Hot Tips

Good info for the new ham, and old stuff to refresh your memory

Backup emergency power

When the lights go out, that often means they've been running on *commercial power*, which is the electricity that's provided by the utility company. It would be convenient, and in some cases life-saving, to have a way of restoring at least some of your appliances to normal function quickly following such an event. Let's examine a few ways to implement emergency power in case of an outage.

One of the first, if not most convenient sources of emergency or backup electrical power is ***battery***. If you're on your desktop radio when the power goes out, you can easily disconnect your radio from its power supply, plug in your backup battery, and you're back in business within a minute. Possessing that kind of convenience means you need to have a battery that's large enough to handle your power needs, and that's already charged and ready to be used at a moment's notice.

Generator

Another reliable but temporary power source is a ***generator***. It might be a little less convenient than a battery, but a generator can provide house current for several appliances, whereas a battery can only deliver direct current to one or two items. You can keep your generator going for as long as your fuel supply holds out. Be sure and keep your running generator outdoors, and not inside your garage or your house. If you do have a generator connected to your house, it's useful to have a transfer switch, which can re-route the source from commercial to generator in a single flip.

Solar

Yet another popular standby power source is ***solar***. As long as the Sun's out, even when it's cloudy, a solar panel can deliver seemingly free electrical power to your radio and other equipment. Because solar radiation is not constant, however, the panel voltage rises and falls, and needs to be regulated and stored for it to be useful to you as an emergency power source. Your solar setup will need both a ***charge controller*** and a ***battery*** to even out the flow of power delivery.

Some other unusual emergency power backup possibilities include ***wind turbine***, ***water wheel***, or even ***bicycle***. All of these require a small generator, but again because of their constantly changing voltages, you'll need to route their electrical power through a charge controller and a power converter, to prevent damaging the battery from over-charging.

Failover

While you can most likely run across the room and retrieve a charged battery to restore your radio's power during an emergency, it might be a lot more convenient if it were already connected to your radio in some way. Many of these emergency electrical power solutions we've discussed can automatically switch over to the battery upon detecting that the city power has gone out. Others require a ***failover device***, one that immediately switches from commercial power to battery. This way, while you're on the radio, even transmitting, and the power goes out, you might never know you've switched to battery power.

The emergency power solutions we've been discussing involve what you can do once commercial power fails. But they can also be helpful when another power source quits or has drained. For example, when your HT battery has given its last breath, it's handy to carry a ***spare*** battery for your radio, just in case.