



2015: Waiting on El Niño

If it develops, anticipate warmer winter in the North and colder weather in the Southern tier.

by Kindra Gordon

Water temperatures in the Pacific Ocean trended much warmer throughout September 2014, which led the Climate Prediction Center (CPC) to announce on Oct. 9, 2014, that an El Niño weather pattern is likely developing.

El Niño, which is Spanish for "little boy," occurs about every three to five years and will typically reach peak strength in December and affect weather into April. Climatologists predict that the 2015 El Niño effects will include warmer-than-average temperatures over Western and Central Canada and the Western and Northern United States. Additionally, wetter-than-average conditions are likely over portions of the Southern U.S. and along the East Coast, while drier-than-average conditions can be expected in the Midwest and the Pacific Northwest.

For California, where nearly 60% of the state is suffering from extreme drought, CPC's Mike Halpert says that although this El Niño is not likely to be as strong as some in the past — which would mean ample rainfall — he does predict: "...there is at least a 2-in-3 chance that wintertime precipitation will be near or above average throughout the

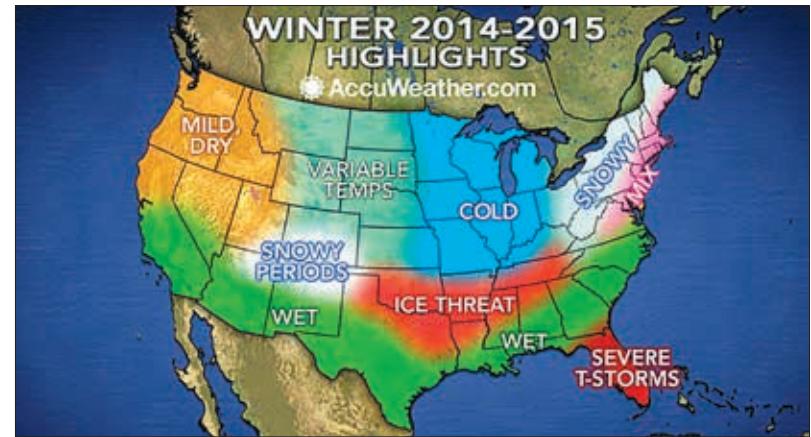
state. However, complete drought recovery is unlikely. With such widespread, extreme deficits, recovery will be slow."

Specific to temperatures, Halpert says the outlook favors a warmer-than-average winter in a band extending from the West Coast through most of the Intermountain West and across the U.S.-Canadian border to New England. Colder-than-average conditions are favored in the South Central and Southeastern states.

The Precipitation Outlook favors above-average precipitation across the Southern tier of the country, from the southern half of California, across the Southwest, South Central and Gulf Coast states and Florida, and along the Eastern Seaboard to Maine. Below-average precipitation is forecast for the Pacific Northwest and the Midwest.

The U.S. Seasonal Drought Outlook announced in mid-October and valid through January 2015 reflects the El Niño forecast and suggests drought improvement in portions of California, the Central and Southern Plains, the Desert Southwest, and portions of New York, Connecticut, Rhode Island and Massachusetts.

However, it also suggests, drought is likely to persist or



intensify in portions of California, Nevada, Utah, Idaho, Oregon and Washington. As well, new drought development is likely in northeast Oregon, eastern Washington, and small portions of Idaho and western Montana because a dry signal during El Niño winters usually develops.

Almanac and AccuWeather forecasts

Of course, when it comes to weather forecasts, no one knows for certain how the winter will play out, and the 2015 edition of the "Farmers' Almanac" paints a much colder picture of winter than does the CPC.

The almanac says: "The winter of 2014-15 will see below-normal temperatures for about three-quarters of the nation. A large zone of very cold temperatures will be found from east of the Continental Divide to the Appalachians. The most frigid temperatures will be found from the Northern Plains into the Great Lakes. The coldest outbreak of the season will come during the final week of January into the beginning of February, when frigid arctic air drops temperatures across the Northern Plains to perhaps 40 below zero. As the frigid air blows across the Great Lakes, snow showers and squalls will drop heavy amounts of snow to the lee of the Lakes."

It goes on to predict: "No region will see prolonged spells of above-normal temperatures; only near the West and East Coasts will temperatures average close to normal."

Likewise, AccuWeather.com is anticipating a frigid winter in the Northeast. Its website says: "Cold air will surge into the Northeast in late November, but the brunt of the season will hold off until January and February. The polar vortex, the culprit responsible for several days of below-zero temperatures last year, will slip down into the region from time to time, delivering blasts of arctic air."

AccuWeather also predicts:

The Northern and Central Plains will endure roller-coaster temperatures. Fewer clipper systems than normal will reach down into the area, preventing high overall snow totals.

The drought will persist in the Northwest and northern California and ease slightly farther south.

Farther south, ice storms and snow events will threaten the Tennessee Valley and parts of the Southern Plains. Much of the South can prepare for a wet winter, with some severe weather encroaching on Florida. **HW**

The ups and downs of weather phases

El Niño and La Niña are opposite phases of what is known as the El Niño-Southern Oscillation (ENSO) cycle. The ENSO cycle is a scientific term that describes the fluctuations in temperature between the ocean and the atmosphere in the east-central Equatorial Pacific.

La Niña is sometimes referred to as the "cold phase" of ENSO and El Niño as the "warm phase" of ENSO. These deviations from normal surface temperatures can have large-scale affects not only on ocean processes but also on global weather and climate.

El Niño and La Niña episodes typically last nine to 12 months, but some prolonged events may last for years. They often begin to form between June and August, reach peak strength between December and April, and then decay between May and July of the following year. While their periodicity can be quite irregular, El Niño and La Niña events occur about every three to five years. Typically, El Niño occurs more frequently than La Niña. **HW**