



**Western Region Technical Attachment
No. 92-05
January 28, 1992**

**EL NINO/SOUTHERN OSCILLATION (ENSO)
DIAGNOSTIC ADVISORY 91/08**

CLIMATE ANALYSIS CENTER/NMC

[Editor's Note: This following Technical Attachment is a Diagnostic Advisory on the El Nino/Southern Oscillation (ENSO) situation, issued by the Climatic Analysis Center of NMC.]

Warm (ENSO) episode conditions continued to evolve throughout the equatorial Pacific in November. Low-level westerly anomalies prevailed throughout the equatorial Pacific, as sea surface temperature (SST) anomalies increased in the Niño 3 region and in many other areas of the tropical eastern and central Pacific (Fig. 1b). Increases in SST anomalies along the South American coast in late October were sustained throughout November, with some coastal stations reporting positive anomalies of 2 to 3°C. Enhanced convection (negative outgoing long-wave radiation (OLR) anomalies), which developed over the central equatorial Pacific during late October, persisted and intensified during November. At the same time, positive OLR anomalies persisted over sections of Indonesia and the Philippines. This pattern of OLR anomalies is a feature generally observed during the mature phase of warm (ENSO) episodes.

The rapid evolution toward mature warm episode conditions that has been observed since September is similar to that which occurred in 1986, as the 1986-1987 ENSO episode developed. During November 1986, enhanced convection developed in the central equatorial Pacific, accompanied by the development of anomalous subtropical and extratropical upper tropospheric circulation features generally found during warm (ENSO) episodes. Some of these features, such as the upper tropospheric anticyclonic anomaly couplet straddling the equator near the date line, are weakly indicated in the analysis for November 1991.

During November 1991, there was a tendency for the enhanced equatorial convection and low-level westerly anomalies to shift eastward relative to their November 1986 counterparts. It is still too early to tell if this eastward shift will be a persistent feature of this warm episode. However, data from early December indicate a continuation of this trend, with the development of a tropical storm in the vicinity of American Samoa (15°S, 170°W) and strong low-level westerly anomalies extending as far east as 160°W near 5°S.

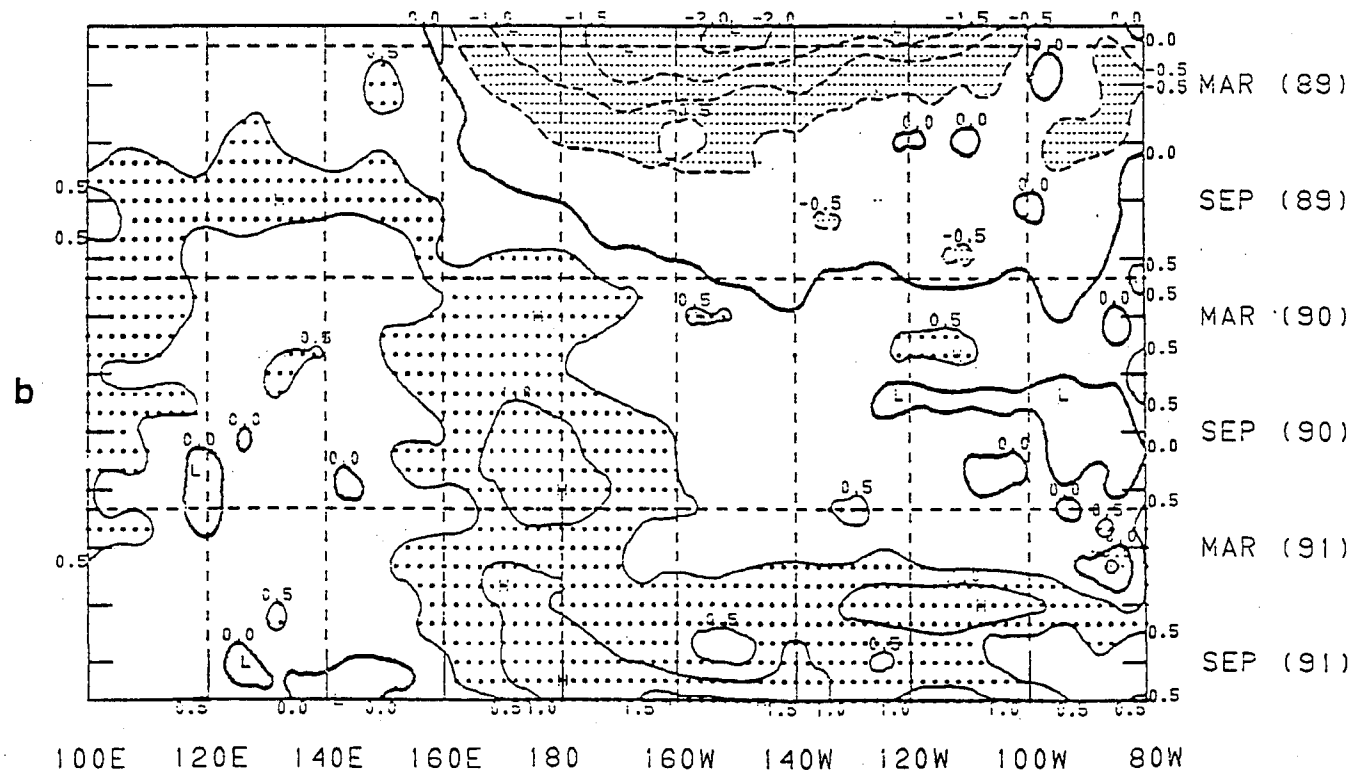
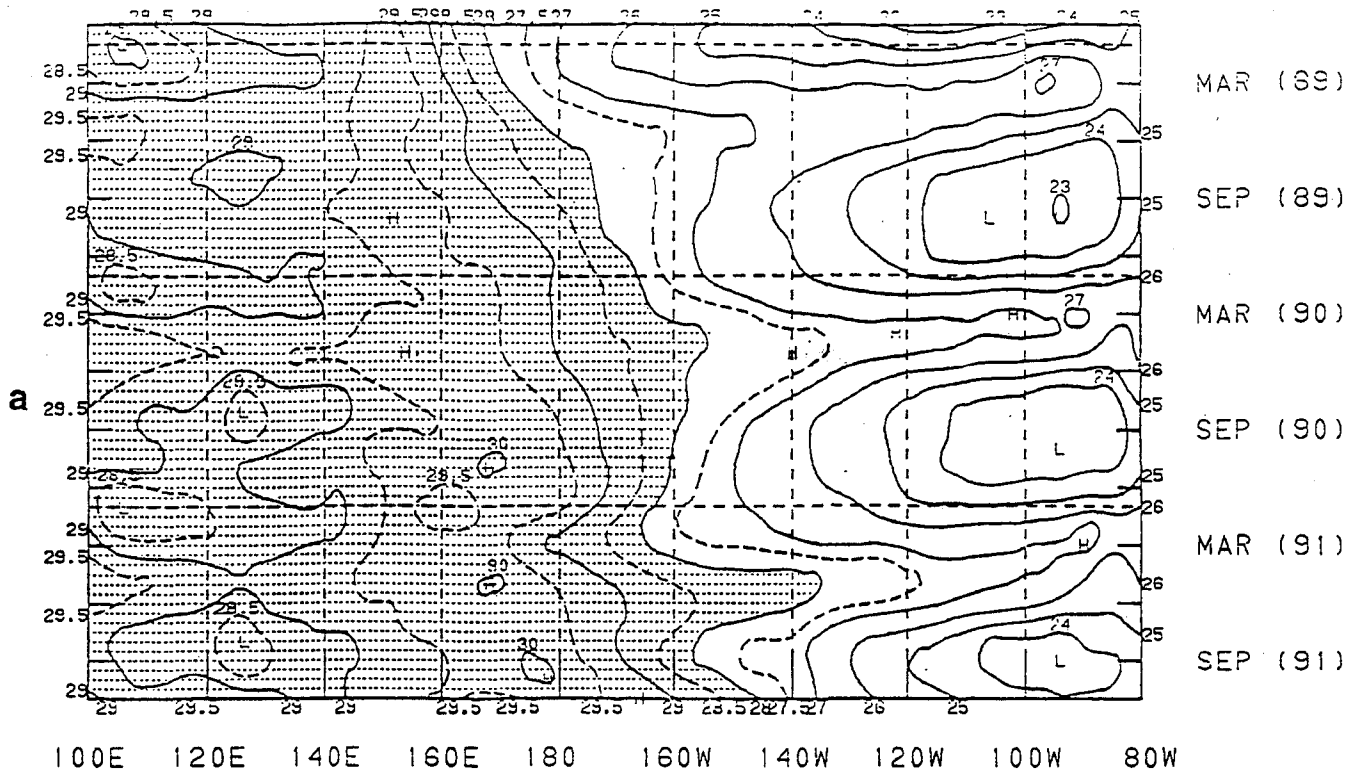


FIGURE 1. Time-Longitude Section of Monthly Sea Surface Temperature, a) Mean and b) Anomalous, for 5°N–5°S. Contour interval is 1°C and 0.5°C, respectively. SST values greater than 28°C and anomalies less than -0.5°C are shaded. Stippled areas indicate anomaly values greater than 0.5°C. Anomalies are computed based on the COADS/ICE climatology (Reynolds, 1988, *J. Climate*, 1, 75-76).