

## **The Elmers Corner: Emergency Preparedness Part 1**

### **By Robert Gulley AK3Q**

This column, in conjunction next month's column, deals with being prepared to help during an emergency which, unfortunately, is happening all too frequently now. While training for such emergencies is essential, it is best handled though ARES, SKYWARN, CERT and others. What I can offer here are recommendations for equipment preparedness, including radios and alternative power options for those radios.

#### **Power Considerations**

During an emergency often the first thing to go is the power upon which we have all come to rely. Depending on the size and duration of the emergency, you may find yourself without power for an extended period of time. This means your method(s) of backup power need to be flexible so that you have the best chance of keeping something on the air when needed.

The most obvious backup power source is the alkaline battery. Depending on the radio and the power requirements, alkaline batteries can last a long time. They are plentiful, easily obtainable, and easily stored. I have a number of radios including HTs, scanners, marine and standard AM/FM radios capable of running on AA batteries.

Unfortunately something which seems to be rearing its ugly head once again is battery leakage. I do not recommend keeping alkaline batteries in packs for any length of time as I have had several name brand batteries leak after even just a few months. Hopefully this is something quickly resolved by the manufacturers. For many years the batteries were almost leak-proof.

While I have nothing against rechargeable batteries like Ni-Cad or the like, recharging them takes more power, and in an emergency I would rather conserve as much power as possible. An exception to this would be a solar power station for recharging batteries. These units are becoming plentiful and reasonably priced, so it is worth considering such a unit just for this purpose.

How you power your radio in an emergency really depends on your needs. There are numerous options, some of which may seem obvious, while others may not.

#### **12v Battery**

This is the most obvious choice because it is the most common. A car battery, a marine deep cycle battery, or an AGM battery make good short/long term options depending on how they are used. With low power TX a fully charged Marine deep cycle battery (my preferred choice) will last a long time.

Obviously your car battery will work quite well, but you may not want to use it so as to make sure the car is readily available. Alternatively, the car can offer a means of recharging either battery, provided you have a good amount of gas, but this is a relatively short-term option if gas may not be available.

Twelve volts (+) can be achieved a number of ways; the real limitation is in how long you can operate before exhausting your power source. I like having a number of options, mostly designed for low power consumption. Some of these include:

- lantern batteries in series
- automobile jump-start batteries
- DVD/Laptop extended operation batteries which output 12v (beware – some laptop chargers go as high as 19-20v and this will fry your radio)
- 12v rechargeable power tool batteries
- UPS units which have been modified to output 12-14 volts
- Anything designed to provide power at 12 volts; as long as you can reach the terminals in some way, it can be used!

I have several sizes of alligator clips in my odds and ends case to connect wires to posts/terminals as needed, along with ring terminals, Anderson power poles, and power splitters. Obviously you can't carry everything with you in a to-go kit, but around the house I try to have as many connection options as possible.

### **Odds and Ends**

Keep in mind things like lights and cell phone chargers/batteries etc. An inverter is a good investment for taking DC current to AC for recharging cell phones, tablets, laptops etc. LEDs use much less power and can be used to light your radio area when needed. And don't forget to have an emergency weather radio that can be operated on AC/DC or cranking a small generator to recharge itself and small devices. A number of companies make them, and they are good options in an emergency. While some folks complain about their limited coverage, they will easily get local stations during the day and distant ones at night to keep you abreast of what's happening.

I do not want to get too far afield here since my main purpose is to discuss power and radios, but planning ahead to cover as many options as you can for various needs is always a good thing. Never forget that your cell phone is actually a radio in disguise, and even when voice modes are down or overcrowded, texts can and do often get through.

### **Receiving**

If you are a radio enthusiast you are more likely to have several radios (and the knowledge of how best to use them) compared to the average person. Many folks in the U.S., if not most, do not have a shortwave radio anymore, and many do not have an emergency weather radio.

If you have a modern scanner, amateur radio HT or mobile radio, chances are good you have weather capability built in. Hopefully you have one of the radios like I mentioned above which can operate on battery, solar, or cranking power and can even charge your cell phone. Having just this capability could allow you not only to help yourself in an emergency, but you could also help neighbors who were not as well prepared.

While the United States and many other countries have gone to digital TV signals and old TV bands no longer work, there are a number of small digital TVs capable of receiving digital signals which can work off of battery power, and I would recommend one of these as well. They allow you keep abreast of local news which may help you and others get assistance. While they usually have built in antennas, you may need to have something better than a telescopic whip, depending on your location. Digital TV signals are subject to the same line-of-sight limitations as any other VHF/UHF signal, but by the nature of digital signals they must be fairly strong to produce an image.

As an aside, if you have police scanning capability you may want to see if your local TV stations have a frequency upon which they broadcast. Several of our stations do here, and while it is odd to hear voiceovers giving directions for playing commercials or adjusting camera angles, it is nice to have an analog option for reception!

Speaking of scanners, they are of course a great way to get some idea of how widespread an area is being affected by a local emergency. While in really difficulty emergencies actually antennas may be down or transmitters destroyed, most emergency services have backup plans and can remain on the air for an extended time. Monitoring these frequencies can give you an idea of conditions and relief progress, which may be very helpful to family and neighbors.

### **Wrap-up**

We have looked at some of the many power options, and truly there are many, so keep on the lookout for inexpensive options as they show up sometimes in the most unlikely places. Next time around we will look at radio options and perhaps some useful antennas. Until then, let's start getting prepared! -- 73, Robert AK3Q