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**World Meteorological Organization**

# EL NIÑO/LA NIÑA UPDATE

## Current Situation and Outlook

***Near-neutral conditions of air-sea interactions currently prevail in the tropical Pacific. These are expected to continue at least through the remainder of 2008. Historically, the normal period for development of El Niño or La Niña is March-May, so forecasters will be watching for any signs of such development. At this time, it is too early to derive reliable indicators on possible El Niño or La Niña development during March-May 2009.***

Taking the Pacific basin as a whole, near-neutral El Niño-Southern Oscillation conditions have prevailed since mid-year. Any slight increased risk that an El Niño might develop late in 2008 has receded, as surface waters remain only marginally warmer than normal in the central and eastern Equatorial Pacific, and no strongly organized large-scale sub-surface warming has emerged.

Forecast models are in general agreement that near-neutral conditions will prevail through the remainder of 2008, and that there is no substantial risk of El Niño or La Niña through the remainder of 2008 and indeed into early 2009. However, confidence in projections into early 2009 carry increased uncertainty. Expert interpretation refrains from drawing any robust conclusions at this time about the likelihood of El Niño or La Niña development during the historically favoured time of year of March-May. Thus, over the next months, tropical Pacific conditions and forecast models will be closely monitored for any signs of possible changes in early 2009.

In the current absence of El Niño or La Niña conditions in the Pacific, users should not lower their guard against the possibility of risks of climate extremes during the next few months. Users must keep in mind that many climate extremes can develop independently of El Niño and La Niña, under the influence of other region-specific systems. Users should therefore consult their respective National Meteorological and Hydrological Services and regional climate institutions for more specific climate outlooks and follow-up updates.

In summary:

- Near-neutral conditions have prevailed since mid-year 2008.

- Models and expert interpretation are in good agreement that near-neutral conditions are expected to continue at least to the end of 2008 and indeed into early 2009.

- March-May is historically a preferred time for El Niño or La Niña development, so observations and forecasts for March-May 2009 will be carefully monitored over the coming months for any possible signs of development.

- It is important to appreciate that periods like this one when El Niño and La Niña conditions are absent, do not necessarily herald fewer climate extremes. It is still possible for such extremes to develop under the influence of region-specific systems. Therefore users should continue to deploy good risk management practices and consult local and regional climate outlooks.

The situation over the tropical Pacific will continue to be carefully monitored and timely updates of any new developing anomalies provided. More detailed interpretations of regional climate fluctuations will be generated routinely by the climate forecasting community over the coming months and will be made available through National Meteorological and Hydrological Services. For web links of the National Meteorological and Hydrological Services, please visit http://www.wmo.int/pages/members/members_en.html.

### *El Niño/La Niña Background*

**Climate Patterns in the Pacific**

Research conducted over recent decades has shed considerable light on the important role played by interactions between the atmosphere and ocean in the tropical belt of the Pacific Ocean in altering global weather and climate patterns. During El Niño events, for example, sea temperatures at the surface in the central and eastern tropical Pacific Ocean become substantially higher than normal. In contrast, during La Niña events, the sea surface temperatures in these regions become lower than normal. These temperature changes are strongly linked to major climate fluctuations around the globe and, once initiated, such events can last for 12 months or more. The strong El Niño event of 1997-1998 was followed by a prolonged La Niña phase that extended from mid-1998 to early 2001. El Niño/La Niña events change the likelihood of particular climate patterns around the globe, but the outcomes of each event are never exactly the same. Furthermore, while there is generally a relationship between the global impacts of an El Niño/La Niña event and its intensity, there is always potential for an event to generate serious impacts in some regions irrespective of its intensity.

**Forecasting and Monitoring the El Niño/La Niña Phenomenon**

The forecasting of Pacific Ocean developments is undertaken in a number of ways. Complex dynamical models project the evolution of the tropical Pacific Ocean from its currently observed state. Statistical forecast models can also capture some of the precursors of such developments. Expert analysis of the current situation adds further value, especially in interpreting the implications of the evolving situation below the ocean surface. All forecast methods try to incorporate the effects of ocean-atmosphere interactions within the climate system.

The meteorological and oceanographic data that allow El Niño and La Niña episodes to be monitored and forecast are drawn from national and international observing systems. The exchange and processing of the data are carried out under programmes coordinated by the World Meteorological Organization.

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