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Climate Prediction Center

Site Map

News

Organization

Search

Go

CPC Search

About Us

Our Mission

Who We Are

Contact Us

CPC Information

CPC Web Team

HOME > Expert Assessments > Experimental East Pacific Hurricane Outlook

COPY FOR YOUR
INFORMATION**NOAA PRESS RELEASE****NOAA: 2004 *Experimental* East Pacific Hurricane Outlook**

Issued: 17 June 2004

Realtime monitoring

of tropical East Pacific conditions can be obtained [here](#)Realtime monitoring of tropical Atlantic conditions can be obtained [here](#)**Send us your comments about this product****SUMMARY**

There is a 45% probability of a below normal tropical eastern North Pacific hurricane season during 2004, a 45% probability of near-normal season, and only a 10% probability of an above-normal season, according to a consensus of scientists at the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center (CPC), the Hurricane Research Division (HRD) and the National Hurricane Center (NHC). See Background Information for NOAA's definitions of above-, near-, and below-normal seasons.

The 2004 tropical eastern North Pacific outlook calls for 13-15 tropical storms (average is 15 to 16), with 6-8 becoming hurricanes (average is 9), and 2-4 becoming major hurricanes (average is 4 to 5). This predicted activity is based on an expected continuation of ENSO-neutral conditions through August, combined with the overall reduced hurricane activity observed since 1995.

This is the second year that NOAA has issued an experimental outlook for the eastern North Pacific hurricane region, which covers the eastern North Pacific east of 140°W. Official hurricane outlooks for this region are expected to begin with the 2005 season.

DISCUSSION

1. Expected Activity - **45% Chance Below Normal, 45% Chance Near Normal, 10% chance Above Normal**

An important measure of the overall seasonal activity is NOAA's Accumulated Cyclone Energy (ACE) index, which accounts for the collective strength and duration of tropical storms and hurricanes during a given hurricane season (see Background Information). The ACE index is also used to define the above-, near-, and below-normal seasons.

Most tropical storms that form in the eastern North Pacific track westward into open waters, sometimes reaching Hawaii and beyond. An additional one to two tropical storms either head northward or recurve toward western Mexico, and influence the summer precipitation amounts there. Regardless of their track East Pacific tropical storms and hurricanes can supply much needed moisture to the arid southwestern United States.

CAUTIONARY NOTES

1) It is important to recognize that it is currently not possible to confidently predict at these extended ranges the number or intensity of land falling hurricanes, or whether a particular locality will be impacted by a hurricane this season. Therefore, residents and government agencies of coastal and near-coastal regions should always maintain hurricane preparedness efforts regardless of the overall seasonal outlook.

FORECASTERS

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Site Map
News
Organization
Search



CPC Search [HOME](#) > [Monitoring and Data](#) > [Monitoring East Pacific Hurricane Potential](#)

- About Us
- Our Mission
- Who We Are

- Contact Us
- CPC Information
- CPC Web Team

Monitoring East Pacific Hurricane Potential

Updated June 1 - November 30

2004 Experimental East Pacific Hurricane Outlook

CPC uses sea surface temperatures, and wind speed, height and direction data in producing their hurricane outlooks and by the [National Hurricane Center](#) in issuing their advisories and short-term outlooks. At present, CPC does not yet issue extended outlook for the East Pacific Hurricane season. This page is intended to serve as a monitoring page for the East Pacific Hurricanes, similar to the Atlantic Hurricanes.

Animations

- [12-Week SST](#)
- [3-hrly IR Temperatures for 4 days - EastPacific+Atlantic](#)
- [High Res.1/2-hrly IR Temperatures for ~1 1/4 days - EastPacific+Gulf+Carribean](#)

Sea Surface Temperatures

- [Tropical Atlantic & Pacific \(Last week\)](#)
- [Pacific \(Last 4 weeks\)](#)
- [East Pacific \(Last 4 weeks\)](#)

Winds and Temperatures at Various Levels

[Time Longitude OLR Anomalies](#)
[Unfiltered](#)
[Intraseasonal](#)

[Time Longitude Velocity Potential Anomalies](#)
[5°N-5°S](#)
[10°-20°N](#)

[Time Longitude IR Temperatures](#)

[Observed and Forecast Vertical Wind Shear & 700-hPa Cyclonic Vorticity](#)

VARIABLES	Level	Level	Level
Heights & IR Temperatures (every 6 hours)	SLP	850	600
Heights & IR Temperatures (every 12 hours)	SLP	850	600
Heights & IR Temperatures (every 24 hours)	SLP	850	600
Streamlines, Winds & IR Temps (every 6 hours)	1000	600	200
Streamlines, Winds & IR Temps (every 12 hours)	1000	600	200
Streamlines, Winds & IR Temps (every 24 hours)	1000	600	200
Heights & Vorticity (every 6 hours)	SLP	850	600

**200-hPa
STREAMFUNCTION &
ANOMALIES**
Last 10 Days
Last 30 Days

Heights & Vorticity (every 12 hours)	SLP	850	600
Heights & Vorticity (every 24 hours)	SLP	850	600
Heights & Wind Speed (every 6 hours)	SLP	850	600
Heights & Wind Speed (every 12 hours)	SLP	850	600
Heights & Wind Speed (every 24 hours)	SLP	850	600
Wind Speed & Direction (every 6 hours)	1000	850	600
Wind Speed & Direction (every 12 hours)	1000	850	600
Wind Speed & Direction (every 24 hours)	1000	850	600
Winds & Anomalies (Last 10 Days)	1000	700	200
Winds & Anomalies (Last 30 Days)	1000	700	200
Heights & Anomalies (Last 10 Days)	SLP	500	200
Heights & Anomalies (Last 30 Days)	SLP	500	200

Precipitable Water & 1000-hPa Circulation	<u>every 6h</u>	<u>daily</u>	<u>5day mean</u>
200-850 hPa Vertical Wind Shear & 1000 hPa Circulation	<u>every 6h</u>	<u>every 12h</u>	<u>every 24h</u>
200-850 hPa Vertical Wind Shear & IR Temperatures	<u>every 6h</u>	<u>every 12h</u>	<u>every 24h</u>

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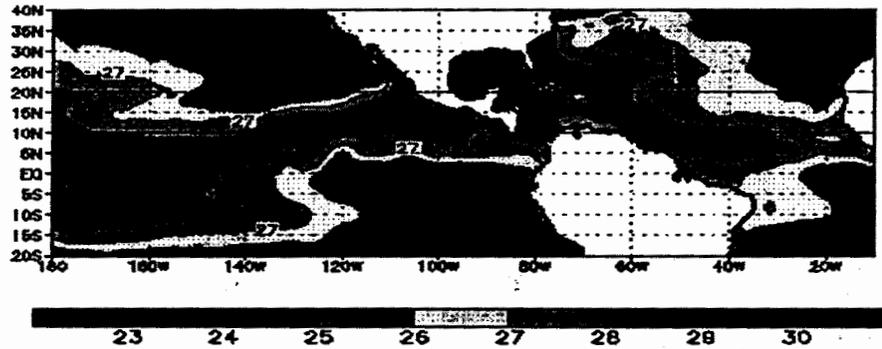
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[Site Map](#)
 [News](#)
 [Organization](#)
 Search

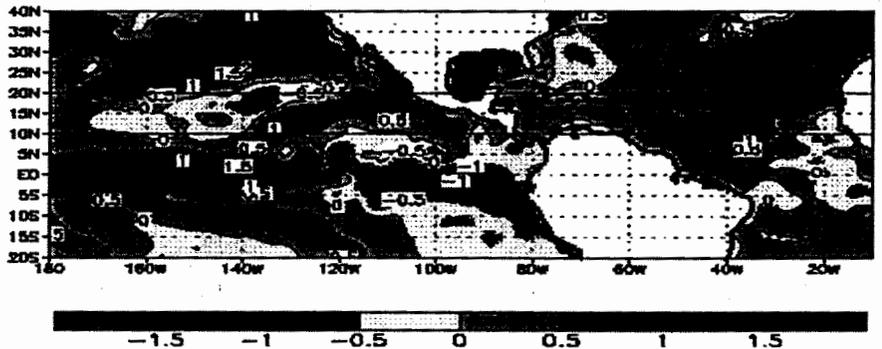
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- About Us**
[Our Mission](#)
[Who We Are](#)
- Contact Us**
[CPC Information](#)
[CPC Web Team](#)

[HOME](#) > [Monitoring and Data](#) > [Monitoring East Pacific Hurricane Potential](#) > [Sea Surface Temperature Animation](#)

WEEKLY SEA-SURFACE TEMPERATURE
Centered on 28 JUL 2004
Mean



Anomalies



CLIMATE PREDICTION CENTER/NCEP

Weekly averaged sea surface temperatures (top, °C) and anomalies (bottom, °C) for the past twelve weeks. SST analysis is the optimum interpolation (OI) analysis, while anomalies are departures from the adjusted OI climatology (Reynolds and Smith 1995, *J. Climate*, 8, 1571-1583).

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Site Map

News

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Search

CPC Search

About Us

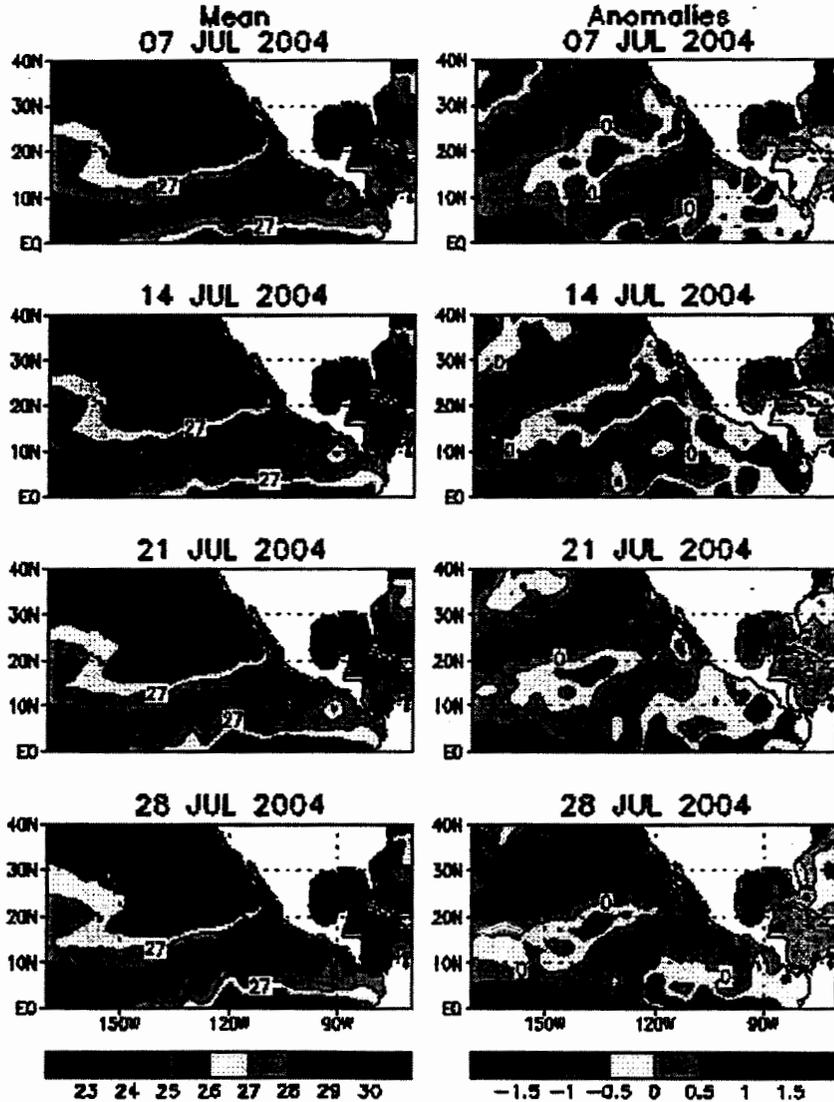
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Who We Are

Contact Us

CPC Information
CPC Web Team

HOME > Monitoring and Data > Monitoring East Pacific Hurricane Potential > Weekly Sea Surface Temperatures

WEEKLY SEA-SURFACE TEMPERATURE



Weekly averaged sea surface temperatures (left, °C) and anomalies (right, °C) for the past four weeks. SST analysis is the optimum interpolation (OI) analysis, while anomalies are departures from the adjusted OI climatology (Reynolds and Smith 1995, J. Climate, 8, 1571-1583).

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Site Map

News

Organization

Search

Go

CPC Search

About Us

Our Mission

Who We Are

Contact Us

CPC Information

CPC Web Team

HOME > Expert Assessments > ENSO Diagnostic Discussion

EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by

CLIMATE PREDICTION CENTER/NCEP

July 8, 2004

Synopsis: ENSO-neutral conditions are expected to continue during the next 3 months.

Oceanic and atmospheric conditions in the Pacific basin continued to reflect the neutral phase of the ENSO cycle during June 2004. Sea surface temperatures were warmer-than-average in the western equatorial Pacific (Niño 4 region), near average in the central equatorial Pacific (Niño 3.4 and Niño 3 regions) and cooler-than-average in the eastern equatorial Pacific (Niño 1+2 region) during the month ([Fig. 1](#)). Positive SST anomalies greater than +0.5°C (~1°F) were found between 160°E and 150°W, while negative SST anomalies less than -0.5°C were found between 95°W and the South American coast ([Fig. 2](#)).

During the past several months, positive SST anomalies have persisted in the west-central equatorial Pacific (150°E-160°W), low-level easterly wind anomalies (enhanced east-to-west flow) have been observed over the central equatorial Pacific, and low-level westerly anomalies have persisted over the western equatorial Pacific ([Fig. 3](#), top). These features have favored persistent enhanced tropical convection (negative OLR anomalies) in the region 140°E-180°W ([Fig. 3](#), bottom). The low-level easterly wind anomalies over the central equatorial Pacific have also contributed to a steeper-than-average thermocline slope in the upper ocean, which is reflected in the pattern of subsurface temperature anomalies [positive (negative) in the central-western (eastern) equatorial Pacific] ([Fig. 4](#)). Both the surface and subsurface temperature fields showed trends toward near-average conditions (decreased magnitude of the anomalies) during June.

Considerable intraseasonal variability (MJO activity) in recent months has resulted in week-to-week and month-to-month variability in many atmospheric and oceanic indices. During mid-June through early July the easterlies weakened in many areas of the equatorial Pacific, as enhanced

convection shifted eastward from the Indian Ocean to the western tropical Pacific. The greatest wind and convection anomalies occurred north of the equator in the western Pacific, associated with two typhoons. It is too early to determine whether this event will have any significant impact on the thermal structure of the equatorial Pacific Ocean.

Slightly more than half of the statistical and coupled model forecasts indicate near neutral conditions in the tropical Pacific (Niño 3.4 SST anomalies between -0.5°C and $+0.5^{\circ}\text{C}$) through the northern summer and fall 2004. The remaining forecasts indicate borderline El Niño conditions (Niño 3.4 SST anomalies slightly greater than $+0.5^{\circ}\text{C}$) will develop within the next 3-6 months. Given the recent trends and observed oceanic and atmospheric patterns discussed above, ENSO-neutral conditions are expected to continue for the next 3 months (through September 2004).

This discussion is a consolidated effort of NOAA and its funded institutions. Weekly updates for SST, 850-hPa wind, OLR and features of the equatorial subsurface thermal structure are available on the Climate Prediction Center web page at <http://www.cpc.ncep.noaa.gov> ([Weekly Update](#)). Forecasts for the evolution of El Niño/La Niña are updated monthly in the [Forecast Forum](#) section of CPC's Climate Diagnostics Bulletin. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send your e-mail address to:

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