“PRINCIPLES OF DISASTER COMMUNICATION”

Outline taken from ARRL Public Service Communications Manual

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.

1. Keep the QRM (Man Made Interference) 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.

2. 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 rag chewing 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."

3. Avoid spreading rumors. During and after a disaster situation, especially on the phone bands, you may hear almost anything. Unfortunately, much misinformation is transmitted. Rumors are started by expansion, deletion, amplification or modification of words, exaggeration or interpretation. 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.

4. Authenticate all messages. Every message which purports to be 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.

5. 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.

6. 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

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

Voice Mode

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

Digital Modes

1. Less QRM in most amateur bands.
2. Secrecy of communications--contents of communications are much less likely to be intercepted by the general public to start rumors or undue concern.
3. More widespread availability of operators.
4. Greater speed in communications where a record is needed than some of the other modes.
5. Most digital modes will have error detection.
6. Win-link 2000 offers radio e-mail that interfaces with most popular e-mail client programs, like Microsoft Outlook Express and Mozilla Thunderbird. It is exceptionally easy to install and use. The new Paclink MP adds telnet, VHF/UHF packet radio, and HF Pactor radio channels for WL2K connectivity.
7. **APRS** is designed to support rapid, reliable exchange of information for local, tactical real-time information, events or nets. The concept, which dates back to the mid 1980's, is that all relevant information is transmitted immediately to everyone in the net and every station captures that information for consistent and standard display to all participants. APRS established standard formats not only for the transmission of POSITION, STATUS, MESSAGES, and QUERIES, it also establishes guidelines for display so that users of different systems will still see the same consistent information, displayed in a consistent manner independent of the particular display or mapping system in use.

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.

7. 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 amateur which are available in the absence of amateur channels should be utilized without fear of favoritism in the interest of getting the message through.

8. 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.

9. 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 EC's before the time of need so that they will know how to best respond.