

*ARFD Handbook*  
*for the*  
*Emergency Coordinator*  
*and*  
*Assistant Emergency Coordinator*  
*of*  
*Brown County Ohio*

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## Preface

*It has been my experience, that one of the first things to stop working at peak capacity, in a disaster, is the human brain. Yet, because lives could be on the line, your participation in an ARES event, as an amateur radio operator, requires you to conduct yourself, professionally and to co-operate with others to the best of your ability. So how does one balance these two extremes?*

*I have found, that one of the easiest ways to calm individuals in a stressful situation, is to give them a focus. We have all seen it demonstrated a thousand times in a T.V. movie where the hysterical individual is given a slap on the face. The pain of the slap acts as a focus point for the hysterical individual, often bringing that person back under control, and it allows them to get their wits about them.*

*It is for the above reasons, that I have created this document. I think of it as my slap on the face in an emergency, allowing me to focus on and minimize the number of problem(s) at hand in a disaster situation. It is my goal to have contained amongst the pages of this document, the pertinent information, that you will need to be able to fulfill your appointed role in the next ARES event that comes your way. I hope that the information contained herein will answer some, if not all of the basic questions that always pop up early on in a disaster; "Who is in charge, How do I contact them, What is my role in all of this".*

*Whatever this document is, it is not a static piece of work! Just as heat treating toughens metal, so will use of this document during a disaster, help you to realise what will make it a better one. That is, so long as you help to make sure that it contains the useful information, you need. This means, jotting your notes in the spaces provided, and getting back to me with your feedback on what should or shouldn't be there.*

*So..... Please read through this at your earliest convenience, become familiar with the location of the information that this document contains, and most importantly, place it at a place that is easily gotten to when disaster strikes. Let's hope we all never need it.*

Jeff

# The Amateur Radio Emergency Service (ARES)

## 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 somewhat at random 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, 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

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 record 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, plus greater speed in record communication than some of the other modes, and—in most of these modes—error detection. In addition, digital modes offer the potential for message store-and-forward capability from within the disaster site to the "outside world." Finally, packet provides the 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 (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 ECs before the time of need so that they will know how to best respond.

## 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 reckless abandon. 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 of 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.

**THE  
OHIO SECTION EMERGENCY RESPONSE PLAN (O.S.E.R.P.) FROM THE  
AMERICAN RADIO RELAY LEAGUE  
FOR THE  
OHIO SECTION AMATEUR RADIO EMERGENCY SERVICE**

When using this plan, OSERP, it is MOST important to remember...

1. A.R.E.S. goes into a disaster area ONLY at the request of a served agency or qualified Public Safety Service.
2. It is NOT the responsibility, nor function of A.R.E.S. To organize, direct or coordinate the activities of others. A.R.E.S. is to provide RELIABLE, coordinated, emergency RADIO COMMUNICATIONS for served agencies upon REQUEST.
3. The Emergency Coordinator is responsible for A.R.E.S. Operations within his/her county as detailed herein; in the "Operating System" and the "Emergency Coordinators Handbook".
4. You should not make any type of command decision unless it is a life-threatening situation which requires IMMEDIATE action.

**ALERTING**

Activation/Notification shall follow the Emergency Alerting Procedures Flow Chart, see Attachment #A.

In most situations, the local Emergency Coordinator will be the first ARRL appointee to be made aware of the emergency; therefore, the flow chart essentially starts with the E.C.

If another Amateur receives first news of an emergency, the contact paths will be reversed, or altered, as needed to be sure all essential contacts are made.

If telephones are operating, initial notification will probably be made by telephone.

If telephone service is disrupted, the Section ARES frequency shall be utilized (3.875 MHz) for alerting and notification to the extent necessary, with subsequent use of this frequency for administrative coordination purposes. Alternate HF frequencies will be assigned for other functions: Wide-area agency coordination; emergency traffic; health & welfare traffic, etc.

**1. Purpose**

The Ohio Section Emergency Response Plan (OSERP) is a simple written system and guide to provide a uniform operating system within and among the counties in Ohio. It is intended to be simple and flexible yet be able to provide for your local needs and support. If followed it will do the following:

1. OSERP is designed to assure an orderly and effective communications system for each county and for communications among counties and the state EOC and with other states lithe need arises.
2. OSERP provides a statewide (section wide) notification/activation system to involve our section wide resources should the need arise. This includes other ARES groups in your district, and in other districts plus the NTS system.
3. OSERP includes information to activate the Ohio Section A.R.E.S. and NTS to set up whatever operations an emergency would require.
4. OSERP provides names, telephone numbers, pager numbers and E-mail addresses and Fax numbers for key personnel to facilitate alerting and a phone list for major agencies in each county.
5. OSERP is an operating outline that, when used for interagency communications, allows every involved agency to keep abreast of what is occurring within their area.
6. OSERP may be supplemented with other ARRL publications but please do not deviate from the system established in OSERP.

- OSERP is a system for both large and small scale operations when emergencies arise. It is not intended to be complicated or specific. It is an operating system on which to base local emergency plans. It provides a system for obtaining assistance to local areas and for communicating with other counties, the state EOC, and access to the National Traffic System (NTS).

## **2. Scope**

OSERP is designed as an operating system for all levels of the Ohio Section ARES. It gives specifics for notification of District and Section level personnel plus County Emergency Coordinators and their assistant. County notifications systems for local ARES personnel should be devised by each emergency Coordinator to meet their local needs.

## **3. Distribution**

OSERP may be copied and distributed by DEC. and ECs as required. Every Assistant Emergency Coordinator and key personnel plus the EMA director of each county should have a copy. Copies will be made available to the State EOC and to major served agencies.

## **4. BASIS**

- OSERP is based on operating at the county level. This follows the organizational system used by the State for Emergency Management Agencies and Local Emergency Planning Committees (LEPCs). ARES Emergency Coordinators (ECs) are appointed at the county level with each EC responsible for one county. For administrative purposes groups of counties are grouped together into districts. There are nine (9) ARES Districts in Ohio. Each District has a District Emergency Coordinator (DEC). The responsibilities of the ECs and DECs during emergencies are spelled out in the County Emergency Coordinator Guidelines (5-1) and the District Emergency Coordinator Guidelines (4-i).

## **5. ALERTING**

- When an emergency arises the first knowledge of it are usually at the county level. The immediate response to an emergency is to call up local ARES members and begin establishing communications. This may be accomplished by whatever system each EC has in place in their county. As soon as this is accomplished the EC should inform their DEC and/or SEC of the situation.
- Your DEC and the SEC should be contacted by phone or pagers if possible. In the event of any major disaster all Counties, the DECs and the SEC should monitor 3.875 Mhz. for updates and information if the local communications are out. For everyone's assistance the new EC roster contains phone numbers, pagers, E- mail address, and Fax numbers to facilitate communicating with them when the need arises. These additions come from experience gained in recent disaster operations and are intended to enhance the ability of the A.R.E.S. to provided communications assistance.
- In the event of any widespread communications emergency, every EC, DEC and the SEC should have an HF station monitoring 3.875 Mhz.

## **6. Wide Area Nets**

- Operations have proven the need for wide area administrative nets. Once emergency operations have begun and it is apparent that the State will be involved or that there will be more than one (1) county involved an HF station should be included in the operation of the County Control Station to provide a link to the State EOC and allow inter-county communications and the coordination of manpower and assistance from other areas. This also allows the DEC and SEC to communicate directly with the involved area.
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# District Emergency Coordinator Guidelines

## 7. DEC GUIDELINES

When an emergency exists within the section or when the SEC, SM or another DEC the following operations guide will be followed by all DECs:

1. Each DEC will stay in their district and be ready and available to provide assistance, as requested, by the SI or SM or other DECs if the SEC is not available.
2. NO DEC will leave their district without the express consent of the SEC.
3. DECs will be responsible for the following:
  - A. When there is an emergency in their district each DEC is responsible for:
    1. Determining which counties are directly involved.
    2. Notifying the SEC of the emergency and keeping the secretary updated.
    3. Determining which counties are likely to become directly involved if the emergency spreads.
    4. Finding out the needs of the involved county(s) both immediate and projected.
    5. Notifying the other ECs in the district if the emergency could spread or if assistance could be needed.
    6. Setting up an administrative net (3.875 Mhz) for maintaining communications among the effected counties, the Ohio EMA and other counties and districts as required.
    7. Obtain assistance for the affected area(s).
      - A. From other district counties in their district.
      - B Request help from the SEC (to get assistance from other districts).
    8. Work with the SEC and other DECs to insure that operations include all agencies, groups and government entities that are involved.
  - B. When notified of an emergency in another ARES District or another Section:
    1. Be ready to assemble assistance from your counties if requested.
    2. Notify your ECs of the possible need to provide assistance to another area.
    3. Maintain communications with the SEC.
    4. Notify the SEC of any changes in your location or any additional means to communicate with you.
      - A Notify the SEC of any changes that would effect contacting you.
        1. Additional or different pager numbers
        2. Cell phone numbers
        3. FAX numbers
        4. Other frequencies being used in your district
5. When operations in your area are concluded be sure the following are accomplished prior to securing.
  1. Check with your ECs to to make sure all ARES personnel are accounted for.
  2. Pass along our appreciation to all participants.
  3. Be sure all s are notified that operations are concluded.
6. Collect reports from ECs in your district

1. Make recommendations for certificates

2. File a report with the SEC

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# County Emergency Coordinator Guidelines

## 8. EC GUIDELINES

When an emergency exists within the Section or when the SEC, SM or DEC begin wide area operations the following operations guide will be followed by all ECs:

1. Each EC will stay in their county and be ready and available to provide assistance, as requested, by the DEC or SEC if the DEC is not available.
2. NO EC will leave their county without the express consent of their DEC or SEC.
3. ECs will be responsible for the following:
  - A. When there is an emergency in their county each EC is responsible for:
    1. Determining the extent of the problem and evaluating their manpower needs
    2. Establish operations based on the guidelines in the Section Operating System
    3. Notify your DEC and/or SEC of the emergency
    4. Establishing operating schedules and request assistance from your DEC if required
    5. Keep your DEC and the SEC up to date on the situation in your county
    6. Keep logs and lists of involved amateurs
    7. When operations are over be sure all amateurs are and return home
  - B. When notified of an emergency in another County, ARES District or another Section:
    1. Be ready to assemble assistance from your county if requested
    2. Notify your AECs of possible need to provide assistance to another area
    3. Maintain communications with your DEC and/or SEC
4. Notify your DEC and/or the SEC of any changes in your location or any additional means of communicating with you
  - A. Notify the DEC and/or the SEC of any changes that would effect contacting you.
    1. Additional or different pager numbers
    2. Cell phone numbers
    3. Fax numbers
    4. Frequencies being used in your county
5. When operations in your area are concluded be sure the following are accomplished prior to securing
  1. Make sure all ARES personnel are accounted for
  2. Pass along our appreciation to all participants
  3. Be sure all amateurs are notified that operations have concluded

## 9. OHIO SECTION A.R.E.S. OPERATING SYSTEM

The basis for this system is at the county Level. During any emergency, the EC (Emergency Coordinator) will establish a County Control Station (CCS) from which amateur operations will be controlled and administered. Next, the EC will assign each served agency and/or individual a "Control Station" (CS) to communicate with the "CCS" and serve as a control for local operations. These local stations "CS" would utilize two (2) or more frequencies and operators, one communications with the "CCS" and the other(s) for communications with amateurs working for the served agencies. For organized handling of formal traffic, each county will designate one or more Official Traffic Stations (OTS). These station(s) will operate on the traffic nets as the ONLY station(s) to handle traffic for their County and will interface with the "CCS" and "CS" stations. For operations within the County all "CS", "OTS" and the "CCS" will utilize one frequency for inter-station communications, while using separate frequencies for operations on behalf of their served agencies or groups. The EC for each County will assign ALL frequencies used in his County and will notify the DEC/SEC of these assignments. In case of conflicts with adjacent Counties, the DEC/SEC will act as a Frequency Coordinator. Simplex VHF and UHF frequencies should be used for these operations whenever possible.

This will keep the area repeaters available for use by amateurs shadowing officials or providing wide area coverage for an agency or requiring the use of autopatches. All ARES operations within the County will operate under this system.

The next level to this system is the District. The DEC of each district will maintain operations 3.875 MHz during ALL communications emergencies within the District. The DEC and/or secretary will be in contact with the "CCS" in each county and also with the SEC and SM at State Level. All Inter-County, Intra-District frequencies will be assigned by the DEC/SEC. Any EC needing help from outside his county will contact his DEC/SEC giving a complete list of the number of operators required, how they should be equipped, where to send them and how long they will be needed.

The DEC/SEC will then decide where to get the help from and will contact ECs in these areas to get the required personnel route them directly to their operating assignment. The DEC will oversee intra-district communications and aid the local ECs where needed. At the section level the SEC and SM will oversee operations Section-wide and coordinate the Districts. All Intra-Section and Inter-Section frequencies will be assigned by EC or SM. Interaction from Section to Section will be at the Section level unless it is designated by EC or SM to District or County level. All Section ALL COMMUNICATIONS for SM, SEC and DEC should be taken to 3.875 or routed via their instructions.

The above System is Section-wide and will be followed during ALL emergency operations involving A.R.E.S. Personnel. All Ecs, Assistant ECs and A.R.E.S. personnel should be familiar with this SYSTEM and capable of operating as it prescribes.

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## 10. PERSONNEL NOTIFICATION

The following criteria should be observed for all call-ups of A.R.E.S. Personnel. Please be sure to notify ALL the proper people immediately. In the event that a person is not available notify either the alternate or the immediate superior of that person. This is vital to insure the proper operation of Amateur Radio during an emergency.

### OCCURRENCE NOTIFY

- (A) Public Service Events Notify local A.R.E.S. Personnel and Local Drills
- (B) Emergency In your County Notify local A.R.E.S Personnel, DEC and/or secretary
- (C) Emergency Spreading Notify your DEC and/or SEC and to adjacent county adjacent county EC
- (D) When you need assistance Notify your DEC and/or SEC

When requesting assistance you will need to know the following information:

- (1) Number of amateurs required
  - (2) How long will assistance be needed (you can estimate this)
  - (3) What kind of equipment will they need
  - (4) What kind conditions will they be operating in
-

## 11. LOGGING

### **ALL STATIONS WILL MAINTAIN COMPLETE LOGS**

All fixed stations operating during an emergency must maintain a complete log of their operations. This log will contain the TIME (in UTC) of each message, the CALL of the contacted station and MESSAGE CONTENT of the message. A Copy of all FORMAL TRAFFIC will be kept and become part of the log. Each log sheet will contain the OPERATING CALLSIGN, the location of the station, the call of the operator and be signed by the control operator. Mobiles should log the STATION CALLED, TIME, and brief CONTENT of each message. Each log should contain the operators callsign and date and operators signature.

ALL LOGS will be kept as a part of the A.R.E.S. records. If an operator requires copies for his/her own log. Copies should be made and the originals remain with the A.R.E.S.

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## 12. STATION REQUIREMENTS

1. COUNTY CONTROL STATIONS (CCS) should, if possible, be an existing station that meets the following requirements. They should be located on high ground, have emergency generators either right there or immediately available and have sufficient space to allow at least three (3) operators to operate simultaneously. Again, the use of existing stations, where possible, will save setup time. These stations must be able to operate on 3.875 MHz and at least two (2) vhf/uhf frequencies and are encouraged to make use of other bands (6m, 10m etc.). The EC shall be in direct control of the COUNTY CONTROL STATION and use it to control all amateur operations within his jurisdiction. Other equipment at these stations should include a complete set of maps of the area and adjoining areas plus other emergency supplies deemed necessary.

COUNTY CONTROL STATIONS (CCS) should be located outside of the disaster area to facilitate access and insure the safety of the operators.

2. CONTROL STATIONS (CS) will be set up at the headquarters of each served agency and at local command posts in affected areas. These stations shall be capable of operating on at least two (2) vhf/uhf frequencies. One of these frequencies will be used as a link to the CCS and other CONTROL STATIONS (CSS) while the other one will be used to communicate with operators assigned to that served agency. (additional frequencies may be added if needed).
  3. OFFICIAL TRAFFIC STATIONS (OTS) should be existing stations that are not in the immediate disaster area. These stations should be adequately staffed and able to operate on emergency power and must be capable of operating on 80 Meters and vhf/uhf frequencies. They will maintain communications with the CCS and other agencies as well as other local Amateurs who can handle H&W traffic. One of the main purposes of these OTS stations is to act as direct links to the Section Traffic Nets. During Communication Emergencies these stations would handle ALL incoming and out going formal traffic.
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# Ohio Section A.R.E.S. Operating System Diagram

## SECTION LEVEL

- SEC & SM will oversee operations; will operate on 3.875 Mhz
- coordinates with other sections
- coordinates with the Ohio EOC

## DISTRICT LEVEL

- DEC will operate on 3.875 MHz during all communications emergencies within the District
- reports to SECTION LEVEL
- coordinates with other counties

## COUNTY CONTROL STATION

- EC will establish County Control Station
- reports to DISTRICT LEVEL
- coordinates with amateurs assigned to served agencies (ie, EMA, shelters, hospitals, fire departments, etc)

## OFFICIAL TRAFFIC STATION

- existing stations not in disaster area
  - maintain communications with CCS and other local amateurs who can handle H&W traffic
  - must be capable of operating on 80 meters and VHF/UHF
  - adequately staffed
  - able to operate on emergency power
  - act as direct link to Section Traffic Nets
-

## A.R.E.S. Frequency Assignments

Section: Ohio District: 4 County: Brown

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

### I. Section Wide Frequency Assignments

Function	Frequency
Administrative	3.875 Mhz
Emergency	3.987 Mhz
Traffic	3.9725 Mhz
Data	3.605 Mhz
CW	3.577 MHz

### II. Additional Section and District Frequencies Assignments

Organization	Frequency	Mode

### COUNTY FREQUENCY ASSIGNMENTS: To be made by the county EC

Agency or use	Call sign	Frequency Mhz (may be tactical)

### III. Local Traffic Nets (these link to the County OTS)

Net name	Frequency MHz

### IV. Additional Frequencies Small groups, shadowing officials or direct links

Use	Call sign	Frequency MHz

**OHIO SECTION A.R.E.S. NET  
(OSAN)  
(Attachment H - May 17, 1994)  
Ohio Section ARES Net**

Meets Sunday @ 1700 Hrs. Local time

Frequency = 3.875 MHz.

The Ohio Section ARES Net (OSAN) is NOT a traffic net. OSAN is an administrative and discussion net which is intended only for ARRL Section Officials and ARES Leadership Officials (District Emergency Coordinators and Emergency Coordinators) or their assigned representatives. OSAN is an open forum for these individuals to discuss emergency communications planning in the Ohio Section. All are welcome to monitor this net, but you are asked to submit your comments and suggestions through your county's Emergency Coordinator.

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**OHIO SECTION**  
**(Attachment I-3 - May 17, 1994)**  
**Health and Welfare Traffic Policy:**

**INCOMING**

- I.** In the first 24 hours following a disaster which interrupts normal communications, Ohio will observe a total moratorium on incoming Health and Welfare (H&W) traffic.
- A.** Net Control Stations (NCS) should enforce the moratorium on their net session(s) by refusing to list traffic bound for the disaster area if it bears a Welfare (W) precedence. It is the responsibility of each Net Manager (NM) to see that all of their NCS operators understand this policy.
  - B.** NCS should periodically announce on the Net that the moratorium is in effect so that all Net participants are aware of this policy.
  - C.** Any Ohio station that receives an H&W message bound for the disaster area should immediately service the message back to the originating station, with the explanation, NO OUTLET IN OHIO UNTIL (date)\*. H&W traffic should not be 'stockpiled' in Ohio during the moratorium.
  - D.** The Section Traffic Manager (STM), the Section Manager (SM), or the Assistant Section Manager (ASM) may lift the moratorium on incoming H&W traffic during the initial 24-hour period if each of three conditions are met:
    - 1.** The STM, SM or ASM judge that Ohio's Section Nets are capable of handling the additional traffic load imposed by incoming H&W traffic without adversely affecting their ability to efficiently move messages with higher precedences ('Emergency' or 'Priority');
    - 2.** In consultation with the local EC and traffic handlers in the disaster area, the STM, SM or ASM determine that resources are available to receive the incoming H&W messages, deliver them and originate messages in response, all without adversely affecting higher-priority communications in the disaster area.
    - 3.** The STM, SM or ASM advises all Section Net Managers of the lifting of the moratorium and of the proper routing of incoming H & W traffic, as determined in consultation with-the local EC (or his assignee) or the DEC and the traffic handlers in the disaster area.
- II.** After the initial 24-hour period, the STM (or SM or ASM), the local EC, the DEC and the Net Manager of any local NTS Net will jointly decide whether the moratorium should be continued.

This situation will be reviewed at 12-hour intervals until the circumstances allow lifting of the moratorium. Only the Section Traffic Manager, Section Manager or Assistant Section Manager may officially lift the moratorium and they will do so by advising each section Net Manager by radio or telephone.

- III.** Any incoming H&W traffic which cannot be delivered within 24 hours of its acceptance in Ohio should be serviced back to the originating station.
-

**OHIO SECTION**  
**(Attachment I-4 - May 17, 1994)**  
**Health and Welfare Traffic Policy:**

**OUTGOING**

- I. Following a disaster which interrupts normal commercial communications, it is the policy of the Ohio Section that an outgoing Health and Welfare (H&W) message service for the individuals in the disaster area is a vital function which should be established as soon as possible.
  - A. The local Emergency Coordinator (EC) or his assignee, in consultation with the DEC, the STM (or the SM or ASM) and local traffic handlers, should act to assign resources to allow the establishment of station(s) to originate outgoing H&W traffic for individuals in the disaster area. This service should normally be offered at temporary shelter(s) established to house or aid the survivors.
  - B. In the event that the local EC does not have the resources to allow the establishment of this service, the DEC or secretary will assemble the necessary resources from other counties and will make them available to the local EC or his assignee for deployment.
  - C. The outgoing H&W message service(s) will continue in operation until normal communications are re-established, or until the local EC determines that there is no further need for the service, and he has so notified the DEC, Secretary and STM.
  
- II. Outgoing H&W messages should be originated so as to speed their transmission throughout the traffic system. The following guidelines are recommended:
  - A. Texts should be limited to no more than 10 words
  - B. Texts should be standardized as much as possible to allow their transmission in books
  - C. Standardized ARL message texts should be used. Form FSD-244 should be used for originations, if possible
  - D. Messages which request a reply should NOT BE ACCEPTED

# The Ohio Amateur Radio Emergency Service

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Madison  
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Last Update 06/25/2000

## Brown County Ohio ARES Contact Sheet

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717 E State St,  
Georgetown, OH

**Brown County Sheriff**  
(937) 378-4155  
755 Mount Orab Pike,  
Georgetown, OH

**Georgetown Police Department**  
(937) 378-6400  
108 State Street,  
Georgetown, OH

**Russellville Police Department**  
(937) 377-5595  
126 W South Street,  
Russellville, OH

**Augusta Police Department**  
(606) 756-3296  
219 Main St,  
Augusta, KY

**Sardinia Village Police Department**  
(937) 446-2640  
Sardinia, OH

**Felicity Police Department**  
(513) 876-2621  
415 W Walnut St,  
Felicity, OH

**Mt Orab Police Department**  
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100 S High St,  
Mt Orab, OH

**Bethel Village Police Department**  
(513) 734-2256  
120 N Main Street,  
Bethel, OH

**Winchester Police Department**  
(937) 695-5502  
24 W Washington St,  
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**Mowrystown Police Department**  
(937) 442-3815  
50 Maple,  
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**Williamsburg Village Police**  
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120 S Front St,  
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**Bracken County Sheriff Office**  
(606) 735-3233  
Locust St,  
Brooksville, KY

**Aberdeen Police Department**  
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99 Main Cross Street,  
Aberdeen, OH

**Mason County Sheriff**  
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25 W 3rd St,  
Maysville, KY

**Maysville Police Department**  
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201 E 3rd Street,  
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79 Elizabeth,  
Moscow, OH

**Brooksville Police Department**  
(606) 735-3553  
107 W Miami St,  
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**Clermont County Sheriff's Department**  
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4470 State Route 222,  
Batavia, OH

**Monroe Township Police Chief**  
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2828 State Rte 222,  
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**Clermont County Highway Patrol**  
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1000 Hospital Dr,  
Batavia, OH

**Adams County Sheriff**  
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110 W Main Street,  
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**Brown County Hospital**  
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Georgetown, Ohio 45121  
(937) 378-6121 Main Telephone  
1(800) 866-0657

Every formal radiogram message originated and handled should contain the following component parts in the order given

## I. Preamble

- A. Number (begin with 1 each month or year)
- B. Precedence (R, W, P or EMERGENCY)
- C. Handling Instructions (optional, see text)
- D. Station of Origin (first amateur handler)
- E. Check (number of words/groups in text only)
- F. Place of Origin (not necessarily location of station of origin.)
- G. Time Filed (optional with originating station)
- H. Date (must agree with date of time filed)

## II. Address

(as complete as possible, include zip code and telephone number)

## III. Text

(limit to 25 words or less, if possible)

## IV. Signature

**CW:** The prosign

separates the parts of the address.  
separates the address from the text and the text from the signature.

marks end of message; this is followed by B if there is another message to follow, by N if this is the only or last message. It is customary to copy the preamble, parts of the address, text and signature on separate lines.

**RTTY:** Same as CW procedure above, except

- (1) use extra space between parts of address, instead of;
- (2) omit cw procedure sign to separate text from address and signature, using line spaces instead;
- (3) add a CFM line under the signature, consisting of all names, numerals and unusual works in the message in the order transmitted.

### **PACKET/AMTOR BBS:**

Same format as shown in the cw message example above, except that the “and” prosigns may be omitted. Most amtor and packet BBS software in use today allows formal message traffic to be sent with the “ST” command. Always avoid the use of spectrum-wasting multiple line feeds and indentations.

**PHONE:** Use *prowords* instead of prosigns, but it is not necessary to name each part of the message as you send it. For example, the above message would be sent on phone as follows: “Number one routine HX Golf WIAW eight Newington Connecticut one eight three zero zulu july one Donald Smith Figures one six four East Sixth Avenue North River City Missouri zero zero seven eight nine Telephone seven three three four nine six eight Break Happy birthday X-ray see you soon X-ray love Break Diana End of Message Over. “End of Message” is followed by “More” if there is another message to follow, “No More” if it is the only or last message. Speak clearly using VOX (or pause frequently on push-to-talk) so that the receiving station can get fills. Spell phonetically all difficult or unusual words—do not spell out common words. Do not use cw abbreviations or Q-signals in phone traffic handling.

## Precedences

The precedence will follow the message number. For example, on cw 207R or 207 EMERGENCY. On phone, “Two Zero Seven, Routine (or Emergency).”

**EMERGENCY**—Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or

instructions vital to relief of stricken populace in emergency areas. During normal times, it will be *very rare*. On cw, RTTY and other digital modes this designation will always be spelled out. When in doubt, *do not* use it.

**PRIORITY**—Important messages having a specific time limit. Official messages not covered in the Emergency category. Press dispatches and other emergency-related traffic not of the utmost urgency. Notifications of death or injury in a disaster area, personal or official. Use the abbreviation P on cw.

**WELFARE**—A message that is either a) an inquiry as to the health and welfare of an individual in the disaster area b) an advisory or reply from the disaster area that indicates all is well should carry this precedence, which is abbreviated W on cw. These messages are handled *after* Emergency and Priority traffic but before Routine.

**ROUTINE**—Most traffic normal times will bear this designation. In disaster situations, traffic labeled Routine (R on cw) should be handled *last*, or not at all when circuits are busy with Emergency, Priority or Welfare traffic.

### **Handling Instructions (Optional)**

**HXA**—(Followed by number) Collect landline delivery authorized by addressee within....miles. (If no number, authorization is unlimited.)

**HXB**—(Followed by number) Cancel message if not delivered within....hours of filing time; service originating station.

**HXC**—Report date and time of delivery (TOD) to originating station.

**HXD**—Report to originating station the identity of station from which received, plus date and time. Report identity of station to which relayed, plus date and time, or if delivered report date, time and method of delivery.

**HXE**—Delivering station get reply from addresses, originate message back.

**HXF**—(Followed by number) Hold delivery until...(date).

**HXG**—Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and service originating station.

For further information on traffic handling, consult the Public Service Communications Manual or the ARRL Operating Manual, both published by ARRL.

## ARRL QN Signals For CW Net Use

- QNA\*** Answer in prearranged order.
- QNB\*** Act as relay Between \_\_\_\_\_ and \_\_\_\_\_
- QNC** All net stations Copy. I have a message for all net stations.
- QND\*** Net is Directed (controlled by net control station).
- QNE\*** Entire net stand by.
- QNF** Net is Free (not controlled).
- QNG** Take over as net control station.
- QNH** Your net frequency is High.
- QNI** Net stations report In.\*  
I am reporting into the net. (Follow with a list or traffic or QRU).
- QNJ** Can you copy me?  
Can you copy \_\_\_\_\_?
- QNK\*** Transmit message for \_\_\_\_\_ to \_\_\_\_\_
- QNL** Your net frequency is Low.
- QNM\*** You are QRming the net. Stand by.
- QNN** Net control station is \_\_\_\_\_  
What station has net control?
- QNO** Station is leaving the net.
- QNP** Unable to copy you. Unable to copy \_\_\_\_\_
- QNQ\*** Move frequency to \_\_\_\_\_ and wait for \_\_\_\_\_ to finish handling traffic. Then send him traffic for \_\_\_\_\_
- QNR** Answer \_\_\_\_\_ and Receive traffic.
- QNS\*** Following Stations are in the net. \*(Follow with list.)  
Request list of stations in the net.
- QNT** I request permission to leave the net for \_\_\_\_\_ minutes.
- QNU\*** The net has traffic for you. Stand by.
- QNV\*** Establish contact with \_\_\_\_\_ on this frequency. If successful, move to \_\_\_\_\_ and send him traffic for \_\_\_\_\_
- QNW** How do I route messages for \_\_\_\_\_?
- QNX** You are excused from the net.\* Request to be excused from the net.
- QNY\*** Shift to another frequency (or to \_\_\_\_\_ kHz) to clear traffic with \_\_\_\_\_
- QNZ** Zero beat your signal with mine.
- \* For use only by the Net Control Station.

### Notes on Use of QN Signals

The QN signals listed above are special ARRL signals for use in amateur cw nets only. They are not for use in casual amateur conversation. Other meanings that may be used in other services do not apply. Do not use QN signals on phone nets. Say it with words. QN signals need not be followed by a question mark, even though the meaning may be interrogatory.

## International Q Signals

A Q signal followed by a ? asks a question. A Q signal without the ? answers the question affirmatively, unless otherwise indicated.

- QRA** What is the name of your station?
- QRG** What's my exact frequency?
- QRH** Does my frequency vary?
- QRI** How is my tone? (1-3)
- QRK** What is my signal intelligibility? (1-5)
- QRL** Are you busy?
- QRM** Is my transmission being interfered with?
- QRN** Are you troubled by static?
- QRO** Shall I increase transmitter power?
- QRP** Shall I decrease transmitter power?
- QRQ** Shall I send faster?
- QRS** Shall I send slower?
- QRT** Shall I stop sending?
- QRU** Have you anything for me? (Answer in negative)
- QRV** Are you ready?
- QRW** Shall I tell \_\_\_\_\_ you're calling him?
- QRX** When will you call again?
- QRZ** Who is calling me?
- QSA** What is my signal strength? (1-5)
- QSB** Are my signals fading?
- QSD** Is my keying defective?
- QSG** Shall I send \_\_\_\_\_ messages at a time?
- QSK** Can you work breakin?
- QSL** Can you acknowledge receipt?
- QSM** Shall I repeat the last message sent?
- QSO** Can you communicate with \_\_\_\_\_ direct?
- QSP** Will you relay to \_\_\_\_\_?
- QSV** Shall I send a series of V's?
- QSW** Will you transmit on \_\_\_\_\_?
- QSX** Will you listen for \_\_\_\_\_ on \_\_\_\_\_?
- QSY** Shall I change frequency?
- QSZ** Shall I send each word/group more than once? (Answer, send twice or \_\_\_\_\_)
- QTA** Shall I cancel number \_\_\_\_\_?
- QTB** Do you agree with my word count? (Answer negative)
- QTC** How many messages have you to send?
- QTH** What is your location?
- QTR** What is your time?
- QTV** Shall I stand guard for you \_\_\_\_\_?
- QTX** Will you keep your station open for further communication with me?
- QUA** Have you news of \_\_\_\_\_?

## Abbreviations, Prosigns, Prowords

<b>CW</b>	<b>PHONE (meaning or purpose)</b> (Separation between parts of address or signature.)
<b>AA</b>	All after (used to get fills).
<b>AB</b>	An before (used to get fills).
<b>ADEE</b>	Addressee (name of person to whom message addressed).
<b>ADR</b>	Address (second part of message).
<b>AR</b>	End of message (end of record copy).
<b>ARL</b>	(Used with "check," indicates use of ARRL numbered message in text). Stand by; wait.
<b>B</b>	More (another message to follow).
<b>BK</b>	Break; break me; break-in (interrupt transmission on cw. Quick check on phone). Separation (break) between address and text; between text and signature.
<b>C</b>	Correct; yes.
<b>CFM</b>	Confirm. (Check me on this).
<b>CK</b>	Check.
<b>DE</b>	From; this is (preceding identification). (Error in sending. Transmission continues with last word correctly sent.)
<b>HX</b>	(Handling instructions. Optional part of preamble.) Initial(s). Single letter(s) to follow. Repeat; I say again. (Difficult or unusual words or groups.)
<b>K</b>	Go ahead; over; reply expected. (Invitation to transmit.)
<b>N</b>	Negative, incorrect; no more. (No more messages to follow.)
<b>NR</b>	Number. (Message follows.)
<b>PBL</b>	Preamble (first part of message)
<b>N/A</b>	Read back. (Repeat as received.)
<b>R</b>	Roger; point. (Received; decimal point.)
<b>SIG</b>	Signed; signature (last part of message). Out; clear (end of communications, no reply expected.)
<b>TU</b>	Thank you.
<b>WA</b>	Word after (used to get fills.)
<b>WB</b>	Word before (used to get fills.)
<b>N/A</b>	Speak slower.
<b>N/A</b>	Speak faster.

## FSD-3

The letters ARL are inserted in the preamble in the check and in the text before spelled out numbers, which represent texts from this list. Note that some ARL texts include insertion of numerals .Example: NR 1 R W1AW ARL 5 NEWINGTON CONN. DEC 25 DONALD R. SMITH

164 EAST SIXTH AVE

NORTH RIVER CITY MO

PHONE 73-3968

ARL FIFTY ARL SIXTY ONE BT DIANA

For additional information about traffic handling, consult The ARRL Operating Manual, published by ARRL.

**Group One—** **For Possible “Relief Emergency” Use**

ONE	Everyone safe here. Please don't worry.
TWO	Coming home as soon as possible.
THREE	Am in ____ hospital. Receiving excellent care and recovering fine.
FOUR	Only slight property damage here. Do not be concerned about disaster reports.
FIVE	Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated .
SIX	Will contact you as soon as possible.
SEVEN	Please reply by Amateur Radio through the amateur delivering this message. This is a free public service.
EIGHT	Need additional ____ mobile or portable equipment for immediate emergency use.
NINE	Additional ____ radio operators needed to assist with emergency at this location.
TEN	Please contact _____. Advise to standby and provide further emergency information, instructions or assistance.
ELEVEN	Establish Amateur Radio emergency communications with ____ on ____ MHz.
TWELVE	Anxious to hear from you. No word in some time. Please contact me as soon as possible.
THIRTEEN	Medical emergency situation exits here.
FOURTEEN	Situation here becoming critical. Losses and damage from ____ increasing.
FIFTEEN	Please advise your condition and what help is needed.
SIXTEEN	Property damage very severe in this area.
SEVENTEEN	REACT communications services also available. Establish REACT communication with ____ on channel ____.
EIGHTEEN	Please contact me as soon as possible at _____.
NINETEEN	Request health and welfare report on _____. (State name, address and telephone number.)
TWENTY	Temporarily stranded. Will need some assistance. Please contact me at _____.
TWENTY ONE	Search and Rescue assistance is needed by local authorities here. Advise availability.
TWENTY TWO	Need accurate information on the extent and type of conditions now existing at your location. Please furnish this information and reply without delay.
TWENTY THREE	Report at once the accessibility and best way to reach your location.
TWENTY FOUR	Evacuation of residents from this area urgently needed. Advise plans for help.
TWENTY FIVE	Furnish as soon as possible the weather conditions at your location.
TWENTY SIX	Help and care for evacuation of sick and injured from this location needed at once.

Emergency/priority messages originating from official sources must carry the signature of the originating official.

**Group Two— Routine Messages**

FORTY SIX	Greetings on your birthday and best wishes for many more to come.
FIFTY	Greetings by Amateur Radio.
FIFTY ONE	Greetings by Amateur Radio. This message is sent as a free public service by ham radio operators at _____. Am having a wonderful time.
FIFTY TWO	Really enjoyed being with you. Looking forward to getting together again.
FIFTY THREE	Received your _____. It's appreciated; many thanks.
FIFTY FOUR	Many thanks for your good wishes.
FIFTY FIVE	Good news is always welcome. Very delighted to hear about yours.
FIFTY SIX	Congratulations on your _____, a most worthy and deserved achievement.
FIFTY SEVEN	Wish we could be together.
FIFTY EIGHT	Have a wonderful time. Let us know when you return.
FIFTY NINE	Congratulations on the new arrival. Hope mother and child are well.
*SIXTY	Wishing you the best of everything on _____.
SIXTY ONE	Wishing you a very Merry Christmas and a Happy New Year.
*SIXTY TWO	Greetings and best wishes to you for a pleasant _____ holiday season.
SIXTY THREE	Victory or defeat, our best wishes are with you. Hope you win.
SIXTY FOUR	Arrived safely at _____.
SIXTY FIVE	Arriving _____ on _____. Please arrange to meet me there.
SIXTY SIX	DX QSLs are on hand for you at the _____ QSL Bureau. Send _____ self addressed envelopes.
SIXTY SEVEN	Your message number _____ undeliverable because of _____. Please advise.
SIXTY EIGHT	Sorry to hear you are ill. Best wishes for a speedy recovery.
SIXTY NINE	Welcome to the _____. We are glad to have you with us and hope you will enjoy the fun and fellowship of the organization.

\* Can be used for all holidays.

**ARRL Recommended Precedences**

Please observe the following ARRL provisions for PRECEDENCES in connection with written message traffic. These provisions are designed to increase the efficiency of our service both in normal times and in emergency.

**EMERGENCY**—Any message having life and death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be *very* rare. On CW/RTTY, this designation will *always* be spelled out. When in doubt, do not use it.

**PRIORITY**—Use abbreviation P on CW/RTTY. This classification is for a) important messages having a specific time limit b) official messages not covered in the emergency category c) press dispatches and emergency-related traffic not of the *utmost* urgency d) notice of death or injury in a disaster area, personal or official.

**WELFARE**—This classification, abbreviated as W on CW/RTTY, refers to either an inquiry as to the health and welfare of an individual in the disaster area or an advisory from the disaster area that indicates all is well. Welfare traffic is handled only after all emergency and priority traffic is cleared. The Red Cross equivalent to an incoming Welfare message is DWI (Disaster Welfare Inquiry).

**ROUTINE**—Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine (R on CW/RTTY) should be handled last, or not at all when circuits are busy with higher precedence traffic.

Note—the precedence always follows the message number. For example, a message number may be 207R on CW and “Two Zero Seven Routine” on phone.

## ARRL Communications Procedures

Voice	Code	Situation
Go ahead	K	Used after calling CQ, or at the end of a transmission, to indicate any station is invited to transmit.
Over	AR	Used after a call to a specific station, before the contact has been established
	KN	Used at the end of any transmission when only the specific station contacted is invited to answer.
Stand by or wait	AS	A temporary interruption of the contact.
Roger	R	Indicates a transmission has been received correctly and in full.
Clear	SK	End of contact. SK is sent before the final identification.
Leaving the air or closing the station	CL	Indicates that a station is going off the air, and will not listen or answer any further calls. CL is sent after the final identification.

## ITU Phonetic Alphabet

Word list adopted by the International Telecommunications Union

<b>A</b>	Alfa
<b>B</b>	Bravo
<b>C</b>	Charlie
<b>D</b>	Delta
<b>E</b>	Echo
<b>F</b>	Foxtrot
<b>G</b>	Golf
<b>H</b>	Hotel
<b>I</b>	India
<b>J</b>	Juliatt
<b>K</b>	Kilo
<b>L</b>	Lima
<b>M</b>	Mike
<b>N</b>	November
<b>O</b>	Oscar
<b>P</b>	Papa
<b>Q</b>	Quebec
<b>R</b>	Romeo
<b>S</b>	Sierra
<b>T</b>	Tango
<b>U</b>	Uniform
<b>V</b>	Victor
<b>W</b>	Wiskey
<b>X</b>	X-ray
<b>Y</b>	Yankee
<b>Z</b>	Zulu

## The R-S-T System

### Readability

- 1 Unreadable
- 2 Barely readable, occasional words distinguishable.
- 3 Readable with considerable difficulty.
- 4 Readable with practically no difficulty.
- 5 Perfectly readable.

### Signal Strength

- 1 Faint signals, barely perceptible.
- 2 Very weak signals.
- 3 Weak signals.
- 4 Fair signals.
- 5 Fairly good signals.
- 6 Good signals.
- 7 Moderately strong signals.
- 8 Strong signals.
- 9 Extremely strong signals.

### Tone

- 1 Sixty cycle a.c or less, very rough and broad.
- 2 Very rough a.c., very harsh and broad.
- 3 Rough a.c. tone, rectified but not filtered.
- 4 Rough note, some trace of filtering.
- 5 Filtered rectified a.c. but strongly ripple-modulated.
- 6 Filtered tone, definite trace of ripple modulation.
- 7 Near pure tone, trace of ripple modulation.
- 8 Near perfect tone, slight trace of modulation.
- 9 Perfect tone, no trace of ripple or modulation of any kind.

If the signal has the characteristic steadiness of crystal control, add the letter X to the RST report. If there is a chirp, the letter C may be added to so indicate. Similarly for a click, add K. The above reporting system is used on both cw and voice, leaving out the "tone" report on voice. See previous pages examples.

## Time Conversion Chart

UTC	EDT/AST	CDT/EST	MDT/CST	PDT/MST	PST
0000*	2000	1900	1800	1700	1600
0100	2100	2000	1900	1800	1700
0200	2200	2100	2000	1900	1800
0300	2300	2200	2100	2000	1900
0400	0000*	2300	2200	2100	2000
0500	0100	0000*	2300	2200	2100
0600	0200	0100	0000*	2300	2200
0700	0300	0200	0100	0000*	2300
0800	0400	0300	0200	0100	0000*
0900	0500	0400	0300	0200	0100
1000	0600	0500	0400	0300	0200
1100	0700	0600	0500	0400	0300
1200	0800	0700	0600	0500	0400
1300	0900	0800	0700	0600	0500
1400	1000	0900	0800	0700	0600
1500	1100	1000	0900	0800	0700
1600	1200	1100	1000	0900	0800
1700	1300	1200	1100	1000	0900
1800	1400	1300	1200	1100	1000
1900	1500	1400	1300	1200	1100
2000	1600	1500	1400	1300	1200
2100	1700	1600	1500	1400	1300
2200	1800	1700	1600	1500	1400
2300	1900	1800	1700	1600	1500
2400*	2000	1900	1800	1700	1600

Universal Coordinated Time (UTC) is the time at the zero or reference meridian. Time changes one hour with each change of 15 degrees in longitude. The five time zones in the US proper and Canada roughly follow these lines.

\* 0000 and 2400 are interchangeable. (2400 is associated with the date of the day ending, 0000 with the day just starting.)



## THE AMATEUR RADIO EMERGENCY SERVICE

The radio amateur best justifies his existence by the service rendered to the community in times of disaster and distress when normal communications media are not available, have failed or are badly overburdened.

In the event of a communications emergency all amateurs are dedicated to serve in the public interest, within their ability, to provide temporary communications for a stricken area until normal facilities are restored.

The ARRL Amateur Radio Emergency Service is composed of licensed amateurs who have voluntarily registered their qualifications and equipment for communication duty in the public service when disaster strikes.

Every licensed amateur, whether or not a member of the ARRL, is eligible for membership in the Emergency Service. The only other qualification is a sincere desire to serve. The possession of emergency-powered equipment is desirable, but is not a requirement.

Further information on the Service may be obtained from your Section Manager or ARRL Hq.

### BEFORE EMERGENCY

**Prepare** yourself by providing a transmitter-receiver setup together with an emergency power source upon which you can depend.

**Test** both the dependability of your emergency equipment and your own operating ability in the annual ARRL Simulated Emergency Test and the several annual on-the-air contests, especially Field Day.

**Register** your facilities and your availability with your local ARRL Emergency Coordinator. If your community has no EC, contact your local civic and relief agencies and explain to them what the Amateur Service offers the community in time of disaster.

### IN EMERGENCY

**Listen** before you transmit. Never violate this principle.

**Report** at once to your Emergency Coordinator so that the EC will have up-to-minute data on the facilities available. Work with the local civic and relief agencies as the EC suggests. Offer these agencies your services directly in the absence of an EC.

**Restrict** all on-the-air work in accordance with FCC regulations, Section 97.107, whenever FCC "declares" a state of communications emergency.

**SOS** and "Mayday" are the International distress calls for emergency only. They are for use only by stations seeking emergency assistance.

**Respect** the fact that the success of the amateur effort in emergency depends largely on circuit discipline. The established Net Control Station should be the supreme authority for traffic routing.

**Cooperate** with those we serve. Be ready to help, but stay off the air unless there is a specific job to be done, that you can handle more efficiently than any other station.

**Copy** all bulletins from W1AW. During time of emergency, bulletins will keep you posted on the latest developments.

### AFTER EMERGENCY

**Report to ARRL** Headquarters as soon as possible and as fully as possible so that the Amateur Service can receive full credit. Amateur Radio has won glowing public tribute in emergencies for over sixty years. Maintain this record.



# Brown County EC Handbook

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Mail to:

