

How do I?

An occasional series

This week: Prepping... for Disaster

The wonderful world of Amateur Radio is divided into many segments. As we saw in ~~28~~ *Flavors of Hams+* [in 2 parts, see **Resources** page], there are many varied interests. One of the largest segments, one that draws many folks into the hobby, is Disaster Preparedness.

Someday we will explore the ARRL National Traffic System, the Emergency Coordinators, and the roles ARES and RACES play in the emergency management system. However, if you can't wait to get started, the ARRL Technician Licensing Exam study guide and the ARRL *Operating Manual* both devote a lot of space to these topics and can be part of your learning plan.

The Internet is full of websites, some very good, some not-so-good, advocating the need to be prepared. But what does prepared mean? Different things to different people. For some, being prepared means they have enough milk, eggs and bread to survive a three- day blizzard. Others take preparedness a bit further. The Federal Emergency Management Agency (FEMA) has a series of PDF files on their website. One of the best is *Are You Ready?*

FEMA clearly states: *You should also be ready to be self-sufficient for at least three days. This may mean providing for your own shelter, first aid, food, water, and sanitation.*

I am surprised they left out communication. Land line telephones are fairly reliable until the wires or pole lines fall. Cellular telephones are the go-to for many people. Probably too many. Remember 9/11/2001? Between the physical destruction of cell phone towers, the loss of power, and a few million people all trying to call home at once, the cell network for a lot of the northeastern US simply collapsed.

That leaves us looking for a communications alternative. Amateur Radio can be a pretty good one.

Assess your needs. In a disaster, who are you going to call? Do you wish to let family members know you will meet them at a predetermined rendezvous point? Or, let loved ones across the country know you are safe? If you primarily need

just local communications, take a look at a simple hand-held radio (HT, or Handi-Talkie). There are some articles and reviews in this series [see **Resources-Setting Up Your Station**] that may help. Depending on your needs, you may want to consider a mobile VHF or VHF/UHF radio for your car or as a home base station.

Depending on the number of people, location, and terrain, the ideal disaster communication system may consist of HTs for some individuals with a base station configured as a repeater to extend the range. One of the newer D-STAR or C4FM System Fusion radios may be an ideal candidate for this.

If you need to reach further, and if you have a little technical skill and resources, you may be able to configure a Wi-Fi mesh network so it can reach some place with working internet. If you can reach a working Echolink repeater network, you may be able to reach loved ones in other states or countries via an IRLP (Internet Radio Linking Project) connection. Other options include radi- to-internet eMail via PSKmail and similar software programs.

Longer duration disasters may require more communication protocols. The same VHF or VHF/UHF radio you use as a base or mobile or repeater can, when teamed with some free software and a working computer, allow you to collect your own satellite weather photos using WEFax. You can send out pictures as attachments to some of the radio-based eMail programs or use SSTV to send your own.

Depending on your location and other factors, HF could play a role. But for most needs, you will want VHF and possibly UHF capability set up and optimized for use before you really need to worry about adding HF to your toolbox.

The key to success is preparation and practice. Gather what you need ahead of time, maintain it, and use it. If Echolink is part of your plan, have the radio and computer programmed ahead of time and practice! Ditto for SSTV, using a repeater, etc. I read a great quote the other day: *"In a crisis, people do not rise up and do extraordinary things; they regress to their basic level of training"*. Very true.

If you desire to become active in ARES, RACES, Skywarn, SATERN, MARS or any other local or national emergency response organization, begin today. Many organizations have training requirements and special equipment requirements that need to be satisfied if you wish to operate with them.

If you are not a joiner, you can still get on-the-air. Not only does getting on-the-air hone your skills, but checking-in with local nets or repeaters gets your voice and call sign on the air. Especially in an emergency, some people can be stand-offish. If you are recognized as a legit+ and a member of the amateur radio community, you are more likely to get someone to answer your call.

Catch ya on the air!

Acronyms, Glossary, and Other Notes:

Term	Additional Information
ARES	Amateur Radio Emergency Service
ARRL	American Radio Relay League. The National Association of Amateur Radio
C4FM	Continuous Four Level Frequency Modulation
D-STAR	Digital Smart Technologies for Amateur Radio. A digital voice and data protocol.
Echolink	Application that interfaces Amateur Radio with the Internet
MARS	Military Affiliate Radio System
RACES	Radio Amateur Civil Emergency Service
SATERN	Salvation Army Team Emergency Radio Network
Skywarn	Amateur Radio data collection network for National Weather Service
SSTV	Slow Scan Television
VHF	Very High Frequency
UHF	Ultra High Frequency