

Emergency Communications Special Amateur Radio's Raison D'être

With the transitional season of autumn upon us, the shorter days and cooler temperatures send a number of messages to all people, including the experienced amateur radio operator.

Just like the wise squirrel gathering nuts, it's time to make the needed preparations for the winter ahead, such as checking antennas, those dipole supports, maybe replacing that old coax (you know, the coax you promised yourself you'd replace two years ago), rechecking the ground connections for your shack, and getting ready for the long-haul DX enjoyment to be found on 40 and 80 meters through those cold winter nights, perhaps in a room warmed by the glow of amplifier tubes.

In a world of uncertainty where today's headlines seem to proclaim the opposite of yesterday's headlines, sitting down in front of a ham station that is able to operate at its peak is both reassuring and comforting. The mystery of who might respond to your CQ call will be answered in but a few moments, or perhaps the familiar voices of a nightly or weekly roundtable will make their way from the speaker to your welcoming ears. Such a scene makes me wish Norman Rockwell had been ham radio operator in his spare time.

But Wait, There's More

The tranquility of the scene above is certainly worth working toward, but as this issue of *CQ* demonstrates, emergency communications are at the core of amateur radio's *raison d'être*.

It's not a stretch to say it's the reason many of us became motivated to study for a license. From the Cold War days of the 1950s through today's emergency responses to disasters, ham radio is a key element in the emergency response tool kit. To be succinct, if we didn't have ham radio for emergencies, someone would feel compelled to invent it.

Here we are, a ready, trained cadre of operators with their own equipment, willing to bring their talents and resources to bear in response to a larger emergency. The second item, *our own equipment*, is a key element. In my humble opinion, too many of today's professional emergency response communications systems rely upon repeaters and centralized assets. The cell-phone system is similar. In spite of hundreds of millions being spent by

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state and local agencies on communication systems, the vulnerability of these fixed assets resurfaces with almost every new emergency.

Enter the hams who have their own gear dispersed over a wide area. Most of it will survive even a major event. Somebody, somewhere, has a transceiver that works; all that's needed is one more, and presto, the communications begin.

A few years back I was overlooking a beach while operating a mobile HF rig from a rented car



Amateur radio is a key element of many emergency response plans. Here, Chris Krengel, KB0YRZ, helps provide communication around a Colorado forest fire. (FEMA news photo by Michael Rieger)

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on Kauai. A local made his way over to me. At first I thought I was going to get tossed from my wonderful parking space. He asked, "Are you a ham?" I said yes and he went on, "I just want to thank you guys. After Hurricane Iniki, you're all we had."

That scenario has played out again and again. Following Katrina, New Orleans was stripped of almost everything, including the ability to communicate. This summer's outbreak of tornadoes left damaged and dazed communities in their aftermath. Bent but not broken, local hams helped in the recovery. From Joplin to Tuscaloosa and in many more locations, we were there when needed.

Not a Time for Smugness

Experienced disaster workers will tell you, though, that having a ham license and some gear is not enough. Your basic gear, usually a hand-held transceiver, needs to be in "ready to operate" condition, meaning there are fresh, charged batteries, a backup power source such as a cigarette-lighter charger, a mag-mount antenna, and more. Plus, you need to be familiar with how your equipment works and have at least basic training in emergency communications.

I've been in disasters as a responder and have spoken to EmComm coordinators from other large disasters and here are some shared experiences you can draw from:

Some hams will show up and not have a clue as to how to program their transceivers to the frequencies being used. Many in this group will also have dead or short-cycle batteries (see "Trusting the Battery in Critical Situations" elsewhere in this issue). They will not have taken the time to join an emergency response group, so they don't have training in the techniques and protocols being used. Many show up poorly dressed for the response at hand, in one case wearing a T-shirt, shorts, and flip flops, but wanting to go afield in the aftermath of a major storm.

Emergency responders know they will have to deal with a group known as "spontaneous volunteers." These are well-meaning folks who show up at City Hall or a similar location wanting to help, but they have no training, and while some may have good skills, they are a total unknown to whoever is in charge. Put yourself in their place. Can you use that volunteer with confidence? At best you could maybe post him or her with another, experienced, volunteer.

Most response managers know that it takes a long time to turn around a spontaneous volunteer from being a liability into an asset.

There's a cardinal rule among first responders: "Don't bring additional victims to the scene in the form of rescuers." In other words, diving willy-nilly into a partially collapsed building can result in the rescuer himself becoming a victim, either through injury caused by broken glass, exposed nails, live wires, leaking gas, and the like, up through an additional collapse that traps the "rescuer." Better to stay within your skills, know your limitations, and demonstrate the knowledge of acquiring qualified help that is trained to respond to specific needs.

In the immediate aftermath, there are many elements to disaster response, such as damage assessment, urban search and rescue, first aid, hazardous-material identification and control, fire suppression, infrastructure evaluation, victim recovery, psychological support, and more.

While all of this is happening, it must be remembered that many of the responders may also be victims of the event. That's where the drills, planning, and preparation kick in, because every organized response to an emergency begins

with establishing reliable communications. Without communications, the rest is chaos.

Plan B

You always need to have a "Plan B." That's the plan that must consider what happens when certain assumed resources are not available. Similar to a battlefield, the "enemy" (in this case Mother Nature) doesn't always cooperate by doing what you expect it to do. You need backup strategies both personally and in the response mode. Draw up a list of "what ifs" such as "What if my house is unfit for occupancy?" "What if the water supply is cut off?" "What if outside help can't get here within three days?" Murphy is the constant companion that's present at every disaster.

The key element is planning ahead. While it's not possible to foresee every circumstance, it's a worthwhile exercise in problem-solving, which is really the point. You will have to deal with the unknown. A key response component is knowing the resources that are available, and the way you can know that is through reliable communications.

Location, Location, Location

Where's your emergency response gear *right now*? Can you be in the response mode in a matter of minutes? Do you have a "Go Kit"? (see "Gordo's Short Circuits" elsewhere in this issue.) How about your personal gear? Work shoes or boots, appropriate clothing, hard hat, safety vest, work gloves, goggles, some water and energy bars, first-aid kit, emergency blanket, medicines, spare glasses, watch, flashlight with fresh batteries? How much fuel is in your car or truck *right now*? If it's less than a half tank, you're at risk.

Hopefully, you will be spared a disaster at your home. That places you in a good position to render assistance to others who may have been directly affected by a nearby event. Remember, they're victims first, responders second. Help from the outside brings aid and personnel with a clear mind that's not worried about immediate family or neighbors.

Few areas of the country are immune to natural disasters. From blizzards in the north to wildfires and earthquakes in the west, to hurricanes and tornadoes in the south and the midwest, to spring floods or wind storms, the only certainty to emergencies is that we know they will happen.

Therefore, regard your ham license not as the end of your emergency preparedness, but in fact, the beginning. There are many different ways to hone your response skills: Join your local RACES or ARES group and take advantage of the training that's offered; volunteer with the Red Cross, Salvation Army, or a Community Emergency Response Team (CERT) sponsored in many areas by local fire or police agencies. Many communities are served by volunteer fire departments that offer similar programs. One of the more valuable functions you can perform is training more communications responders and helping them become licensed.

Summary

The focus here has been natural disasters. Sadly, we cannot dismiss man-made disasters rising from industrial accidents, terrorism, and infrastructure failures such as widespread power outages and the like.

Thanks to all those who have taken the time to become emergency communicators. While Mother Nature and other incidents are an ever-present threat to consider, we also have an amazingly powerful response at our disposal, the "Magic in the Sky."

73, Jeff, AA6JR