

Q. How does the PDO affect climate?

A. PDO events change the odds for the type of seasonal climate experienced over the Pacific and North America. The switch from a warm to a cool PDO phase favors a winter storm track that more consistently points to the Pacific Northwest, which in turn favors relatively cool-wet winter and spring weather in the Northern United States and Southern Canada, and relatively warm-dry winter and spring weather in the southern US and northern Mexico.

Q. How does the change in PDO phase affect weather and climate in southern California?

A. Southern California is likely to be drier as storms are moved north by the jet stream, but there still can be El Niño (wet) years. See the NOAA Climate Prediction Center for seasonal forecasts (<http://www.cpc.ncep.noaa.gov/>).

Q. What is the connection between ocean height as observed by TOPEX/Poseidon and Jason-1 and ocean temperature?

A. When the surface layer of the ocean (the upper 200-500 meters) is warmed, it expands and, thus, results in a higher surface.

Q. Is the PDO part of global warming?

A. We don't know yet. The PDO, like the El Niño Southern Oscillation (ENSO), appears to be a completely natural phenomenon, yet it's not known how human-caused global warming might influence the future behavior of the PDO and ENSO.

Q. I have heard that some scientists do not agree that the PDO has switched. What does this mean?

A. Most scientists recognize the PDO as a long-term event in the ocean, but some say it's too soon to tell whether it has switched phases.

## Pacific Decadal Oscillation

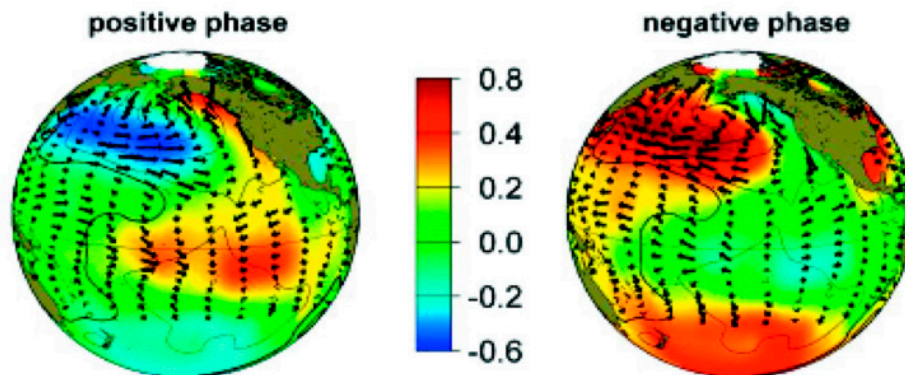


Image courtesy of Steven Hare and Nathan Mantua, University of Washington; units are degrees Celsius

[http://tao.atmos.washington.edu/pdo/img/pdo\\_warm\\_cool.jpg](http://tao.atmos.washington.edu/pdo/img/pdo_warm_cool.jpg)

<http://sealevel.jpl.nasa.gov/science/pdo.html>



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