

El Niño 2015/16: A Historical Perspective

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Introduction

This page was created to provide data and information to users based on historical El Niño events. This is not a prognostic tool, but a resource to help understand potential impacts of the current El Niño across the United States based on past events. This website and the resources provided will be continually updated throughout the cool season, so please bookmark this page for future reference to ensure you are accessing the most up-to-date information.



- To help understand the potential impacts of this El Niño event, six analog events were chosen due to their similarities in magnitude (as measured by the Oceanic Niño Index), duration, and atmospheric coupling that is forecast for this event. Those previous El Niño events include: 1957-58, 1965-66, 1972-73, 1982-83, 1991-92, and 1997-98.
- Individual and composite temperature and precipitation maps were created based on these six events. Historical comparisons are based on data back to 1950.
- For some months and seasons, temperature and precipitation varied greatly across the country among these six events, highlighting that no two El Niño events are the same.
 - For example, the composite December-February precipitation maps show that northern
 California has tended to be wetter than average during strong El Niño events, but that was

not the case for the specific El Niño events of 1965/66 and 1991/92. The El Niño events during 1957/58, 1982/83 and 1997/98 were exceptionally wet for northern California, which boosted the six event composite values.

- According to the temperature and precipitation outlooks from NOAA's Climate Prediction Center, the seasonal forecast resembles the six strong El Niño event composites. While the above-average precipitation forecast is good news for drought conditions in California, the state would need close to twice its normal October-May rainfall for the drought to completely end and that is unlikely.
- Other factors and teleconnections often play a role in winter weather. Their influence can impact seasonal temperature and precipitation outcomes in the United States. They include:
 - The Arctic Oscillation, which influences the number of arctic air masses that penetrate into the South and nor'easters on the East Coast.
 - The Madden-Julian Oscillation, which can impact the number of heavy rain storms in the Pacific Northwest.
- In addition to general El Niño information, static maps, GIS shapefiles, and climate division timeseries and data are available. Additional El Niño monitoring products will be added in the coming months.

For the most up-to-date information on current El Niño conditions, please visit the Climate Prediction Center's ENSO page and NCEI's ENSO monitoring teleconnections page.

