Grassroots Emergency Communications Operations

Wanderers Amateur Radio Cub



Sticky Notes

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Ready to Serve and Sustain Our Community

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Using amateur radio for international friendship and understanding

Welcome to the Combined Newsletters of Sticky Notes & Footprints. The Combined Newsletter will have its own section on the GECO website. The archived newsletters of both groups will be maintained separately.

Mark Hayden N7YLA-SK



I met Mark AN7YLA (then KF6DSA) when I began teaching at the same college. We were on different campuses, but through an administrative assignment, I became Mark's faculty representative on the main campus, and we have been friends ever since. That was 33 years ago. For more than a decade he consistently invited me to get an amateur license. I resisted getting another expensive hobby until a year before my retirement from teaching. In the Fall of 2006, I got my Tech license. He immediately found a discounted HT (brand new but an opened box) that he thoroughly tested and helped me buy. Then, while I was on winter break, Mark emailed urging me to study for the General license. He explained (continued p.2)

Maui Fires: Why Local Is Logical

When it comes to disasters in remote and rural areas of the world, it seems obvious the locals know the land, people, culture, and conditions better than relief workers coming from the outside. Many of the people and communities in these areas are marginalized due to long-standing social injustices.



Lahaina, Maui burning to the ground as strong winds push wildland fires through the town.

Lahaina is a historic town and former capital of the Hawaiian Kingdom, giving it a boost. Maui tourism development took hold. But the deeprooted social inequities traced back to the illegal overthrow of the <u>Kingdom</u>. The history of institutionalized bias and (continued p.5)

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N7YLA-SK (Continued from page 1) the question pool would change by June 2007, and he could help me prep for the General license exam. Mark formed a study group to meet at his

home, once a week for the next several weeks to study for the exam. Mark's effort was rewarded with about 18 people passing the exam held the day after the last study session.

Mark was a professor at a community college for 37 years and a passionate amateur radio operator. He was my Elmer even before I got my license. From where I sit, Mark leaves four legacy items of



merit: 1) He founded the Glendora Emergency Response
Communications Group (GERC)
which holds a weekly Simplex VHF
net. With the help of Joe N6WZK,
an EchoLink simplex Link gateway
to the net allowed GERC members
and visitors out of RF range to
check-in from around the city,
state, country, and the world. 2)
Mark founded the Southern
California Inter-mountain Repeater
Association (SCIRA) covering
southern California (e.g., from
Fresno to the Mexican border and





East to Arizona. It is the repeater network serving the Emergency Response Communications net of the Church of Jesus Christ of Latter-day Saints. During any GERC emergency activation, GECO monitors the GERC EchoLink gateway KM6DBN-L and the SCIRA EchoLink repeater W6CTR-R ready to relay GERC EmComm traffic as requested.

3) We chose to count the GERC website separately from GERC as another of Mark's legacies because of the diverse range and amount of information it provides free to the public. The Neighborhoodlink.org group provides this basic, no-frills website free of charge for neighborhood groups. The materials available on the "Pages & Links" section are a treasure trove of information ranging from GERC activities to many radio manuals and guides, education opportunities, and links of practical value for amateur radio operators. When Mark retired nearly two decades ago, we urged him to continue the site in order to keep these materials accessible to others. Please avail yourself to these materials. With Mark's passing, the future of this site is unknown.

4) Perhaps the fourth, informal legacy, are the many other amateur radio operators who were mentored by Mark over the years. Many consider him as their Elmer, others as friends. No matter the formality or casual contact they may have had with Mark, he will be remembered as a generous and helpful person.

N7YLA. N7YLA. N7YLA. Nothing heard. R.I.P.

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The Case for Neighborhood EmComm

Survivors of two wildfires mirror the frustration of being caught in a disaster zone with no communications. Our conversations by email and voice with Ron VE8RT in Yellowknife NWT, Canada and emergency reports about Hawaii's wildfire on Maui tell of evacuees trying to escape flames without communications for situational awareness.



Wildfire near Yellowknife, NWT, Canada

In the sparsely populated Northwest Territory (NWT) of Canada, wildfires began about two weeks after the thaw began. This was much earlier than in historic times. The smoke from the fires impacted US cities such as Chicago and New York and continued burning nearly two months later. About 60% of the population of the NWT have been evacuated. Watch the interview of Linda and Garth Carman and their evacuation from Hay River (near Yellowknife). During the evacuation they were driving separate vehicles, lost cell phone

coverage, got separated in traffic, fire, and thick smoke. Without communication, they were lucky to find each other after three days. The fires destroyed the fiber optic cable in several places cutting off the area from Internet and cell access for both the public and first responders.

The swift moving intense fires on Maui quickly distrupted electirc power and communication. As in Canada, first responders and citizens lost all Internet and cell service. Without communication, people were unsure of the road closures, the location and movement of the fires, and the viable safe areas. Lack of communication hampered response operations. Social media reports abound with frustration and anxiety over the lack of information about family and friends, relief efforts, and a reign of chaos.



Wildfire on Maui in Hawaii





There is some discussion that even family service radios (FSR; aka walkie-talkies) would have helped. Though FSRs have limited range (1-2 miles depending on terrain conditions), for they can work for families in separate cars Ron VE8RT related his

attempts to talk with Yellowknife city officials concerning reviewing the emergency plans. His efforts yielded no response. One of his recent ideas was to organize local volunteer communication teams. The idea was to mobilize a small team equipped with on amateur HF radio and basic supplies of water

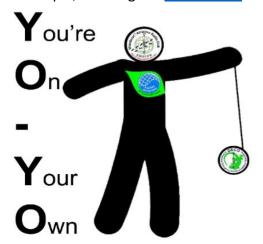
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and food to establish a check point out of town along an evacuation route. Evacuees would be able to stop, get water and a chance to get updated information and get word out to family and friends. This suggestion got no response.

Ron's idea of local volunteers reminds us of various GECO suggestions over the years. For example, knowing the travel times from your





station by different transportation modes. GECO believes you are responsible for your own safety. After all, you should be the most concerned for your safety and that of your family and loved ones. You can't expect others to be more concerned about you. This is why GECO advocates individual action for emergency preparedness. GECO EmPrep is based on YO-YO.

The article on becoming an <u>Accidental EmComm HAM</u> begins with knowing the hazards in your area that could become the sources for local disasters. There were some helpful <u>Em Comm guidelines</u> given. Here are some <u>basic considerations</u> when making an emergency plan.

GECO Field EmComm Organization. Like Ron's situation in the NWT, Canada, many rural communities have a scarcity of licensed amateur radio operators. GECO suggests using these options (see table on the right) as possible considerations for signaling among the core volunteer group. Use these to avoid straining your voice. If cell service is available, make use of walkie-talkie apps using Voice Over Internet Protocol (VOIP). As Ron suggested, having only one amateur transceiver set up at a check point along the evacuation route can become the link to relay critical health and welfare messages to family and relatives.

No	n-Rac	dio Communications Gear		
	□ v	☐ Whistles ☐ Sirens		
0				
Audio	☐ Loud speakers ☐ Gongs, Bells, Chimes			
A				
	□G	unshots		
Visual Night Day	100	☐ Mirror Flashes		
	Эау	☐ Smoke / Flares		
	_	□ Flags		
	-	☐ Lights/Flashlights		
	igh	□ Flares		
	☐ Fires			

Using Consumer Grade Walkie-Talkies. As was mentioned earlier

in this article, these kinds of units may not have the range and quality of amateur and first responder radios, but they do work between cars in a convoy or caravan if not stretched out too far. The key features of these radios is not requiring an exam or license to use them. And they are affordable as they are less expensive than most amateur radio gear. Consider what happened with the Carman family during their evacuation from Hay River. Part way through their drive, they lost cell service. Imagine the peace of mind they could have had if walkie-talkies let them communicate when they couldn't see the other vehicle in the smoke and confusion.

No communication method is perfect nor 100% bullet-proof. This is why you should plan on having a backup plan or method (or maybe more than one. Electronic communication devices need power, usually batteries, and you need to plan to have spares or ways to recharge them. If you cannot afford radios or walkie-talkies, team up with friends and neighbors and share resources. For example, among three friends, each has a different communication device, and you have flexibility and resilience for your EmComm. Remember, YOU are responsible for your safety.

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Maui Fires: Why Local Is Logical

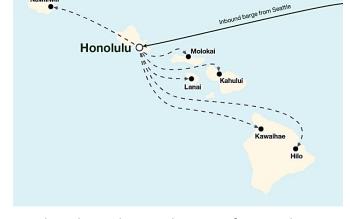
(Continued from page 1)

and discrimination perpetuated poverty among the Indigenous Hawaiians using the 50% blood quantum definition set by law in 1920 even though Hawaiian sovereignty was never surrendered. A century later, it is nearly impossible to find Indigenous Hawaiians to meet this criterion and thus continue their litigation for their family land claims. Thus, the recent Maui fires exposed the shadow impoverished economy of many locals in Lahaina in the heart of the glitz of this tourist mecca. Today, relief agencies struggle to address an accelerating chasm of inequity between those impoverished before the fires, the newly impoverished who lost everything in the fires, and the other Maui residents, who though not directly touched by the fires but suffer the secondary and tertiary impacts of the disaster. Local medical and social services stressed the need for mental health personnel sensitive to the Hawaiian culture. Those are in short supply considering the huge number of survivors in need of counseling. Funding was critically short and woefully short before the disaster. The annihilation of Lahaina has magnified the funding gap. The paperwork burden of reporting and accounting for any outside funds received is an unwelcome burden. But the bureaucratic policies of outside funding agencies is often a requirement to release the funds.

Hawaii Logistics: Of all the US states, Hawaii is the only island archipelago. Transportation between the islands is by air (passenger and cargo) and by sea (cargo, few inter-island passengers). Unlike other US states, relief supplies cannot be bulk shipped by truck or rail. Most bulk shipments to Hawaii go to Honolulu (Oahu) and then trans-shipped to Kahalui harbor (Maui). Maui has only one commercial port and one commercial airport.

Inter-island freight by sea goes via towed barges. Different shipping companies have

different schedules with delivery times varying from 1-3 days depending on the type of cargo, the shipping company, and sea/weather conditions. Kahalui Harbor (yellow arrow), airport (green





Inter-island cargo barge in tow.

arrow), and Lahaina (red arrow), and the other West Maui resort hotels (orange arrow) give you a perspective of the land transportation (light

blue dashed line) challenges for the Maui relief effort.

With the large military presence in Hawaii, I am surprised a hospital and amphibious troops ships were not deployed to meet the urgent hospital/medical and housing shortages of the survivors. Reports indicate the military was awaiting requests From the Governor's office. However, there are only



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(Maui Fires continued.) two hospital ships in the Navy and they

and troop transport ships are not based in Hawaii.

At the time of writing this article, military firefighting assistance was 1) military helicopters for water drops (though many aircraft were en route back to Hawaii from exercises in Louisiana); 2) Guardsmen for traffic controll 3) Military cargo aircraft carried Honolulu Fire Department equipment and personnel to Maui, and 4) Another military contingent was being moved in to prepare



Hawaiian Air National Guard CH47 water dropping helicopter over Maui

Military contingent was being deployed to Maui to prepare for the command of the anticipated additional military support. Although the needs on Maui are urgent, the legal procedures for getting federal aid and the number of federal and state agencies involved takes time. Unfortunately, it is time that the Maui survivors don't have.

Lost Communications: Electrical power and communications are two of the first victims of disasters, and the Maui fires experienced these. About 14,000 homes and businesses lost electric power. Cell towers need electricity, so the loss of power impacts cell towers. Some have backup generators giving them limited capacity to continue operating. Fire damage to towers can be severe enough to cause them to collapse. The fires and smoke attenuate cell phone signals. During emergencies, increased call volume overloads the system. Calls can't go through even though users may have a cell signal.

[Note: Depending on the service provider, there are notable zones of no cell coverage on Maui.]

The fires destroyed or damaged fiber optic cables linking the cell towers to the Internet. Without the Internet, people have no access to information via government websites. Unfortunately, local government announcements urged people to go to the websites. Commercial radio stations were not given government press releases until later, so at the beginning of the emergency, they were not able to provide any information to the public. This may have been an oversight as much attention has shifted to digital communications technology and some decision-makers feel AM/FM radio is obsolete. The fast-moving fires made real-time information critical for first responders and evacuees. But no communications were available to them.

Disaster Relief Dilemma. Every disaster poses a juggling act for emergency managers. Trained relief workers help facilitate speedy relief to disaster survivors. But disaster areas often lack adequate water, food, and shelter for survivors. Disaster relief workers from outside the disaster area increase the need for water, food, and shelter. In the case of Maui, access and available space on the island are already saturated. For example, gasoline could be in short supply. The question then arises, how much fuel will it take to get a gallon of gasoline to the island? Or, the survivors need X amount of water and food. Sending in Y amount of relief workers increases the amount of water and food needed. And where will the relief workers live? There is already a shortage of housing for the survivors. Local NGOs reported staff and volunteers working around the clock to distribute water, medical, and other urgently needed supplies. Everything needed to transport supplies is limited.

Given these conditions, you can readily see why supplies cannot quickly get to the people in Maui who are desperately needing help. There are no easy answers and given that many aid relief agencies expect a full accounting of goods and services delivered, adding to the burden of local agencies. ®