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By Timothy Hurley

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Better keep your umbrella handy. Maybe not so much your winter coat. The National Weather Service announced Thursday that the islands likely will experience above-average rainfall this winter along with warmer-than-normal temperatures.

That's the consensus of weather models that indicate that neutral conditions in the El Nino Southern Oscillation (ENSO) global climate cycle are likely to persist through the spring.

In Hawaii that usually means wet weather.

Kevin Kodama, hydrologist with the National Weather Service in Honolulu, said eight of the top 10 rainiest wet seasons in Hawaii over the last 30 years occurred during ENSO neutral conditions. The wet season is from October to April.

The National Oceanic and Atmospheric Administration's Climate Prediction Center is saying the current neutral conditions are likely to stick around throughout winter and into the spring.

Kodama said the winter months could see some powerful storms as the models indicate that lowpressure circulation patterns could be interrupted to generate prolonged and unstable weather.

The situation, he said, will be exacerbated by above average sea surface temperatures that result in pumping lots of moisture into the atmosphere and causing intense rainfall.

"We could get some deep thunderstorm activity and lightning," he said. "During the winter these kinds of storms come with a higher frequency anyway. But this year there's an even greater possibility."

Kodama said Hawaii residents should be prepared to deal with some intense storms with the potential for lightning strikes and power outages. Avoid driving on roads with fast-flowing water and walking across flooded streams, he said.

And if you live in a floodprone area, have an evacuation plan in case floodwaters threaten your home.

On the positive side, Kodama said the plentiful rainfall should begin to eliminate drought conditions now largely affecting Maui and Hawaii counties.

Despite the potential for stormy weather, temperatures in Hawaii are expected to be warmer than average this winter, potentially matching the run of hot weather experienced here this summer.

The Climate Prediction Center gave Hawaii between a 60% and 70% chance of having aboveaverage temperatures. The figure represents the highest probability of warmer temperatures in the nation, where warmer weather is also expected to prevail in many areas. In fact, no part of the United States is favored to have below-average temperatures this winter, officials said.

Kodama said a key factor in creating warmer temperatures in Hawaii is above-average sea surface temperatures, a growing trend in recent years.

While there will be times when the islands experience a cold snap, he said, it likely won't last long before the temperature goes right back up.

"We may see a few days with lows in the 50s - if at all. We may not get down in the 50s," he said.

Thomas Giambelluca, director of the University of Hawaii's Water Resources Research Center, said research shows that temperature in Hawaii has been increasing over the past 100 years, and this year, since about May, temperatures have been extreme, with many records broken.

Giambelluca recently conducted a quick study of the Molokai Airport daily maximum temperature, counting the number of days over 90 degrees each year going back to 1949.

Most years had no days over 90 degrees, he said, while a few years had a few 90-degree days, reaching as high as 21 days in 1978.

"But for 2019, as of Sept. 25, Molokai Airport had already recorded 50 days with temperatures of 90 or greater!" Giambelluca said in an email. "This is just one example. This persistently hot weather has been happening all over the state."

The effects of human caused climate change are being seen in Hawaii and all over the world, he said, and the trend is expected to accelerate in the future, especially if humans do not curb emissions of greenhouse gases such as carbon dioxide.

"As this trend continues, exceptionally warm years such as this year will become more and more extreme," the professor said.

Kodama said Hawaii's dry season from May through September got off to an early start due to the lingering effects of El Nino, which generally causes winter drought in the islands.

All four counties suffered moderate to severe drought in May, followed by an unusual winterlike storm in June that eliminated drought conditions from Kauai to West Maui.

Drought came back quickly as dry conditions plagued Maui County from July to September and helped fuel brush fires on Maui.

Despite the drought, many locations recorded above-average rainfall, and the dry season turned out to be the seventh wettest in the last 30 years, Kodama said.

Hurley, T. 2019. "Incoming hot, rainy season," Honolulu Star-Advertiser, Oahu Publications Inc., 18 October, p. 2.