Chapter One: Amateur Radio Emergency Service ®

(ARES ®)

The Amateur Radio Emergency Service ® (ARES ®) consists of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in the ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an Amateur Radio service, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for membership.

1.1 ARES Organization

There are four levels of ARES organization--national, section, district and local. National emergency coordination at ARRL Headquarters is under the supervision of the ARRL Membership and Volunteer Programs Manager, who is responsible for advising all ARES officials regarding their problems, maintaining contact with federal government and other national officials concerned with amateur emergency communications potential, and in general with carrying out the League's policies regarding emergency communications.

1.2 Section Level

At the section level, the Section Emergency Coordinator is appointed by the Section Manager (who is elected by the ARRL members in his or her section) and works under his/her supervision. In most sections, the SM delegates to the SEC the administration of the section emergency plan and the authority to appoint District and local ECs, Assistant SECs and Assistant DECs. Some of the ARRL sections with capable SECs are well-organized. A few have scarcely any organization at all. It depends almost entirely on who the section members have put into office as SM and whom he/she has appointed as SEC.

1.3 Local Level

It is at the local level where most of the real emergency organizing gets accomplished, because this is the level at which most emergencies occur and the level at which ARES leaders make direct contact with the ARES member-volunteers and with officials of the agencies to be served. The local EC is therefore the key contact in the ARES. The EC is appointed by the SEC, usually on the recommendation of the DEC. Depending on how the SEC has set up the section for administrative purposes, the EC may have jurisdiction over a small community or a large city, an entire county or even a group of counties. Whatever jurisdiction is assigned, the EC is in charge of all ARES activities in his area, not just one interest group, one agency, one club or one band.

1.4 District Level

In the large sections, the local groups could proliferate to the point where simply keeping track of them would be more than a full-time chore, not to mention the idea of trying to coordinate them in an actual emergency. To this end, SECs have the option of grouping their EC jurisdictions into logical units or "districts" and appointing a District EC to coordinate the activities of the local ECs in the district. In some cases, the districts may conform to the boundaries of governmental planning or emergency-operations districts, while in others they are simply based on repeater coverage or geographical boundaries. **Figure 2** depicts the typical section ARES structure.
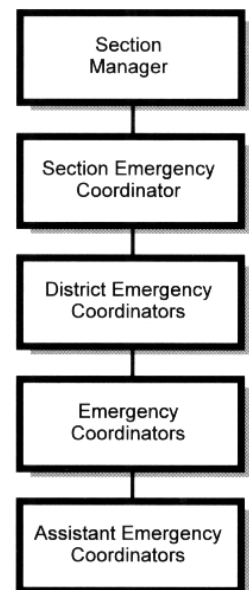
1.5 Assistant ECs

Special-interest groups are headed up by Assistant Emergency Coordinators, designated by the EC to supervise activities of groups operating in certain bands, especially those groups which play an important role at the local level, but they may be designated in any manner the EC deems appropriate.

1.6 Planning Committee

These assistants, with the EC as chairman, constitute the local ARES planning committee and they meet together from time to time to discuss problems and plan projects to keep the ARES group active and well-trained.

There are any number of different situations and circumstances that might confront an EC, and his/her ARES unit should be organized in anticipation of them. An EC for a small town might find that the licensed amateur group is so small that appointing assistants is unnecessary or

undesirable. On the other hand, an EC for a large city may find that even his assistants need assistants and that sometimes it is necessary to set up a special sub-organization to handle it. There is no specific point at which organization ceases and operation commences. Both phases must be concurrent because a living organization is a changing one, and the operations of a changing organization must change with the organization.

1.7 Operation and Flexibility

We have discussed how a typical ARES unit may be organized. Just what shape the plan in your locality will take depends on what your EC has to work with. He/she uses what he/she has, and leaves provision in the plan for what he/she hopes, wants and is trying to get. Flexibility is the keynote. The personnel, equipment and facilities available today may not be available tomorrow; conversely, what is lacking today may be available tomorrow. In any case, bear in mind that organizing and planning are not a one-person task. The EC is simply the leader, or, as the title indicates, the coordinator. His/her effectiveness inevitably will depend on what kind of a group he/she has to work with. Make yourself available to your EC as a member of his planning committee, or in any capacity for which you think you are qualified.

Local ARES operation will usually take the form of nets -- HF nets, VHF (repeater) nets, even RTTY, packet or other special-mode nets, depending on need and resources available. Your EC should know where your particular interests lie, so that you can be worked in where your special talents will do the most good.

It is not always possible to use the services of all ARES members. While it is general policy that no ARES member must belong to any particular club or organization to participate in the program, local practical considerations may be such that you cannot be used. This is a matter that has to be decided by your EC. In some cases, even personality conflicts can cause difficulties; for example, the EC may decide that he cannot work with a particular person, and that the local ARES would be better served by excluding that person. This is a judgment that the EC would have to make; while personality conflicts should be avoided, they do arise, more often than we would prefer. The EC on the job must take the responsibility for making such subjective evaluations, just as the SEC and DEC must evaluate the effectiveness of the job being done by the EC.

1.8 ARES Operation During Emergencies and Disasters

Operation in an emergency net is little different from operation in any other net, requires preparation and training. This includes training in handling of written messages--that is, what is generally known as "traffic handling." Handling traffic is covered in detail in the ARRL *Operating Manual*. This is required reading for all ARES members--in fact, for all amateurs aspiring to participate in disaster communications.

The specifications of an effective communication service depend on the nature of the information which must be communicated. Pre-disaster plans and arrangements for disaster communications include:

- Identification of clients who will need Amateur Radio communication services.
- Discussion with these clients to learn the nature of the information which they will need to communicate, and the people they will need to communicate with.
- Specification, development and testing of pertinent services.

While much amateur-to-amateur communicating in an emergency is of a procedural or tactical nature, the real meat of communicating is formal written traffic for the record. Formal written traffic is important for:

- A record of what has happened--frequent status review, critique and evaluation. Completeness which minimizes omission of vital information.
- Conciseness, which when used correctly actually takes less time than passing informal traffic.
- Easier copy--receiving operators know the sequence of the information, resulting in fewer errors and repeats.

When relays are likely to be involved, standard ARRL message format should be used. The record should show, wherever possible:

1. A message number for reference purposes.
2. A precedence indicating the importance of the message.
3. A station of origin so any reply or handling inquiries can be referred to that station.
4. A check (count of the number of words in the message text) so receiving stations will know whether any words were missed.
5. A place of origin, so the recipient will know where the message came from (not necessarily the location of the station of origin).
6. Filing time, ordinarily optional but of great importance in an emergency message.
7. Date of origin.

The address should be complete and include a telephone number if known. The text should be short and to the point, and the signature should contain not only the name of the person sending the message but his title or connection, if any.

Point-to-point services for direct delivery of emergency and priority traffic do not involve relays. Indeed, the full ARRL format is often not needed to record written traffic. Shortened forms should be used to save time and effort. For example, the call sign of the originating station usually identifies the place of origin. Also, the addressee is usually known and close by at the receiving station, so full address and telephone number are often superfluous. In many cases, message blanks can be designed so that only key words, letters or numbers have to be filled in and communicated. In some cases, the message form also serves as a log of the operation. Not a net goes by that you don't hear an ARL Fifty or an ARL Sixty One. Unfortunately, "greetings by Amateur Radio" does not apply well during disaster situations. You may hear an ARL text being used for health and welfare traffic, but rarely during or after the actual disaster. Currently, no ARL text describes the wind speed and barometric pressure of a hurricane, medical terminology in a mass casualty incident or potassium iodide in a nuclear power plant drill. While no one is suggesting that an ARL text be developed for each and every situation, there is no reason why

amateurs can't work with the local emergency management organizations and assist them with more efficient communications.

Amateurs are often trained and skilled communicators. The emergency management community recognizes these two key words when talking about the Amateur Radio Service. Amateurs must use their skills to help the agencies provide the information that needs to be passed, while at the same time showing their talents as trained communicators who know how to pass information quickly and efficiently. We are expected to pass the information accurately, even if we do not understand the terminology.

Traffic handlers and ARES members are resourceful individuals. Some have developed other forms or charts for passing information. Some hams involved with the SKYWARN program, for instance, go down a list and fill in the blanks, while others use grid squares to define a region.

Regardless of the agency that we are working with, we must use our traffic-handling skills to the utmost advantage. Sure, ARL messages are beneficial when we are passing health and welfare traffic. But are they ready to be implemented in times of need in your community? The traffic handler, working through the local ARES organizations, must develop a working relationship with those organizations who handle health and welfare inquiries. Prior planning and personal contact are the keys to allowing an existing National Traffic System to be put to its best use. If we don't interface with the agencies we serve, the resources of the Amateur Radio Service will go untapped.

Regardless of the format used, the appropriate procedures cannot be picked up solely by reading or studying. There is no substitute for actual practice. Your emergency net should practice regularly--much more often than it operates in a real or simulated emergency. Avoid complacency, the feeling that you will know how to operate when the time comes. You won't, unless you do it frequently, with other operators whose style of operating you get to know.

Chapter Two: Simulated Emergency Test (SET)

The ARRL Simulated Emergency Test is a nationwide exercise in emergency communications, administered by ARRL Emergency Coordinators and Net Managers. Both ARES and the National Traffic System (NTS) are involved. The SET weekend gives communicators the opportunity to focus on the emergency communications capability within their community while interacting with NTS nets. SET weekend is held in October, and is announced in *QST*.

2.1 Purpose of SET

1. To find out the strengths and weaknesses of ARES and NTS, the Radio Amateur Civil Emergency Service (RACES) and other groups in providing emergency communications.
2. To provide a public demonstration -- to served agencies such as Red Cross, Emergency Management and through the news media -- of the value to the public that Amateur Radio provides, particularly in time of need.
3. To help radio amateurs gain experience in communications using standard procedures and a variety of modes under simulated- emergency conditions.

2.2 SET Format

The scoring format reflects broad objectives and encourages recruitment of new hams and use of digital modes for handling high-volume traffic and point-to-point Welfare reports out of the affected simulated-disaster area. Participants will find SET an opportunity to strengthen the VHF-HF link at the local level, thereby ensuring that ARES and NTS are working in concert. The SET will give all levels of NTS the chance to handle exercise-related traffic. The guidelines also recognize tactical traffic on behalf of served agencies.

ARES units and other groups are free to conduct their SETs anytime during September 1 and November 30 if an alternative date is preferred. The activity period should not exceed 48 hours. The deadline for receipt of all reports is January 31. A complete array of reporting forms will be sent to affected Field Organization appointees.

2.3 Preparing for SET

Emergency Coordinators sign up all available amateurs in their area and work them into the SET plans. They make special efforts to attract new Technicians as outlined earlier.

A meeting of all ARES members and prospective members is called to briefly outline (no details!) SET activities, and give general instructions. ECs contact served agencies and explain the intent and overall purpose of the SET, offer to send test messages to other branches of their agencies, and invite officials to ARES meetings and SET operating sites. Publicity is arranged in

consultation with an ARRL Public Information Officer in local newspapers and radio/TV stations.

2.4 During the SET

The "emergency" situation is announced and the emergency net is activated. Stations are dispatched to served agencies. Designated stations originate messages on behalf of served agencies. Test messages may be sent simulating requests for supplies. Simulated emergency messages (just like real emergency messages) should be signed by an authorized official. Tactical communications for served agencies is emphasized.

At least one session -- or substantial segment of a session -- of the local net should be conducted on emergency-only basis. Or, if a repeater is on emergency power, only emergency-powered stations should be allowed to operate through the repeater for a certain time period.

2.5 After the SET

An important post-SET activity is a critique session to discuss the test results. All ARES (and RACES) members should be invited to the meeting to review good points and weaknesses apparent in the drill.

2.6 NTS in SET

The main function of NTS in an emergency situation is to tie together all of the various local activities and to provide a means by which all traffic destined outside of a local area, section or region can be systematically relayed to the addressee.

The interface between NTS and ARES lies in the liaison function between local nets and other NTS nets, particularly at the section level. Responsibility for representation of the local network on the section net lies with the local net manager who may or may not be the EC.

At least one net session or substantial segment of a session should be conducted on emergency power. A surprise session or two should be conducted.

2.7 Summary

One of the first steps on the way to a successful SET is to try to get as many people involved as possible, especially new hams. In a real emergency, we find amateurs with all sorts of varied interests coming out of the woodwork. Get them involved in SET so they will know more about how emergency communications should be handled. Promote SET on nets and repeaters, and sign up new, enthusiastic Technicians.

Chapter Three: ARES Mutual Assistance Team

(ARESMAT) Concept

The ARESMAT concept recognizes that a neighboring section's ARES resources can be quickly overwhelmed in a large-scale disaster. ARES members in the affected areas may be preoccupied with mitigation of their own personal situations and therefore not be able to respond in local ARES operations.

Accordingly, communications support must come from ARES personnel outside the affected areas. This is when help may be requested from neighboring sections' ARESMAT teams.

To affect inter-sectional support mechanisms, each Section Emergency Coordinator (SEC) should consider adopting the following principles in their ARES planning:

- Pre-disaster planning with other sections in the Division, and adjoining sections outside the Division. Planning should be conducted through written memoranda, and in-person at conventions and director-called cabinet meetings. An ARESMAT inter-sectional emergency response plan should be drafted.
- Development of a roster of ARESMAT members able, willing and trained to travel to neighboring sections to provide communication support inside the disaster area.
- Inter-sectional communication/coordination during and immediately following the onslaught of the disaster.
- Post-event evaluation and subsequent revision/updating of the inter-sectional emergency response plan.

When developing ARESMAT functions, ARES leadership should include the following basic action elements:

3.1 Pre-Departure Functions

Team leaders should provide ARESMAT members with notification of activation/assignment. Credentials should be provided for recognition by local authorities. They should provide a general and technical briefing on information drawn principally from the requesting authority, supplemented by reports from Amateur Radio, commercial radio, W1AW bulletins and ARRL officials. The briefing should include an overview of equipment and communication needs, ARESMAT leadership contacts and conditions in the disaster area.

The host SEC's invitation, transportation (including routes in disaster area) and accommodations considerations, and expected length of deployment should all also be reviewed with the team members.

3.2 In-Travel Functions

Before and while in travel to the affected areas, team leaders should review the situation's status with the team: job assignments, checklists, affected area profile, mission disaster relief plan,

strengths and weaknesses of previous and current responses, maps, technical documents, contact lists, tactical operation procedures and response team requirements.

3.3 Arrival Functions

Upon arrival, team leaders should check with host ARES officials and obtain information about frequencies in use, current actions, available personnel, communication and computer equipment, and support facilities that could be used by the team to support the relief effort. The host's ARES plan in effect for the disaster should be obtained. A priority upon arrival should be the establishment of an initial intra-team communication network and an HF or VHF channel back to the home section for morale traffic.

Team leaders should meet with served agencies, Amateur Radio clubs' communications staff, local ARRL communications authority, and others as needed to obtain information and coordinate the use of frequencies. Communication site selections should take into account team requirements and local constraints.

3.4 In-situ Functions

Team leaders should make an initial assessment of functioning communication facilities, and monitor host ARES officials' communications, and other response team relief efforts to coordinate operations and reduce duplication of effort. Team members should be monitored and their capabilities to perform their duties evaluated. Proper safety practices and procedures must be followed. A daily critique of communication effectiveness with served units and communication personnel should be conducted.

3.5 Pre-Demobilization and Demobilization Functions

An extraction procedure for ham communicators should be negotiated with served agencies and host ARES officials before it is needed. To get volunteers' commitment to travel and participate, they must be assured that there will be an end to their commitment. Open-ended commitments of volunteers are undesirable, partly because they make potential volunteers hesitate to become involved.

Leaders must coordinate with the host ARES officials and served agencies, and other functions to determine when equipment and personnel are no longer needed. A demobilization plan should be in effect.

A team critique, begun on the trip home, should be conducted. Individual performance evaluations on team members should be prepared. Copies of critiques should be sent to both the home SEC and in-disaster SEC. Problems stemming from personality conflicts should be addressed and/or resolved outside of formal reports, as they only provide distractions to the reports. Equipment should be accounted for.

A post-event evaluation meeting should always be conducted, and a final report prepared so that an update to the inter-sectional ARESMAT plan can be made.

3.6 ARESMAT Member Qualifications

The individual filling the role of ARESMAT member must have high performance standards, qualifications, experience, and the ability to work with a diverse group of team members that will be required to provide relief to the affected areas. He or she must be able to work efficiently in a disaster relief operation under the most adverse conditions.

Additionally, a member should have demonstrated ability to be an effective team player, in crisis situations, a strong personal desire and strong interpersonal communication skills. A knowledge of how ARRL, Red Cross and other agencies function at both the national and local levels is helpful. A working knowledge of the incident command system is useful as many events are managed under this system.

Members should be respected and recognized by officials and peers as competent communicators and should understand a broad range of disaster response organizations' capabilities and communication requirements.

Important: Members must be available with the consent of their employer to participate!

They should be physically fit to perform arduous work under adverse environmental conditions.

3.7 Summary

It should be noted that there is a fine balance of authority over a deployed ARESMAT. The in-disaster SEC (or delegated authority) should be able to make decisions as to use and deployment of an incoming team. Therefore, an incoming team should be prepared to submit themselves to such authority; this is evidenced by the fact that any team, internal or external, has only a limited view of the overall operation. The supervising authorities will have a better overview of the whole situation.

In turn, however, the in-disaster authority should be discouraged from abusing the resources of incoming teams. Should a team no longer be required, or a situation de-escalate, the team should be released at the earliest possible time, so that they may return home to their own lives.

The ARESMAT tool should be one of last resort. Whenever possible, amateurs from the affected section should be used for support. It is a lot to ask of a volunteer to travel far from home, family and job for extended periods of arduous and potentially dangerous work.

Chapter Four: ARES and RACES

After World War II, it became evident that the international situation was destined to be tense and the need for some civil-defense measures became apparent. Successive government agencies designated to head up such a program called on amateur representatives to participate.

In the discussions that followed, amateurs were interested in getting two points across: First, that Amateur Radio had a potential for and capability of playing a major role in this program; and second, that our participation should be in our own name, as an Amateur Radio Service, even if and after war should break out. These principles were included into the planning by the formulation of regulations creating a new branch of the amateur service, the Radio Amateur Civil Emergency Service, RACES.

Recognition of the role of Amateur Radio as a public service means responsibility. RACES regulations are printed in full in the ARRL publication, *The FCC Rules and Regulations for the Amateur Radio Service*, along with the rest of the amateur regulations. Every amateur should study closely and become familiar with these rules; civil preparedness, now a major function, may become our only on-the-air function if we are plunged into war.

4.1 What is RACES?

RACES, administered by local, county and state emergency management agencies, and supported by the Federal Emergency Management Agency (FEMA) of the United States government. It is a part of the Amateur Radio Service that provides radio communications for civil-preparedness purposes *only*, during periods of local, regional or national civil emergencies. These emergencies are not limited to war-related activities, but can include natural disasters such as fires, floods and earthquakes.

As defined in the rules, RACES is a radiocommunication service, conducted by volunteer licensed amateurs, designed to provide emergency communications to local or state civil-preparedness agencies. It is important to note that RACES operation is authorized by emergency management officials only, and this operation is strictly limited to official civil-preparedness activity in the event of an emergency-communications situation.

4.2 Operating Procedure

Amateurs operating in a local RACES organization must be officially enrolled in the local civil-preparedness agency having jurisdiction. RACES operation is conducted by amateurs using their own primary station licenses and by existing RACES stations.

The FCC no longer issues new RACES (WC prefix) station call signs. Operator privileges in RACES are dependent upon, and identical to, those for the class of license held in the Amateur Radio Service. All of the authorized frequencies and emissions allocated to the Amateur Radio Service are also available to RACES on a shared basis.

While RACES was originally based on potential use for wartime, it has evolved over the years, as has the meaning of civil defense (which is also called civil preparedness), to encompass all types of emergencies.

While operating in a RACES capacity, RACES stations and amateurs registered in the local RACES organization may not communicate with amateurs not operating in a RACES capacity. Such restrictions do not apply when such stations are operating in a non-RACES--such as ARES--amateur capacity. Only civil-preparedness communications can be transmitted.

Test and drills are permitted only for a maximum of one hour per week. All test and drill messages must be clearly so identified. With the approval of the chief officer for emergency planning and applicable state, Commonwealth, district or territory, however, such tests and drills may be conducted for a period not to exceed 72 hours no more than twice in any calendar year.

4.3 ARES and RACES

Although RACES and ARES are separate entities, the ARRL advocates dual membership and cooperative efforts between both groups whenever possible for an ARES group whose members are all enrolled in and certified by RACES to operate in an emergency with great flexibility. Using the same operators and the same frequencies, an ARES group also enrolled as RACES can "switch hats" from ARES to RACES and RACES to ARES to meet the requirements of the situation as it develops. For example, during a "non-declared emergency," ARES can operate under ARES, but when an emergency or disaster is officially declared by a state or federal authority, the operation can become RACES with no change in personnel or frequencies.

This situation is still not well understood and accepted throughout the United States; both ARES and RACES still exist, separately, in many areas. League officials will have to determine the situation in their own area.

Where there is currently no RACES, it would be a simple matter for an ARES group to enroll in that capacity, after a presentation to the civil-preparedness authorities. In cases where both ARES and RACES exist, it is possible to join both or to be involved in either. As time progresses, the goal would be the merger into one strong organization, with coordination between ARES and RACES officials using the same groups of amateurs. In some sections of the U.S. today, the ARES structure has also been accepted as the RACES structure.

4.4 Other Amateur Facilities

There are a number of other Amateur Radio facilities, not sponsored or directly affiliated with the League, which are nevertheless an integral part of our public service effort. Some of these organizations are the monitoring services, MARS, independent nets -- both international and domestic -- and other similar activities. While naturally we want you to participate in organizations sponsored by your League, it's better to participate in a non-League sponsored public service organization than not to participate at all. In this booklet we cannot give details of the operation of these other organizations because there are too many of them, and their operations change too rapidly.

Chapter Five: ARES Principles of

Disaster Communication

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 and should be reviewed by all amateurs, even those not active in disaster communications preparation.

1. 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.

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 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 with 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. This station will be suitable for the work at hand, and 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) The first two advantages of CW, the (2) second advantage of voice mode, plust (3) greater speed in record communication than some of the other modes. In most of these modes, (4) error detection. In addition, (5) digital modes offer the potential for message store and forward capability of "digipeating" messages from point A to point Z via numerous automatically-controlled middle points.

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, 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. Communication support. 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 they are 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.

Chapter Six: Working with Public Safety Officials

Public service communications performed by ARES members are based on a number of requirements. Specifically, we must be accepted by public-safety officials. Once accepted, our continued ability to contribute in times of disaster is based on the efficiency and effectiveness of our performance. While acceptance, image, efficiency and effectiveness are all important to the ongoing working relationships between amateurs and officials, it is the initial acceptance that is often difficult to achieve.

Police and fire officials tend to be very cautious and skeptical concerning those who are not members of the public-safety professions. This posture is based primarily on experiences in which well-intended but somewhat overzealous volunteers have complicated, and in some cases jeopardized, efforts in emergencies. The amateur operator or other volunteer who wishes to be of assistance must be aware of this perception.

The police have generally had their fill of "groupies" or "hangers on." They can ill afford to tolerate frustrated individuals who have always wanted to be police officers or firefighters, but for one reason or another have never reached that objective. There seems to be an abundance of people, especially during a crisis, who will quickly overstep the limits of their authority and responsibility if they are given any opportunity to assist in an official capacity. In their zeal, such persons often inhibit the actions of trained personnel. Worse yet, they can make an already dangerous situation even more so by their getting in the way. With rare exception, Amateur Radio operators do not fall into this category. The problem is, however, that police officers in the midst of stressful operations may have extreme difficulty in distinguishing between those volunteers who are problem solvers and those who are problem makers.

Those very few hams who behave emotionally, are overzealous in offering their services or in describing their abilities or who abuse the established limits of their authority are doing the amateur fraternity a real disservice. The typical police officer or firefighter, like the typical civilian, does not understand the vast differences among various radio services, the types of licensing involved or the high level or expertise and discipline that is characteristic of the Amateur Radio Service.

When an amateur arrives at a scene and jumps out of a vehicle with a hand-held in each fist and two more clipped to the belt, all squawking at once, officials simply don't know how to respond. They are either overwhelmed by equipment they don't understand, or so awe-struck that they try to avoid what they perceive as threatening.

How Amateur Radio volunteers are accepted depends on their establishing a track record of competent performance in important activities. This begins with convincing officials that amateurs offer a cost-effective (otherwise known as free) substitute for functions previously paid for by the taxpayer. Local radio amateurs also must demonstrate that they are organized, disciplined and reliable, and have a sincere interest in public service.

The most effective way to accomplish this is for you, as head of your communications group, to initiate the contact with public safety agencies in an official capacity. This is better than having

individual amateurs, particularly outside an organized structure, making uncoordinated and poorly prepared contacts that often result in an impression that your group is disorganized.

Approach that first meeting well-prepared, and give a concise presentation of Amateur Radio's capabilities. Illustrate accomplishments with newspaper clippings, *QST* articles, etc., highlighting Amateur Radio public service. Discuss the existing Amateur Radio structure, emphasizing that a certain number of qualified operators will be able to respond to the public's needs.

Demonstrate the reliability and clarity of amateur gear. Nothing is more impressive than asking for a roll call on a 2-meter repeater using a hand-held radio in the police or fire chief's office and having amateurs respond with full-quieting signals from locations where municipal radios are normally ineffective. Such a demonstration several years ago convinced officials in Laguna Beach, California to ask for the assistance of the South Orange County ARES. The wisdom of this decision became evident a short time later when that seaside resort community was hit by a series of local emergencies.

Suggest specific ways in which amateurs can be of assistance. Indicate you are aware that police and fire radio frequencies are usually saturated with tactical or operational traffic in emergencies, and offer to provide an administrative frequency for use in overall management and coordination of the relief effort. More importantly, offer to demonstrate what you are capable of doing by supplying a demonstration of your communications capabilities. It is of tremendous importance that you emphasize that the services supplied by your group will free public-safety officers for other duties.

Demonstrate how easily amateurs and their equipment can interface with public-safety efforts. A perfect way to do this is to demonstrate equipment that can be made operational quickly inside the headquarters building, in a mobile command post or in field units.

Express your group's willingness to meet the needs of the sponsor or agency you are dealing with. Show a readiness to provide training to your membership. Offer public-safety officials the opportunity to have their own representatives appear before your group and provide orientation and training they feel is essential.

Finally, be realistic and objective in terms of what your group promises to provide. Be fully prepared to keep all promises you make. Remember to be organized and competent. Once you have implemented these suggestions, be patient. The requests for your services will be forthcoming, perhaps in a volume you had not anticipated!

Grass-roots action is the name of the game when it comes to achieving effective liaison. With the proper ground work accomplished in advance, recognition among those sponsors and agencies having communications needs can be dramatically increased. It's symbiotic; these people need us, and we want to help. Now that all the necessary introductions have been made, the rest is easy, for we are indeed the experts in meeting communications requirements of every sort.

Chapter Seven: On Serving "Served" Agencies

Meeting the communications needs of served agencies is a challenging, and often daunting proposition in today's complex disaster/emergency relief arena. With the proliferation of emergency relief organizations, increasingly sophisticated needs, all competing for that scarce resource -- the volunteer -- coupled with the emergence of other non-ARES amateur providers, it's enough to make an ARES member's head spin. As more of the population moves to disaster-prone areas, and less government funding is available, more pressure is consequently placed on agencies to appropriately use the volunteer sector for support of their missions in disaster mitigation.

The League's formal relationships with served agencies are vitally important and valuable to radio amateurs. They provide us with the opportunity to contribute meaningfully to the relief of suffering among our fellow human beings. Another substantial benefit not to be overlooked is that the relationships lend legitimacy and credibility for Amateur Radio's public service capability, and that is important when it comes time to defend our frequencies and privileges before the FCC and Congress. So, ARRL's relationships with the emergency/disaster relief world need to be nurtured.

7.1 What to Do?

First, it is imperative that a detailed local operational plan be developed with agency managers in the jurisdiction that set forth precisely what each organization's expectations are during a disaster operation. ARES and agency officials must work jointly to establish protocols for mutual trust and respect. Make sure they know who the principle ARES official is in the jurisdiction. All matters involving recruitment and utilization of ARES volunteers are directed by him/her, in response to the needs assessed by the agency involved.

Make sure ARES counterparts in these agencies are aware of ARES policies, capabilities and perhaps most importantly, resource limitations. Let them know that ARES may have other obligations to fulfill with other agencies, too. Technical issues involving message format, security of message transmission, disaster welfare inquiry policies and others should be reviewed and expounded upon in the detailed local operations plans.

7.2 Pulled Every Which Way But Loose

Another challenge ARES faces is the number of agencies that demand communications support during a disaster. A local ARES unit only has so much to go around, and it can't possibly meet every agency's needs.

While the League maintains several formal Memoranda of Understanding (MOU) with disaster and emergency response agencies including the Federal Emergency Management Agency (FEMA), National Weather Service, Salvation Army, National Communications System and Associated Public- Safety Communications Officials - International. These documents merely set

forth a framework for possible cooperation at the local level. While they are designed to encourage mutual recognition, cooperation and coordination, they should not be interpreted as to commit, obligate or mandate in any way that an ARES unit *must* serve a particular agency, or meet *all* of its needs, in a jurisdiction. MOUs are "door openers," to help you get your foot in the door. It's up to you to decide whether or not to pursue a local operational plan with an agency, a decision that will be based on a number of factors including the local needs of the agency and the resources you have available to support those needs, given that you may have other prioritized commitments as well.

To address this, sit down with your fellow ARES members, EC and SEC, and determine what agencies are active in your area, evaluate each of their needs, and which ones you are capable of meeting. Then prioritize these agencies and theri needs. After you're all in agreement, sit down with your counterparts in each of the agencies and execute local, detailed operational plans and agreements in light of your priority list based on the above.

Given the above, however, you should also be working for growth in your ARES program, making it a stronger, more valuable resource and hence able to meet more of the agencies' local needs. A stronger ARES means a better ability to serve your communities in times of need and a greater sense of pride for Amateur Radio by both amateurs and the public. That's good for all of us.

7.3 Another Kind of Competition

With a strong ARES program, and a capability of substantially meeting most of the local served agencies' needs, you might avoid another problem that is cropping up in some parts of the country -- competition with emerging amateur groups providing similar communications services outside of ARES. Some of these groups may feel that their local ARES doesn't do the job, or personality conflicts and egos get in the way, so they set up shop for themselves, working directly with agency officials, and usurping ARES' traditional role. Some agencies have been receptive to their assistance.

There continues to be "RACES versus ARES" polarization in some areas. And some agencies, including at least one with statewide jurisdiction, are forming their own auxiliary communications groups, and recruiting their own hams, some away from ARES.

There's not much you can do about this, except to work to find your ARES program's niche and provide the best services you can as outlined above. Strive for growth and enhancement of ARES members' abilities, and make sure you present a "professional" face to potential "served" agencies and your opportunities will grow. Make your program better than the next guy's, and agencies will be more attracted to you.

If possible, setting egos and personalities aside, seek out these other groups and take the initiative to try to establish a rapport, and the fact that "we're all in this *together,*" for the good of the public and Amateur Radio. With good communication, mutual respect and understanding between you and the other groups, at the least, you should be able to coordinate your program's missions with theirs (i.e., divide up the pie, or who will do what for which agency) to foster an

efficient and effective Amateur Radio response overall. At best, you may find other groups willing to fold their tents and join your camp! Try it.