

Disaster Communications:

If normal communications are down or overloaded because of a pre or post disaster situation, ham may provide essential communications needs to facilitate relief actions. (see FCC Rules part 97.401A) If you are outside of an area regulated by the FCC you may still perform these functions under the International Radio Regulations.

If an emergency strikes a wide spread disrupting the normal lines of communications, the FCC Engineer in Charge of the area may designate certain frequencies for use by stations assisting the stricken area only. (See FCC Rules part 97.401B) All amateur transmissions, with or within, the designated area conducted by the FCC-designated emergency frequencies must pertain directly to relief work, emergency service or the establishment and maintenance of efficient networks for handling emergency traffic. The FCC may also set forth further special conditions and rules during the communications emergency (see FCC Rules, part 97.401C).

Also the commission may designate certain amateur stations to police the emergency frequencies to warn noncompliant stations that may be operating there. Only the FCC can lift the emergency conditions imposed by the FCC or it's authorized representative.

Amateurs desiring a declaration of communications emergency should contact the FCC Engineer in charge of the area concerned (see FCC Rules part 97.401C)

It is impossible to state exact rules that will cover every situation that arises. The good amateur faced with a disaster situation may, however, benefit greatly from certain rules of thumb. These rules are, or should be, part of his/her training in his/her ARES group. They are presented here somewhat at random and should be reviewed by all amateurs, even those not active in disaster communications preparation.

Keep the QRM level down. In a disaster, many of the most crucial stations will be weak in signal strength. It is most essential that all other stations remain silent unless they are called upon. If you're not sure you should transmit, don't. Our amateur bands are very congested. If you want to help, study the situation by listening. Don't transmit unless you are sure you can help by doing so. Don't ever break into a disaster net just to inform the control station you are there if needed.

Monitor established disaster frequencies. Many localities and some geographical areas have established disaster frequencies where someone is always (or nearly always) monitoring for possible calls. When you are not otherwise engaged, it is helpful simply to sit and listen on such frequencies, some of which are used for general ragchewing as well as disaster preparedness drilling. On CW, SOS is universally recognized, but has some legal aspects that should be considered where the need is not truly crucial. On voice, one can use "MAYDAY" (universal, the phone equivalent of SOS) or, to break into a net or conversation, the word "emergency."

Avoid spreading rumors. During and after a disaster situation, especially on the phone bands, you may hear almost anything. Unfortunately, much misinformation is transmitted. Expansion, deletion, amplification or modification of words, exaggeration or interpretation starts rumors. All addressed transmissions should be officially authenticated as to their source. These transmissions should be repeated word for word, if at all, and only when specifically authorized. In a disaster emergency situation, with everyone's nerves on edge, it is little short of criminal to make a statement on the air without foundation in authenticated fact.

Authenticate all messages. Every message of an official nature should be written and signed. Whenever possible, amateurs should avoid initiating disaster or emergency traffic themselves. We do the communicating; the agency officials we serve supply the content of the communications.

Strive for efficiency. Whatever happens in an emergency, you will find hysteria and some amateurs who are activated by the thought that they must be "sleepless heroes." Instead of

operating your own station full time at the expense of your health and efficiency, it is much better to serve a shift at one of the best-located and best-equipped stations, suitable for the work at hand, manned by relief shifts of the best-qualified operators. This reduces interference and secures well-operated stations.

Select the mode and band to suit the need. It is a characteristic of all amateurs to believe that their favorite mode and band is superior to all others. For certain specific purposes and distances, this may be true. However, the merits of a particular band or mode in a communications emergency should be evaluated impartially with a view to the appropriate use of bands and modes. There is, of course, no alternative to using what happens to be available, but there are ways to optimize available communications. Long experience has developed the following advantages:

CW Mode

- Less QRM in most amateur bands.
- Secrecy of communications--contents of communications are much less likely to be intercepted by the general public to start rumors or undue concern.
- Simpler transmitting equipment
- Greater accuracy in recording communications
- Longer range for a given amount of power

Voice Mode

- More practical for portable and mobile work
- More widespread availability of operators
- Faster communication for tactical or "command" purposes
- More readily appreciated and understood by the public
- Official-to-official and phone-patch communication

Digital Modes

- Advantages 1 and 2 of CW
- Advantage 2 of Voice Mode
- Greater accuracy of records
- Ability to store, forward, and distribute textual information
- Ability to "digipeat" information over long distances with multiple stations

The well-balanced disaster organization will have CW, phone, and digital mode capabilities available in order to utilize all of the advantages. Of course, one must make the best use of whatever is available, but a great deal of efficiency is lost when there is lack of coordination between the different types of operation in an emergency. Absolute impartiality and a willingness to let performance speak for itself are prime requisites if we are to realize the best possible results.

Use all communications channels intelligently. While the prime object of emergency communications is to save lives and property (anything else is incidental), Amateur Radio is a secondary communications means; normal channels are primary and should be used if available. Emergency channels other than amateurs available in the absence of amateur channels should be utilized without fear of favoritism in the interest of getting the message through.

Don't "broadcast." Some amateur stations in an emergency situation have a tendency to emulate "broadcast" techniques. While it is true that the general public may be listening, our transmissions are not and should not be made for that purpose. Broadcast stations are well

equipped to perform any such service. Our job is to communicate for, not with the general public.

Within the disaster area itself, the ARES is primarily responsible for communications support. When disaster strikes, the first priority of those NTS operators who live in or near the disaster area is to make their expertise available to their Emergency Coordinator where and when needed. For timely and effective response, this means that NTS operators need to talk to their ECs before the time of need so that they will know how to best respond.

So what is legal, Anyway? For the most part the confusion is not really in the FCC rules but in the amateur community and it's misunderstanding and interpretations of the rules.

Somewhere in the chain of ham radio folklore facts about amateur radio emergency communications have become distorted. At time hams have written to the FCC asking about a hypothetical situation. Unfortunately this may result in a hasty legal decision formed without all of the factual details. In fact, the FCC would prefer amateurs be self-regulating and resolve operational issues by themselves.

To understand what hams can and can not do, you must understand each of the following principals:

- Business communications
- Emergency Communications
- Public event communications

Business Communications:

Business communications are expressly forbidden within the amateur radio service. If routine business communications were allowed any business could license it's employees and swamp the 2 meter band with repeaters and continuous communications. This has already happened in the General Mobile Radio Service. The FCC has added a carefully worded exception for use during emergencies allowing amateur radio operators to conduct what ver type of communications is needed. You can not use your station or equipment to facilitate the business or commercial affairs of any party or as an alternative to other authorized radio services, except as necessary to providing emergency communications.

Note the words "any party" The FCC rules make no distinction between for profit and non- profit businesses. You can not conduct the regular business of a charitable organization. For example providing mobile communications for a food bank in its daily collection of surplus food.

You can however assist a 10 mile race sponsored by the food bank or a for profit business when your investment is for the primary benefit of the general public, even if there is an incidental benefit to the sponsor. For example, where the communications are related the safety of the attendees and participants, the primary beneficiary is the general public not the sponsor of the event.

Emergency Communications

An important exception to the business communications prohibition that we discussed is the case of emergency communications, that is, in connection with the immediate safety of human life and the protection of property when normal communications are not available.

The difficulty is the interpretation of what constitutes an immediate threat to life or property.

During an emergency you may use your radio in any appropriate manner. Even though putting out fires or providing disaster assistance may be the regular business of your fire

department or of the American Red Cross, in these situations the emergency affecting the immediate safety of life or property has occurred, and your amateur radio participation is not only allowed but encouraged.

When does a situation become an Emergency? The key words to define an emergency are immediate safety of human life and the immediate protection of property when normal communications are not available. Obvious examples of an emergency include natural disasters such as tornadoes, hurricanes, blizzards, floods and other forms of severe weather, forest fires, landslides and earthquakes. These typically cause immediate danger to life and property and outages of normal communication such as telephone and public safety radio systems.

Under these guidelines, assisting the Forest Service during a wildfire, allowing a physician to use your radio or performing Red Cross disaster assessment are all legitimate amateur radio operations. Other situations, though, are less clear cut. For example, you spot a motorist, stranded along a suburban highway. Can you call for help on the repeater autopatch. At first this hardly seems like an emergency but it may be a real danger to the stranded motorist. In 1988 a San Francisco Bay Area mother and her daughter were killed when their disabled automobile was struck from behind. They were parked well off the right side of the freeway, emergency flashers on, with the hood up and in open daylight. Could you have called for a tow truck? Absolutely!

At the scene of an accident, can you hand your radio to an unlicensed person such as the fire chief? Absolutely, as long as you remain the control operator. This is merely standard third party operation. In fact this is generally the most efficient way to provide communications to an agency during an emergency. Rather than relay the information yourself why not put the sender and recipient on the radio. This eliminates errors and is much more efficient.

Public Event Communications

The FCC encourages activities within amateur radio. However much of the confusion over ham radio public service communications stems from a confusing report and order issued by the FCC in 1983 and from a letter written to the FCC in 1984 regarding support of the New York City Marathon.

One of the purposes of amateur network had been to inform the general public and possibly the news media, of the race status via a public address system at each mile marker. Clearly this amounted to using amateur radio for purposes that are prohibited by the rules. They basically asked if it was OK for the Amateur network to be broadcast over the public address system. Quiet correctly the FCC replied that reporting the position of lead runners via the amateur network and the public address system ran afoul of the prohibition on broadcasting to the public.

But contrary to widespread belief the FCC did NOT prohibit amateurs from assisting at events where there are paid participants. Acceptable activities, the FCC wrote, are not determined by the profit objectives of the sponsor, nor by the pay status of other participants.

Although some transmitted communications could incidentally benefit a sponsor, we do not view such communications as violations of the rules where their main purpose is to provide a service to the public.

Further, and again contrary to popular opinion, the FCC did NOT rule that, in general, it is illegal to transmit lead runner position reports. At many races, the race director needs to know the positions of the lead runners, the pack and the last runners so he can correctly position the first aid, ambulance and water support crews. If that is the purpose of the lead runner reports, then this function is in the interest of the runner and spectator safety and is a legal function of the amateur radio service.

Two additional items that are worthy of covering in this material are the Use Tactical Callsigns and financial compensation.

Tactical callsigns are often used when working with other agencies during an emergency or during large public service activities. For example, during a running race, names like finish line, mile 1, mile 2, First Aid 1 and Water Truck quickly identify each function and eliminate confusion when working with other agencies such as fire departments, where amateur callsigns are meaningless. The use of tactical callsigns in no way relieves the operator from the obligation to properly identify their station according to FCC rules.

Can you receive payment for you amateur radio assistance? No. The FCC regulations prohibit payments for the use of an amateur radio station. This rule does not prohibit you for being reimbursed for incidental expenses unrelated to your radio communication. If you assist a disaster scene 100 miles from your home you are not prohibited from receiving reimbursement for your out of pocket travel expense unrelated to your radio communication. For example, if as an American Red Cross Disaster Services volunteer you are flown to the scene of a disaster where you happen to use amateur radio as part of the relief effort, you would not be required to pay your own airfare.

Source: Kentucky Amateur Radio Web Site – www.kyham.net