

Active hurricane season likely in store for isles

With a tropical storm forming Tuesday in the eastern Pacific earlier than ever recorded, can the first hurricane threat of the season be far behind? As a matter of fact, forecasters say Hawaii is likely to see an active hurricane season if signs of a developing El Nino continue to hold true.

“There’s an increasing chance of El Nino developing in the late summer or fall,” Hawaii state climatologist Pao-Shin Chu said Tuesday. “If that’s the case, it’s not good for us.” National Weather Service meteorologist Matt Foster said that while the Central Pacific Hurricane Center has yet to make its official forecast for the season, climate forecasters so far indicate that the trend is toward El Nino conditions. If that’s true, there is likely to be a greater number of tropical storms in our future.

The El Nino weather phenomenon occurs every two to seven years when warm Pacific Ocean water pools at the equator and ends up changing weather patterns around the world. In Hawaii, El Nino translates into summer heat, warmer ocean water, summer rainfall and a greater threat of tropical cyclones, followed by winter drought and large ocean swells.

Two years ago Hawaii endured one of the strongest El Nino episodes on record, and the islands saw weather anomalies in the extreme, including the wettest summer in 30 years, winter waves large enough to run the Eddie Aikau big-wave surfing contest and a record number of hurricanes plying the Central Pacific.

The Central Pacific hosts four to five named tropical storms in a typical year. But 2015 witnessed 14 named storms, including eight hurricanes, five of which became major

hurricanes. It was the most active season since reliable record keeping began in 1971.

Last year brought a weak La Nina episode – El Nino's polar opposite. But the Central Pacific still saw an above-average hurricane season with six tropical cyclones, probably due to a phenomenon involving residual warm water left over from the El Nino season.

Conditions are now considered neutral, and most experts weren't expecting such a quick turnaround for another El Nino year. In fact, the El Nino-La Nina-El Nino sequence in three successive years has occurred only once since 1950 – in the mid-1960s, according to the National Weather Service.

Chu, a meteorology professor at the University of Hawaii at Manoa, said among the indicators pointing to El Nino is the fact that current sea surface temperatures in the equatorial Pacific are a half-degree warmer on average than usual. It looks like there is a good chance it will develop into El Nino," he said.

Chu said the upcoming El Nino episode is highly unlikely to be as strong as the one in 2015, but it appears likely to arrive just in time to give Hawaii's peak hurricane season month of August an extra boost. "June and July will be crucial months to see how this El Nino develops," he said. "We will have to keep watch."

As for Tropical Storm Adrian, the storm that formed off the Central American coast Tuesday – a record six days before the start of the eastern Pacific hurricane season – experts say there is little, if any, relation to the Central Pacific hurricane season, which officially starts June 1.

National Weather Service officials said that during the last two months, strong warming occurred in the eastern Pacific Ocean near the west coast of Central and South America. That makes ideal conditions for tropical storm formation, they

said.

Phil Klotzbach, a hurricane researcher with Colorado State University, said there have been eight seasons since 1980 with named storms forming prior to May 20 in the northeast Pacific. Of those eight seasons, only three ended up well above average, he said, while the other five saw near- to below-average storms in the Central Pacific.

As of Tuesday night the National Weather Service predicted Adrian would move up the coast of Central America, growing into a hurricane by Friday and threatening Mexico by Sunday night.

Hurricane Iselle Aftermath

Many on Oahu think that hurricane Iselle was just another false alarm and that there was really nothing to worry about. Tell that to the folks in Puna, many of whom are still without food, water and electricity. As the following video shows, there are hundreds if not thousands of trees down, blocking roads and damaging houses. And this was only a category 1 storm. The trees down are mostly Albezia trees of which Manoa has more than its fair share.

Are you ready?

[Operation Puna video](#)

Get ready for Iselle and Julio, state officials warn

By Star-Advertiser staff

POSTED: 06:09 p.m. HST, Aug 04, 2014

LAST UPDATED: 07:12 p.m. HST, Aug 04, 2014

The state Department of Emergency Management advises residents to prepare a seven-day disaster supply kit as Hurricane Iselle and Tropical Storm Julio approach the Central Pacific and threaten Hawaii. Officials say the disaster kit should include enough of the following items to last for seven days:

- » Water: One gallon of water per person per day for seven days for drinking and sanitation;
- » Food: Non-perishable food that does not require cooking. Popular local foods such as Spam, corned beef and Vienna sausage;
- » Eating Utensils: Plates, mess kits, forks and chop sticks. Don't forget a non-electric can opener for canned foods.
- » Radio: Battery-powered or hand crank radio with NOAA Weather alert;
- » Light: Flashlight and/or a portable fluorescent or LED light;
- » Spare batteries;
- » First Aid: Get a first-aid kit and consider enrolling in a certified first aid, CPR and AED course;
- » Whistle: Important for signaling for help. A whistle carries much farther than the human voice and uses less energy than yelling;

- » Dust Mask: Helps to filter contaminated air;
- » Sanitation: Moist towelettes, toilet paper, 5-gallon bucket, garbage bags and plastic ties for personal sanitation;
- » Tools: Wrench or pliers to turn off utilities, duct tape;
- » Maps: Local area maps.
- » Prescription: Special medications and glasses.
- » Infant formula and diapers;
- » Pet food and extra water for your pet.

In addition, state emergency management officials advise residents to monitor local media reports. Emergency public information will be broadcast over TV and radio, and additional emergency information is available on NOAA weather radios which are available from many Oahu electronics and department stores.

Residents can also sign up to receive emergency email and text messages sent directly to your cell phone from Nixle. Go to www.nixle.com/dem to set up an account.

DEM will also issue information updates via [Twitter](#) and [Facebook](#). But DEM's Twitter and Facebook pages should not be used to request emergency assistance.

May 31st Makani Pahili

Hurricane Exercise



On May 3, 2014 the Honolulu county Department of Emergency Management, the State Civil Defense, The American Red Cross – plus a number of other federal, state and county and private agencies held the 2014 Makani Pahili Hurricane exercise. For Manoa, that included a major shelter exercise held at the Manoa Valley Church. Be Ready Manoa (BRM) members Jack Tsujimura, Gordon Loui, Betty Yee and Fred Fortin, all of whom are Amateur Radio operators or

Hams, participated in the event acting as radio communicators at the shelter for the American Red Cross and the Honolulu Department of Emergency Management. Also assisting the Hams was Raleigh Ferdun another BRM member.

Hurricane Awareness

As noted in the post below, hurricane season in Hawaii starts June 1. The following is some excellent information on hurricanes from The National Preparedness Community:

What is a Hurricane?

History teaches that a lack of hurricane awareness and preparation are common threads among all major hurricane disasters. By knowing your vulnerability and what actions you should take, you can reduce the effects of a hurricane

disaster.

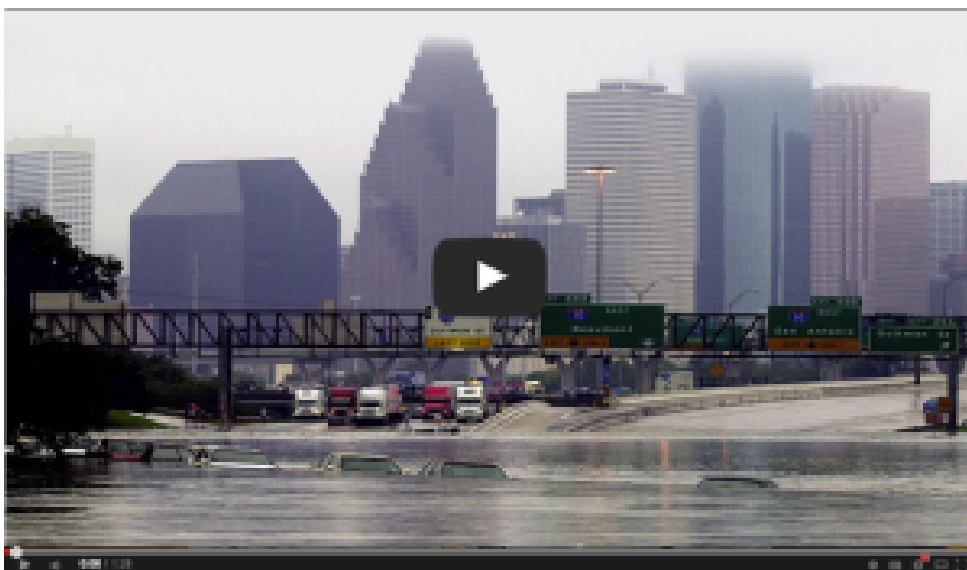
Hurricane hazards come in many forms, including storm surge, heavy rainfall, inland flooding, high winds, tornadoes, and rip currents. Gaining a better understanding of **tropical cyclones** and hurricane hazards will help to make a more informed decision on your risk and what actions to take.

Today we're talking about high wind and inland flooding two incredibly deadly and destructive elements of hurricanes. Read, watch and share!

Inland Flooding: The Deadliest Element

When these powerful storms move over land, they lose wind strength but continue to dump massive amounts of rain into streams, rivers and lakes, posing a serious threat of inland flooding. **These floods account for more than 50 percent of hurricane-related deaths each year.**

Watch this short and shareable video of National Hurricane Center (NHC) Hurricane Specialist John Cangialosi discussing the deadly danger of inland flooding caused by tropical cyclones and hurricanes.



Wind Scales: Judging Hurricane Intensity

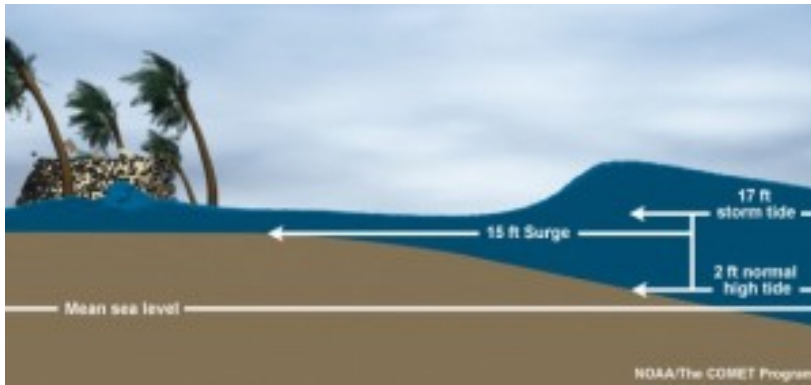
Saffir-Simpson Hurricane Scale	
<i>Storm Classification</i>	<i>Wind Speed (mph)</i>
<i>Tropical Depression</i>	<i>0-38</i>
<i>Tropical Storm</i>	<i>39-73</i>
Hurricanes	
<i>Category 1</i>	<i>74-95</i>
<i>Category 2</i>	<i>96-110</i>
<i>Category 3</i>	<i>111-130</i>
<i>Category 4</i>	<i>131-155</i>
<i>Category 5</i>	<i>>155</i>

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are

still dangerous, however, and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical cyclones with sustained winds exceeding 150 mph.

The Makings of A Hurricane: Storm Surges & Storm Tides

Storm surge is an abnormal rise of water generated by a storm, over and above the predicted astronomical tides. Storm surge should not be confused with storm tide, which is defined as the water level rise due to the combination of storm surge and the astronomical tide. This rise in water level can cause extreme flooding in coastal areas particularly when storm surge coincides with normal high tide, resulting in storm tides reaching up to 20 feet or more in some cases.

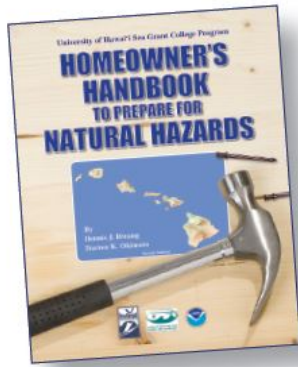


*Click on picture for more information
on storm surge*

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information on storm surge*

[2014 Hurricane Preparedness Workshops](#)

The official hurricane season in Hawaii is from June 1 thru November 31. This year is projected to be a heavy El Niño year with the possibility of as many as seven tropical cyclones/hurricanes in the eastern Pacific. May 25 thru May 31 is Hurricane Preparedness Week and May 31 is the beginning of the Makani Pahili Statewide Hurricane Exercise. Given all of that, now is a good time to think about our personal and family preparations for a possible hurricane. The following graphic shows a number of events around the state where you can get more information on hurricane preparedness. Click on the following link to see the full flyer: [hazard_workshops_flyer_2014](#)



Are you prepared for hurricane season?

Learn about: Hurricane Risk and El Niño; Emergency Supplies; Evacuation Planning; Preparing Your House and Family (Retrofits, Wind Resistant Envelope, Roofing, Solar Panels)

O'ahu	Date	Event Title	Location	Time	Point of Contact
	Fri. May 30	BYU Hawai'i Emergency Preparedness Expo	BYU Hawai'i Campus, CAC Gymnasium	6pm-8:30pm	Contact Eugenia Laurence at 808-675-3675 or lawrence@byuh.edu
	Tues. June 17	Kapi'olani Community College Workshop	KCC Cafeteria	5pm-7:00pm	Dennis Hwang djh@opglaw.com
	Sat. July 26	Ready 2 React Emergency Preparedness Fair	Pearlridge Center, 98-1005 Moanalua Road, Aiea, HI	9am-2pm	Crystal Van Beelan 808-723-8960
Maui					
	Sat. May 31	Maui County Disaster Preparedness Expo	Center Court, Queen Ka'ahumanu Center 275 W. Ka'ahumanu Ave., Kahului	10am-2:00pm	Maui Civil Defense Charnan Carroll at 270-7276 or Charnan.Carroll@co.maui.hi.us
Kaua'i					
	Fri. June 14	Kaua'i Emergency Preparedness Workshop	Līhu'e Neighborhood Center	5pm-7:30pm	Kaua'i Civil Defense Mark Marshall at 808-241-1800 or mmarshall@kauai.gov
Hawai'i					
Honoka'a	Sat. June 21	Hawai'i Emergency Preparedness Workshop	North Hawai'i Education and Research Center	9am-11:30am	Lori Hasegawa at 808-586-6680 or l.hasegawa@capitol.hawaii.gov