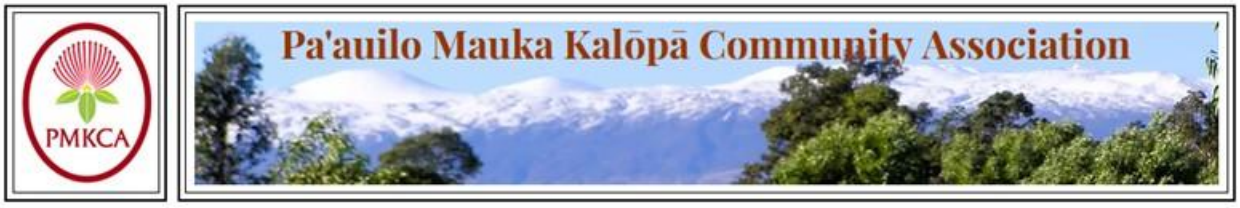

Preparing for an "El Niño" Summer

Hurricanes, Emergency Radios & Neighborhood Preparedness

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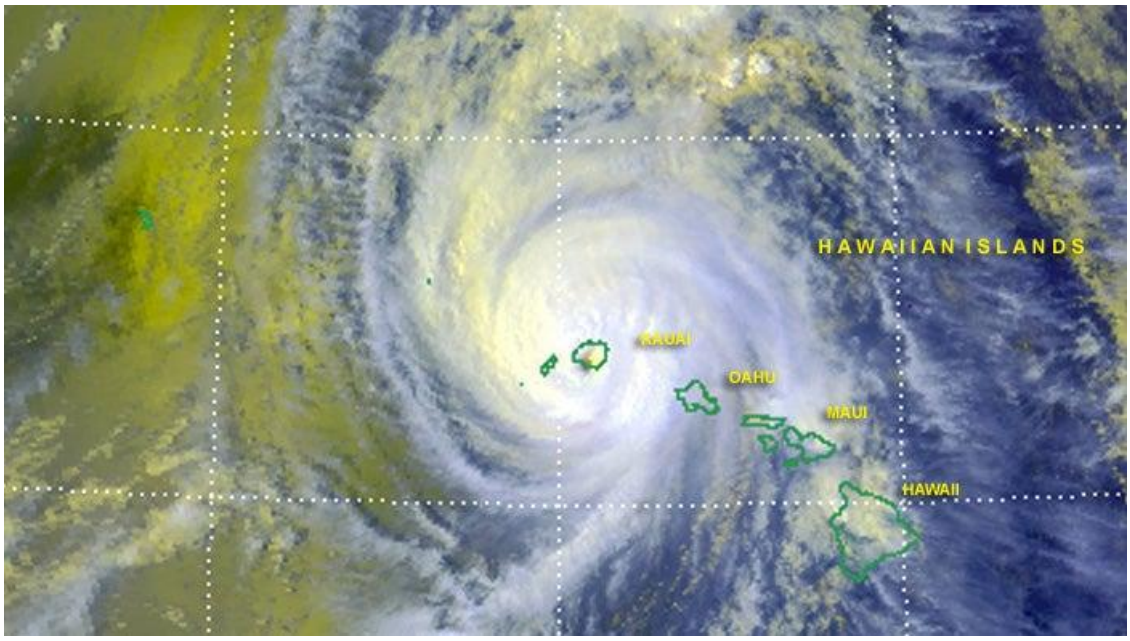
El Niño has been pretty laid back these past few years but appears poised to visit us and the rest of the world in 2026. Mainstream media is currently running stories speculating about a "super El Niño" developing this year. Naturally, all sorts of stories are spreading across the internet, ranging from objective scientific analyses to apocalyptic collapses across the world.

> What is an El Niño event? El Nino is a global weather pattern, occurring in a roughly four-to-seven-year cycle. It is characterized by a warming current in the tropical Pacific that brings rain and flooding to some parts of the planet, heat and drought to others. The warming seawater feeds storm development and growth. An El Niño creates food supply and economic issues all around the globe and is generally disruptive. A "super-El Niño", in which all the risks are more elevated, isn't just a headline – such conditions have happened in recent years. And they've been getting worse because of global warming. On top of that, the World Meteorological Organization (WMO) recently predicted that the May-June-July period of this year has a high probability of seeing the EARLY onset of El Niño.

So… what, specifically, does that mean in our little Hāmākua corner of the world? Our main concern here is El Niño bringing us warmer waters in our ocean, along with changes in the windfield above us (reduced wind shear). Both of those conditions favor more frequent development of hurricanes and more intense ones.

Should we get excited? Does a strong or "super" El Niño mean we're about to get whacked this coming hurricane season? Not necessarily. After all, the Hawaiian Islands are small targets in a big ocean, so statistically most storms have missed them or just brushed them. On the other hand, Hurricane Iniki hit Kauai pretty hard in 1992.



Hurricane Iniki over Kauai in 1992 – NOAA

And Iniki was a nastier rerun of the earlier Hurricane Iwa in 1982, which also hit Kauai. Both of those years featured strong El Niños.

Even earlier, in 1871 on the Big Island, a hurricane flattened Waipio and the Kohalas then visited Maui Hurricane with a History: Hawaiian Newspapers Illuminate an 1871 Storm: Bulletin of the American Meteorological Society Volume 99 Issue 1 (2018).

Of course, no one living today witnessed that one, and the hurricane intensity and track was reconstructed from damage reports. As a result of this long absence of hurricane impacts on the Big Island, local myths have arisen such as "the volcanoes protect us" and "only Kauai gets hit". Decades ago, several politicians even introduced legislation to eliminate hurricane insurance and reduce building code requirements for the Big Island. The above three links make pretty interesting reading.

So… if a strong El Niño – let alone a super one – does develop this year and a nasty hurricane starts tracking toward us… are we reasonably prepared for high winds and flooding? We've seen rural communities like ours go for weeks without power, clear roads, or outside assistance.

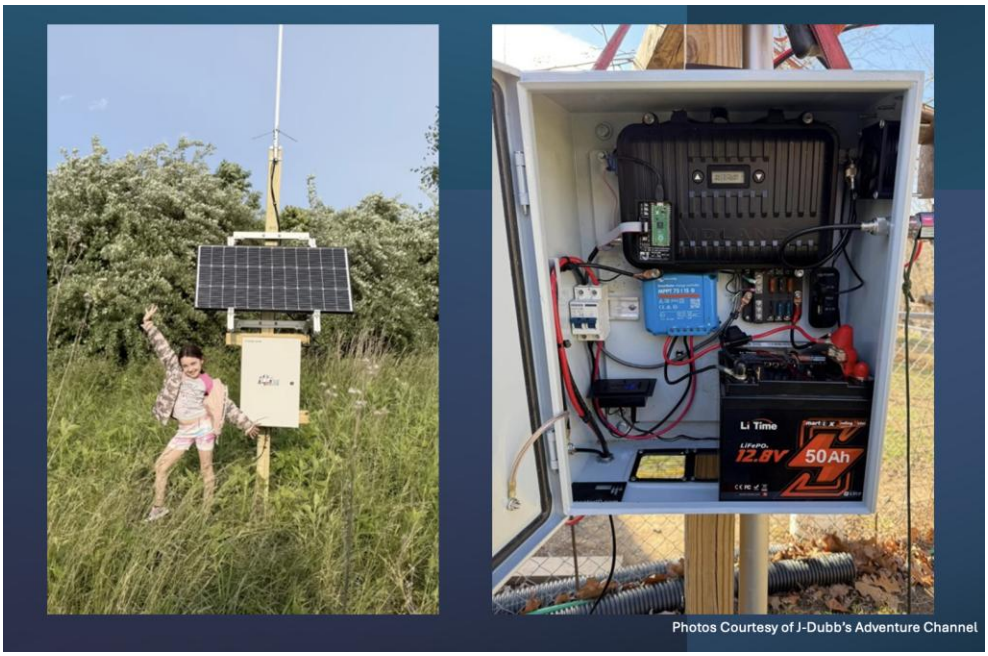
Members of PMKCA and Pa'auilo CERT have collectively kicked this question around for a couple of years. Among the many concerns that rural communities might have (weak utility grids, poor roads, potential for flooding and downed trees), one specific weakness stood out*: after a disaster, how do we find out quickly who's hurt and where they are, if all normal communications are blown down?* How then do we communicate to get help to people in

need? We decided to provide handheld General Mobile Radio Service (GMRS) radio sets to two dozen interested community volunteers.

We also acquired a GMRS radio repeater powerful enough to boost transmissions over the entire PMKCA geographic area (about 15 square miles), because by themselves the effective range of the handheld radios is not enough to cover the entire PMKCA area. With the repeater anyone with a radio can talk to anyone else with a radio.

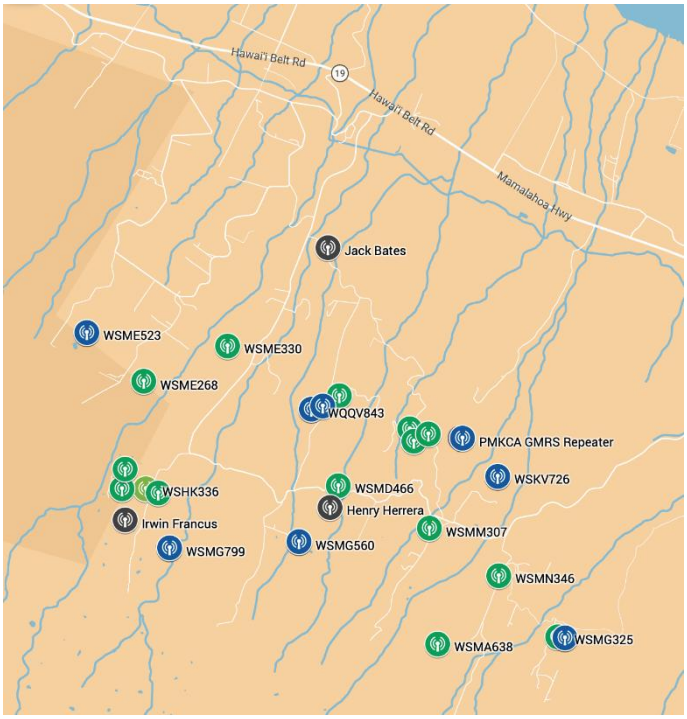
Not your ordinary walkie-talkie. A GMRS Radio.

This is a big advantage in providing situational awareness of problems across all our roads and different neighborhoods when all normal modes of communication have been wiped out. The repeater has been operational for several months; it's been successfully tested and demonstrated. We'll eventually install it in a stand-alone weatherproof steel box, where it will run unattended 24/7 on solar and batteries. The antenna can be dropped quickly for high wind conditions and re-extended quickly after.



A GMRS repeater created by ham operator J. Dubb. Ours is being built and will be similar.

This sort of communications capability brings distant friends and neighbors vocally right next door in an emergency – it's like folks talking over the backyard fence in a more urban residential area. There's been a lot of interest in this within PMKCA -- since project rollout on March 7 we now have 23 licensed participants with GMRS radios and several more in process. Of course, having radios in the hands of residents who are ready to communicate needs and organize resources isn't the only solution to an emerging disaster. And waiting for outside help may be agonizingly slow and inappropriate to the needs of residents. Preparation at the local level (residents along an isolated road or region) is often key to real recovery.



A Google Map of GMRS radio locations, created by Anthony Martin for our GMRS project.

An article recently published in the New York Times, referring to the March Oahu floods, illustrates the importance of neighborhood preparedness – addressing the gap between a single household's preparations and organized recovery from outside sources. (If you have a subscription to the New York Times, you can read the full article here.)

Quoting excerpts from the article by NYT staff writer and Waialua resident, Kit Dillon, who has lived through a variety of disasters - wildfires, hurricanes, and the Oahu floods:

> *"What I've learned, from every one of these close calls and near misses, is that what keeps us safe isn't the stuff we pack or stockpile; it's the community we build before calamity strikes. At a time when Americans are increasingly isolated from one another, we must see our ties with our neighbors as essential preparation for the future ahead.*
>
> *When the flood hit my town of Waialua, more than 230 people were rescued, predominantly by other residents. Neighbors drove farm equipment deep into floodwaters to carry people out of their homes in excavator buckets. The reason the response in Waialua was so effective was that the people and the organizations were ready to act.*
>
> *As the environment becomes more treacherous, we can't rest in the false comfort that more stuff is enough to keep us safe. It's the people around us who matter most to our survival."*

In PMKCA's April newsletter, we talked about Neighborhood Kinship Groups, "a natural, practical way for people in a rural community, far from the services and conveniences of "town", to deal with their local area's unique qualities and limitations."

With some advance planning, a local area's residents would know their own resources and capabilities, how to provide critical supplies like off-grid power, clean water, medical supplies, and food. Neighbors would be aware of who in their locale is vulnerable and where their area's potential risks are. Residents with critical skills (medical, heavy equipment, food preparation, family and crisis support) would be more prepared to provide their services to their neighbors and the wider community.

Residents with GMRS and ham radios would provide the "when all else fails" communications capability to share information and coordinate recovery efforts within and across neighborhoods, and to the outside world.

We want to note, carefully, that neighborhood preparations and our GMRS radio project don't take the place of the preparedness that should happen at the ohana level – how a resident or family prepares for recovery when an El Niño hurricane knocks on their door.

There are many other useful preparedness steps that should be taken by individuals and families. We encourage all readers to visit the Emergency Preparedness | Hawaii County Civil Defense Agency website. On that webpage, check out the "Project 360 Ohana Emergency Plan". It has a great checklist of things to think about when preparing for a hurricane or other disaster.

With preparation at the ohana level, neighborhood kinship advance planning, and a strong radio-based emergency communications backbone, residents can become their own "first responders", looking out for their families and their neighbors, and reaching out to other areas to form a network for recovery and mutual assistance.

A final thought about El Niño and its favoring of hurricane development this season… there's an excellent 22-minute YouTube documentary about 1992's Hurricane Iniki produced by the Weather Channel - Storm Stories: Jurassic Park Hurricane. The video gives personal retrospectives from some of the movie Jurassic Park's film crew who got stuck on Kauai during that event. It's fascinating to watch, but more importantly it's a very human story about togetherness within the 127-person ohana film crew during the storm – a testament to collaboration under adversity. And after the storm passed, members of that crew applied their equipment and resourcefulness to help out Kauai islanders. A lot of lessons in that video for us on how we might prepare for, and then deal with, an El Niño-induced hurricane.

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