



## Abstract View

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# Interannual Variation in Net Heating at the Surface of the Tropical Pacific Ocean

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### ABSTRACT

Interannual variations of net surface heating of the tropical Pacific Ocean are analyzed for the period 1957–76. Special emphasis is given to exploring the relationship between these variations and those in sea temperature associated with El Niño/Southern Oscillation. The analyses include eigenvector analysis, composites of the net heating for various phase of El Niño, and time series analysis of various measures of the variability. The results indicate large-scale patterns of variability dominated by time scales greater than one year. A link between the large-scale variations of sea temperature and net surface heating is evident from each set of analyses. In general, anomalously high heating appears to be associated with cold water. However, it also seems apparent that greater than average heating of the ocean persists for several months into the periods of El Niño when sea temperatures are rising rapidly. Thus it is hypothesized that net surface heating contributes to the development of the early stages of an El Niño warm period.

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