East Pacific during the month maintained the tendency observed in previous months to present values by above of its normal patterns against the coasts of Ecuador (around 10.0cm) and Peru (between 3.0 cm 8.0 cm).

From October 2006, the Index of Oscillation of South (IOS) was not reaching a as low value as the one of this month, with -1.7. The central axis of the Intertropical Convergence Zone (ITCZ) in the Eastern sector of the Pacific stayed between 6° and 8°N with moderate convective activity on Central America.

During the month the surface winds, in the region of the South east Pacific predominated of the South and the South-east, with speeds that slightly surpassed the climatologic average in 1.0 m/s.



SUBSURFICIAL TEMPERATURE ANOMALIES
OCTOBER 2009

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 the oceanographic conditions continue in the Tropical Pacific, own of the development of an event “El Niño”, which could reach its maximum development during the first trimester of the next 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, mainly in the region of the Central Equatorial Pacific; 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 for November it is anticipated that in the sector of the South East Pacific the values as much of the Sea Surface Temperature as the one of the air, they stay fluctuating around the normal with slight tendency to the increase and that the present heating of waters in the Central Pacific will not exert major influences on the region of the South East Pacific. At the moment, conditions still considered like neutral exist; with the exception of Colombia that has reported an increase of the temperature of the air as well as a noticeable rain deficit and Chile with an increase by on the normal thing in precipitations of the South zone.

Institutions that collaborate in this bulletin:



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