

“What Do Ham Radio Operators Do in Emergencies?”

Depending on the nature of the emergency, Ham’s volunteer to perform a number of functions:

(1.) Ham’s shadow government and agency officials, riding shotgun in Official’s vehicles and following them on foot and keep them in touch, typically via VHF/UHF repeater and/or simplex systems.

(2.) Ham’s set up and operate base stations at Shelters, Command Posts, Emergency Operations Centers, agency headquarters, hospitals, and the like, and provide professional communications among the various agencies and their officials out in the field.

(3.) Ham’s operate in Local, Regional, and National traffic nets which move information in the form of radiograms into and out of disaster areas.

(4.) Besides voice communications, Ham’s use digital communications to move data about victims, supplies and tactical operations accurately by radio; they use Amateur TV to provide live video to aid in damage assessment, rescue and recovery. They remain flexible and adapt to changing circumstances as needed, always carrying a large bag of tricks (jump bag).

(5.) **Ham Radio is an immensely important and valuable Emergency Management resource.** There are Radio operators, popularly known as Ham Radio operators or simply Hams, in every county of the United States. There are countless examples of Hams providing essential communications during disasters, **when all other lines of communications have failed.**

For Local and State Emergency Management Coordinators, the presence of trained Ham Radio operators using their high-quality radio gear is nothing short of a Godsend. Surprisingly, though, Hams have not been implemented into planning and preparedness in many communities. This oversight is often due to a lack of understanding or confusion with Citizen Band radio. The nationally organized emergency management applications of Ham radio include the Amateur Radio Emergency Service and the Radio Amateur Civil Emergency Service. **RACES is an activity of the Federal Emergency Management Agency.** It was originally established to enable an official network during national security crises.

As planned then, only Hams trained and enrolled in RACES would be permitted to operate during such disasters. With the end of the Cold War, the role of RACES has evolved, emphasizing all-hazard operations. Any local or state emergency management agency can establish a RACES organization of local Hams.

ARES is set up as part of the American Radio Relay League. ARES organizations operate in support of State and Local Emergency Management. ARES teams participate in severe weather observation search and rescue operations, support of major public events and just about any situation where reliable communications are needed to replace or augment normal emergency communications systems. In most areas, ARES and RACES are combined.

The American Red Cross has relied heavily upon Ham Radio for years. The ARC has found Hams to be extremely helpful in support of its human welfare mission.

Experienced emergency management professionals know that everyday communications links such as land & cellular telephones and public service radios may not exist during major emergencies. Almost certainly, Hams will be up and ready to serve. As one individual put it, “HAM” stands for “Helping All Mankind”.

“10 Ways to Optimize Your Effectiveness in Public Service Events”

(1.) Make sure that your radio is in top operating condition. Small problems such as loose antenna connections, bad microphones and intermittent operation, may be annoying during casual operation, but **WILL** cause major grief under the continuous use during emergency net operations

(2.) Don't operate your handheld with it hanging on your belt. Using the radio while it's strapped to your waist reduces your effective radiated power by more than 10 dB. That's a 90% reduction in power! Hold the radio in your hand, with the antenna in the clear.

- (3.) With regard to antennas, those 3 inch rubber dummy loads may be cute, but you're throwing away 3-6 dB of power when using one. A telescoping half-wave antenna has a gain of as much as 10 dB over a 3 inch rubber duck and a quarter-wave provides a 4-6 dB improvement. Remember that one dB can mean the difference in whether or not a critical message gets through.
- (4.) Have charged batteries and spare battery packs. If you also have a dry cell battery case, fill it with alkaline batteries. Make sure you have enough batteries with you to carry you through, even on high power.
- (5.) Use headphones or earphones rather than a speaker mike. Most earphones will plug directly into your HT. Low cost stereo headphones are widely available and will work perfectly with your HT. The head phones also have the advantage of concentrating the communications in your ears, while partially shutting out outside noises. Headphones will also prolong battery life by allowing the radio to operate at lower audio output. A speaker mike is the worst thing you can use because it doesn't cut the outside noise, it doesn't save batteries, and where is that HT while you're using the speaker mike?
- (6.) Speak slowly and clearly when transmitting. You may take pride in your ability to run your words together and mumble, but the station on the other end may be in a noisy environment and may not receive your message.
- (7.) Check out your ability to use simplex. Even if the operation is being conducted on a repeater, there may be dead spots, the repeater may go down, or, there may be jamming. Even if you can only work the two or three stations closest to you, a message can still be relayed.
- (8.) Listen to net control and direct all communication through him or her. Identify your station when calling net control and keep all communications direct and to the point.
- (9.) If you must leave the radio or the area to which you have been assigned, first seek permission and get acknowledgment from the net controller, make your time off as short as possible, and check back in with NCS immediately upon your return.

(10.) Project a good image to the non-hams around you that are part of the emergency. This means dressing, and being professional in all of your actions.

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