

Hamm'n' It Up



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GOT POWER?

So when the lights go dark what do we do about communications? If you've got that little HT, the battery will only last hours. If you've got a cigarette adapter for the car you'll be able to operate a lot longer but you still have a major problem to deal with. Your transmit power will be limited to about 5 watts out. Will that do the job? I'm reminded of the title of a book written by Robert Ruark, a famous journalist and African big game hunter, entitled "Use Enough Gun". You want to get a dependable signal out that will be heard at ANY time. The answer here comes in two parts. 1.) Use a radio with enough power to confidently communicate even if there is no repeater available - A full power rig. 2.) Ensure that you have some means of applying 12 Volt power to that radio at any time. The first part is easy. Buy a suitable radio, antenna and feed line. The second part can be quite easy also if you just think about it a bit. Let's explore this area a bit.

We all know that almost all full power radios are designed to use a 12 Volt power source of some sort. Without our getting too complicated let's just say that the source has to be a clean DC (Direct Current) 12 Volts. No fluctuations or AC component. We typically think of 2 things when considering power arrangements. A power supply or a battery of some sort. In this scenario the power is gone so the power supply won't work.

Now, just how and where do we get a suitable battery supply? If your radio is mounted in your vehicle the problem is solved. You'll be able to operate as long as your vehicle battery is charged and

functional and you can keep it charged and in good shape. There's another reason to keep the gas tank pretty well filled. Just like in cold weather, don't let it fall below 1/4 tank. If everything is falling apart will you have enough fuel to 1.) get you and yours to safety at a moment's notice and/or 2.) be able to operate your radio for a protracted length of time if need be?

Well, it's not much of a stretch to think that we ought to be able to use some sort of battery arrangement in our dwelling. Having a spare battery around isn't a bad idea. You can power a radio or, if on one cold morning you find that the car battery is down, it can be changed out quickly and you're back in business. Such batteries are called "Lead Acid Cells" because the plates inside the battery are made of a lead mesh and they sit in a Sulfuric acid bath which is used as an electrolyte inside the battery. Some are sealed and some have caps to access each individual cell in the case.



This is an adult environment folks. There is some potential for injury here unless things are understood and managed. You definitely want to keep children away from this arrangement BUT, from an emergency standpoint, this is a great option because of the capacity for relatively long term power at a relatively low cost. For instance, the Die Hard on the left can power a 100 Watt radio for about 9 - 11 hours but a deep

discharge like the marine battery on the right is better because it can stand a greater level of discharge and operate longer than can a car battery. But, in a pinch don't eliminate any options. You can even use one of the booster



packs commonly seen at Wal-Mart or at the auto stores. They don't have much capacity but at a reduced transmit power setting on your transceiver it may do the trick for a while. I modified one I have by installing a set of Anderson Power Pole connectors on the side and wiring them to the sealed wet cell inside. This was done simply by using a little heavy wire, 2 ring con-



nectors, the Power Pole connectors and a little epoxy.

Hey, one thing I forgot to mention. See the pack at the top? You'll note that it has 2 cigarette lighter connectors on it. With an appropriate power

adapter you can use those to power an HT.

Here's another pinch option for you. I'll bet some of you have kids and, if your kid is the proud owner of one of those electric cars, you may have a suitable battery there for some light operation time. Some of these are only 6 Volts though so be sure what you have. Also, some of these are fused inside the case so check out what the fuse capacity is.

Well, none of this is magic folks. It can be done and done safely in the home. You have to plan a bit, maintain the battery making sure electrolyte is up (just like in a car), that the battery (or batteries) is/are charged properly, well ventilated and ensure that things are kept clean.

Anyway, this stuff has been around a long time. In telephone central offices

and other locations there are backup battery supplies all over the place. At one location I worked at we had almost an entire 1 acre floor devoted to power with half of that taken up by various battery supplies. Some of these were submarine batteries almost 5 feet tall and about 3 feet square at the top. Others were smaller and rectangular and still others were cylindrical cells developed by Bell Labs. Rows and rows of batteries all on shock mounted platforms to withstand the occasional jostling expected to be experienced in an atomic attack.

This is only a high level view to get you thinking more about your emergency radio set up. There are all sorts of variations to this theme from the types of batteries used to solar power and generator arrangements. You can explore the topic of backup power a bit more in the ARRL book "Emergency Power For Radio Communications".

TRAINING NEWS

While the overall umbrella is Emergency Preparedness our underlying mission is maintaining the ability to communicate—gathering and transmitting vital information effectively and clearly. Along with that we need to be aware of many factors that can influence our collective welfare and ability to function. Keep your eye on this section as we work to bring to you opportunities for training in some neat areas such as:

Skywarn - Weather event recognition
(See www.weather.gov/skywarn and www.skywarn.org)

CERT - Community Emergency Response Training

More info is to come your way!

Simplicity

How simple can it get? What can you get for emergency communications and how much will it cost? You're a licensed Ham and just want a basic radio set up that you can put in your car but also want to be able to use the rig as a base station in your home or be able to set up in the field on short notice. Let's talk about the radio gear seen below.



Here's a complete simple station set up in my yard ready to go. On the table is a 2 meter FM radio. On the ground is a car battery for power and the white object is a 2 Meter antenna I made and the PVC pipe antenna stand. Cables to connect it all together and a table for convenience and you're in business. Cost, sans the fold up table, is around \$ 270. A closer look reveals the car battery



and an Icom IC 2200H 2 meter radio.



The antenna and coax cable complete the picture.

There are other solutions. We have one person that lives in a neighborhood with restrictive covenants so a full size antenna on the house isn't a good option. The solution was to place a mobile mag mount antenna on the top of the chimney on the metal cover. It works great and doesn't draw any attention.

It doesn't get much simpler and the radio can always be put in your vehicle if you want. Communications restoration in an emergency can easily be yours. At other times, it can be for fun.

