

**KARS Emergency Communications Plan**  
**18Dec2014 draft for club member review**

**SECTION 1**

**INTRODUCTION** - KARS may be requested to assist local fire department(s), law enforcement agencies, or may need to assist in official ARES activities. KARS volunteers are expected to operate within FCC regulations and in accordance with applicable ARES guidelines, policies, and procedures. Section 2 provides information for what to do first during and emergency. Specific Communications Protocols are addressed in Section 3. Instructions for Tactical Calls are presented in Section 4 of this document. Pro-words and phonetics are addressed in Section 5. Section 6 contains official ARRL National Traffic System message formats. Sections 7 and 8 include call out lists format and local frequency assignments.

1. **PURPOSE**- The intent of this plan is for the Katy Amateur Radio Society (KARS) to provide effective emergency radio communications as needed by the West I-10 Fire Department in the event of a natural disaster or emergency involving any major threat to life or property, to supplement normal and emergency communications, or in the event of normal West I-10 FD communication system failures.

**2. ACTIVATING THIS PLAN**

This KARS Emergency Communication Plan can only be activated by the KARS Emergency Communication Coordinator or his specific designee. The normal procedure for activation is in response to an official request from the West I-10 FD to the designated KARS representative to respond to a specific emergency need. There may be other circumstances, where KARS may activate this plan on a stand-by or practice drill basis.

Any member of the KARS who for any reason believes that a communications emergency exists, or is imminent, should monitor the KARS repeater, 147.200 MHz (+) PL 141.3 Hz. This repeater should be monitored for bulletins, announcements and other pertinent information relative to an event, or drill. The KARS phone tree and email notification systems will also be employed to activate a formal KARS emergency response.

**3. MOBILIZATION**

Initial notification and mobilization of this KARS Emergency Communication Plan is to be accomplished by activating a KARS Tactical Emergency Net. This net is to be activated by the KARS Emergency Director or his specific designee.

3.1 If telephone and internet service is available, KARS may also initially notify members using the telephone tree and the email alert system.

3.2 When notification, or knowledge, that a communications emergency exists, members of KARS should check into the KARS Tactical Emergency Net and remain on frequency for instructions.

3.3 The net control station will list all stations on frequency, and identify the simplex relay stations in the event that simplex operation is required. The national simplex calling frequency is 146.52 and should **not** be used as a NET frequency.

3.4 Anticipate that confusion inevitably occurs during the early stages of an emergency. Be courteous. Follow the orders of the person in charge, or the official with whom you are in contact. Call the KARS net control Leader and standby for further instructions. Be courteous and maintain a positive attitude. Always think in terms of “*how can I make this work to the best advantage of the mission*”.

#### 4. OPERATIONS

4.1 **Written Messages** - All written emergency net messages should be in standard ARRL format using ARRL transmission and receipt protocol and message forms. All messages must include the identity of the person originating the message.

When drafting a formal message the criteria must be more than, “can this message be understood”. The final check and criteria must be not only be can this message be understood, it **must also be scrutinized from the perspective of, “can this message be misunderstood?”**

Never change the text of a message without written permission of the person who drafted the message. If the message does not look correct and the authorizing person directs you to send the message, even after you have pointed out a possible error, then send the message exactly as the originator wrote it. Always ensure that originators of message traffic to be sent over Amateur Radio circuits understand that Amateur Radio is NOT a secure mode of transmission.

**Message Precedence** - Appropriate message precedence of *Emergency, Priority, Welfare, or Routine*, as defined on ARRL are to be used at all times. Remember the message precedent **Emergency** is always written out. The Emergency Precedence is never abbreviated on the message form. The first initial of the precedence, as in “P”, W and R abbreviations are used for Priority, Welfare and Routine, respectively.

#### 4.2 Net Operating Practices –

Remember the KARS Tactical Emergency Net will be operating as a controlled net. As such, stations should not transmit unless directed to do so by the net control station. Stations with pertinent information for the net such as updates on situational information should break the net with the pro-words “re-check”, “info”, “relay”, or their call sign as appropriate.

It is appropriate for a station with emergency traffic, or emergency information, to break the net at anytime by transmitting the breaking station’s call sign with the words emergency traffic. Alternatively, a station may transmit the pro-word “break” two times in succession, as in “Break Break” which means that the transmitting station has an emergency. Use of the station’s call sign with the word Emergency is preferred. Refrain from using the word “break” unless you have an emergency.

When it is necessary to break in to a controlled net, use your call sign. A call sign identification will facilitate more expeditious communications. The net control operator will know who is calling.

It is inappropriate and incorrect procedure on the net to use non-standard phonetics, or to transmit only the words “net control” when attempting to be recognized by the net control station.

## 5. TRAINING and PREPAREDNESS

- 5.1 All KARS members who volunteer to be a part of this emergency communication response, are expected to be familiar with applicable ARRL and ARES terms and emergency communication requirements, including Incident Command System concepts and terms and applicable FEMA protocols.
- 5.2. All participating KARS members are required to receive initial training on this procedure and yearly refresher update training.
- 5.3 All participating KARS members are required to receive an initial orientation to the KARS radio station, equipment, applicable equipment procedures, and refresher update training when equipment or procedures are changed.
5. 4 At least once each year, a formal mobilization/activation practice drill exercise is to be conducted, and critiqued. These drills are to be conducted by the KARS Emergency Director or his designee. Action items for improvement should be identified, documented and resolved.
- 5.5 A roster of qualified KARS members who volunteer to participate in this plan, is to be maintained by the KARS Emergency Director.
- 5.6 This emergency plan must be reviewed and revalidated every 24 months, with appropriate updates implemented as needed.
- 5.7 One official and up-to-date printed copy of this KARS Emergency Communication Plan document is to be maintained by the KARS Emergency Director.

## SECTION 2 WHAT TO DO FIRST IN CASE OF AN EMERGENCY

1. Before you respond as a KARS emergency communications volunteer for an event, ensure that you and your family are safe and secure. If you live in an area, which has been ordered to evacuate you should evacuate as instructed.
2. Ensure that your property is as safe and secure as you can reasonably make it before you respond.
3. Monitor 147.200 MHz, the KARS repeater, for instructions and direction.
4. Think safety, act safely and be safe. There will likely be temporary and unusual hazards such as live power lines, broken gas lines, unstable structures, sharp edges. Traffic lights may be non-functional.
5. Before deploying ensure that you have all of your equipment with you. Do not assume someone else will provide batteries, flashlight, water, handi-talkies, and bug spray.

### INITIAL ACTION CHECK-LIST

1. Check all equipment and connections.
2. Check-in with your assigned contact. Deploy to the location designated to you.
3. Obtain tactical call sign for your location/assignment, if applicable.
4. Initiate Incident Log Sheet and other appropriate ICS forms.
5. Enter assigned frequency(s) on log sheet and on emergency/frequency plan.
6. Use log form to record messages handled.
7. When a precise record is required and for all third party traffic, use a formal message form, either ARRL<sup>®</sup> NTS message form FSD-3 or ICS 213 as appropriate.
8. Use tactical call sign for your location, while observing FCC's ten-minute ID rule.
9. Monitor your assigned frequency **AT ALL TIMES**. Notify Net Control Station if you have to leave and notify the NCS operator when you return.
10. Follow net procedures. See the Communication Procedures in Section 3.

## SECTION 3 COMMUNICATION PROCEDURES

### CALLING AND COMMUNICATING TECHNIQUES

The secret to working quickly and efficiently in an emergency net is to use standard procedures. The techniques presented herein are the most common. It doesn't take much analysis to see that standards and guidelines must be established and then utilized.

Before you key your mike, gather your thoughts about what you are going to say. Many Amateur Radio Operators have a tendency to talk and / or repeat too much. Say what you need to say without unnecessary repeats. Keep in mind that you must strive to get your message through the first time. Strive to be understood and not misunderstood. Think about what you are going to say. Be conscious of double meaning statements. If it can have a double meaning don't say it.

In general, there are five parts to Calling / Communications. The more serious or complex the situation, the more important these procedures become. The information printed herein **MUST** be practiced until it is second nature.

**FIRST**, on the initial call, and on subsequent calls if confusion will result, you **MUST** give the call sign, or tactical call sign, of the station you are calling. This alerts that station that they are being called and that they should listen to determine who is calling.

**SECOND**, say "THIS IS". The called station knows your call sign or tactical call follows. This is extremely important in cases where there are a lot of transmissions on the net and confusion could result.

**THIRD**, give your call sign or tactical call sign. Note tactical call, if assigned, and not Amateur Radio call signs. In drills and actual emergency situations, Tactical call signs are important and FCC issued call signs are not, egos notwithstanding. The FCC requires your call sign every ten minutes and at the end of an exchange.

**FOURTH**, transmit your message. Speak clearly. Don't speak too fast especially if the message needs to be written down. Pause after logical phrases. Do not use the word "break" when you pause. It is confusing, wastes time, and has another connotation in formal message handling. Instead of saying "Break", merely un-key and pause. If the other station has questions, they should key up and make their request known. This also permits other stations to break in if they have emergency traffic.

**FIFTH**, end your message with "OVER" or "OUT". "Q" signals should be used for CW, and other digital communications, and kept to an absolute minimum for voice communications. "OVER" means I'm done, it's your turn, "OUT" means I'm done and the conversation is completed.

### EXCEPTIONS and VARIATIONS

1. It is often permissible to omit the call designator of the station you are calling **BUT** only after communications have been established and no confusion will occur. Don't waste time by using superfluous call signs.
2. The term "THIS IS" is used to separate the FROM and TO call signs. If, and only if, confusion will not result, omitting the "THIS IS" phrase is permissible.
3. If you are the calling station and you omit your own tactical call sign, you may create confusion. In certain situations, such as quick replies between operators, dropping

the use of call signs can be accomplished without confusion. Knowing when this will work will come with experience. When addressing the Net Control Station don't key your mike and say "NET CONTROL" and then un-key. This procedure, although sometimes used is an incorrect procedure, wastes time and is at best confusing. When you want to be recognized by the NCS operator it is only necessary to transmit your call sign, or tactical call sign is assigned.

4. Elimination of the words "OVER" and "OUT" is possible where it doesn't introduce problems. Un-keying after your message implies "OVER". To comply with FCC regulations, you must give your FCC assigned Amateur Radio call sign every ten minutes and at the end the exchange, whichever comes first. Giving your call sign implies "OUT" ending the transmission. Should only giving your call sign cause any confusion, do not hesitate to add the word "OUT". In HF single-sideband radio, it is usually necessary to use the pro-words "OVER" and "OUT" (not at the same times as they do in Hollywood) in most instances.

## RADIO PROCEDURES DURING EMERGENCIES

1. Identify yourself at the beginning of each transmission especially where confusion may result if identification is omitted.
2. Identification is a requirement of the FCC. Stations must give complete station identification using the assigned FCC Amateur Radio call sign at least once in a 10-minute operating period, particularly when tactical calls are being used. Your FCC call sign must also be used at the end of every communications exchange, but not at the end of each transmission.
3. Listen before transmitting. Be sure you are not transmitting and causing a "double transmission" with someone else. Don't quick key. Allow sufficient time for another station to drop in their call sign.
4. Know what you are going to say before you push the mike button; in other words, engage your brain before you key the mike and before you put your mouth in gear.
5. Hold the transmit button down for at least a second before beginning your message to ensure that the first part of your message is not cut off.
6. TALK ACROSS THE FACE OF YOUR MICROPHONE. This technique makes the communications more understandable. In other words, hold the face of the microphone at about a 45-degree angle to your face. On most VHF and UHF nets it is not necessary to use phonetics when transmitting your call sign. FM is usually very clear, and most transmissions are easily understood. If the NCS is having trouble and asks for a repeat then use standard phonetics, otherwise DROP the phonetics.
7. Speak slowly, distinctly, clearly, and do not let your voice trail off at the end of words or sentences. Give each and every word equal force. For some this takes a lot of practice and conscious effort, but do it. THINK BEFORE YOU TRANSMIT!
8. Never acknowledge calls or instructions unless you understand the call or instructions perfectly. If you do not understand, ask for a repeat.
9. When you have understood the message, acknowledge receipt with the words "Roger copied", "Roger received", "Roger acknowledged" The words "Roger copied" are preferred and **NEVER the QSL signal "QSL"**.
10. The word "break" is seldom used UNLESS there is an emergency. When you require access to Net Control transmit your call sign or your tactical call sign, as appropriate. **DO NOT SAY, "NET CONTROL"** without identifying yourself. Use your call sign, or tactical call sign as appropriate. Remember that the word "Break" spoken twice, as in "Break, Break this is W5XYZ, means that W5XYZ has an emergency, or emergency

precedence traffic.

Always acknowledge calls and instructions. Nothing is more disruptive to the smooth flow of communications than dead silence in response to a message. If you cannot copy or respond to the call immediately, then tell the caller to "say again" or "stand by". Otherwise, acknowledge each call immediately.

11. Under stress, many operators have a tendency to talk too fast. **SPEED IS IMPORTANT ACCURACY IS PARAMOUNT.** Talking too fast does not increase efficiency.
12. At times, radio conditions are poor and words must be emphasized in order to be understood. In general, speak slowly and distinctly to carry through static and weak signals. In very difficult communications situations it is necessary to say words twice when making a transmission. If you are having difficulty understanding a transmitting station use the phrase, "Please Say Words Twice", if you believe that is necessary.
13. If you are relaying a message for another person, be sure you repeat the message exactly, word for word as it is given to you. Read it first before the originator leaves. If it makes no sense to you, get an explanation before you put it on the air. If necessary, refer the message back to the originator for clarifications.
14. When transmitting numbers (house numbers, street and telephone numbers, etc.), always transmit number sequences as a series of individual numbers. Never say numbers in combinations. For example the number 1959 should be transmitted as one nine five nine and not nineteen fifty-nine.
15. If a proper name needs to be transmitted, always spell it out using standard phonetic alphabet. Do not use cute or self-invented phonetics. There is no place for them in official and emergency communications, or on training nets. Do not use the phrase "common spelling". There is no common spelling as far as communications procedures are concerned.
16. **TRANSMIT FACTS.** If your message is a question, deduction, educated guess, or hearsay, identify it as such. Do not clutter up the air with nonessential information. Be careful what you say on the air. There are many ears listening. Many facts will be taken out of context, even when carefully identified. Leave your commentaries and other musings at home. Be positive, and never critical.
17. If you do not understand the entire message given to you, or if you missed a word out of the transmission reply with "Say again", or "say again the words after" or "say again the words between". Do not say, "Please repeat," because it sounds too much like the word "received" when conditions are poor.
18. Avoid angry comments, on the air at all costs. Do not editorialize or offer opinions. Obscene statements are not necessary and are out of place in all communications.
19. Keep it professional - Always keep in mind that our transmissions are being monitored by emergency management personnel, businesses and the general public. We must, therefore, strive to be professional with our communication.
20. Sound alert. Nothing destroys confidence as much as a bored or weary sounding radio operator. If you are tired, get a relief operator.
21. During an incident, communication suffers enough confusion without wisecracks and jokes. Amateur radio may be a hobby to enjoy, but when providing emergency communications, participating in training nets, or training drills you must remember that it is serious business and should be treated as such at all times. The reality is that someone's property or welfare may depend on you.
22. Stay off the air unless you are sure you can be of assistance. It does no good to offer advice, assistance, comments, or other input to a net unless you can truly provide clarification.

23. If you check into an emergency net, you must monitor on the net frequency. If you must leave the frequency, ask permission from the Net Control Station (NCS). Report to the NCS when you return to the net. It is vital that the NCS knows the availability of each station on the net and it is up to YOU to keep the NCS advised. However, if the NCS is very busy and you must leave the net, do so without interrupting the net.
24. Net Control Stations frequently are very busy with work that is not on the air. If you call the NCS and do not get an immediate reply, be patient and call again in a minute or two. If you have an emergency, say you have "Emergency traffic" after you identify yourself when you call the NCS. Be patient with the NCS and other stations. Be courteous and professional.
25. A mobile radio (that is one that is mobile, portable, or airborne) has priority over any other type of radio station and other forms of telecommunications. This is true in all radio services. Fixed station operators must recognize that a call from a mobile station takes precedence over telephone calls, personal conversations, and other activities. Respond promptly to any call from a mobile station—even if it is to advise the caller to standby.

## SECTION 4 TACTICAL CALLS – WHEN AND HOW TO USE THEM

Tactical calls are used to identify a location during an event regardless of who is operating. This is an important concept. The tactical call allows you to contact a location without knowing the FCC call of the operator at that location. It also virtually eliminates confusion at shift changes and when a person takes a break from operating. Think about that. Do you answer a call from the sound of a persons voice or from the identified location? Obviously the call is answered because it was initiated from an identified location, regardless of whose voice was being transmitted.

Tactical calls should be used for all training, emergency nets, and drills for emergencies, once there are more than three participants. Tactical calls should also be used for public service nets and events when there are more than three stations involved. **Remember the FCC ten-minute identification rule.** Just because you are involved in emergency communications and using tactical call signs does not remove the requirement to identify with your FCC issued amateur radio call sign at ten-minute intervals and at the conclusion of each exchange.

When checking into SkyWarn nets it is appropriate to use your FCC issued call sign. During an actual weather spotter activation and net activation the net control station will assign tactical calls if needed.

Net Control will assign the tactical call as each location is opened. It will normally be some unique identifier that indicates which location or function this is. Some examples are:

- NET – for the Tactical or Training Net Control Station.
- Resource NET – for the Resource Net Control Station.
- CHECK-POINT-1 – for the first check point in a public service event.
- CP – for the event command post.
- FIRE-BASE-1 – The first firebase established or the firebase in a particular region.
- SHELTER 5 – for Public Shelter #5 on the county's list of shelters.
- EMS – for the operator stationed with the EMS vehicle or
- AID-3 – The third aid station on a route, etc.

Specifically for SPECIAL EVENTS the following Tactical Calls can/will be used:

- NET CONTROL
- REST 1 – for Rest Stop 1
- REST 2 – for Rest Stop 2
- REST 3 – for Rest Stop 3
- Break Point 1 – for the first break point on bike route.
- TURNAROUND – for the Course Turnaround point.
- BICYCLE 1 – for a communicator using his Bicycle to traverse the course.
- FINISH – For the Start communicator who then becomes the Finish Line communicator
- MILE 1 – for communicators stationed in intermediate spots between the Rest Stops
- Memorial Katy – for Memorial Hermann Hospital Katy
- MILE 2 – for the operator at mile marker 2.
- MILE 3 – for the operator at mile marker 3
- SHADOW 1 – for an operator working with a emergency management person in an actual emergency, or a race official, or similar person, during a public service event.

Proper use of tactical calls can best be explained by example:

### INITIATING A CALL

If you were at aid station three during a directed net and wanted to contact Net Control you would say "NET this is AID3" or, in crisper nets, simply "AID3". If you had emergency traffic you would say "AID3, emergency traffic" or for priority traffic "AID3, priority traffic". Notice how you have conveyed all necessary information without using any unnecessary words or time. If you had traffic for another location, such as checkpoint five, you would say "AID3, traffic for CHECK POINT 5". This tells NCS everything needed to handle the traffic. NCS will then call checkpoint 5 with "CHECK POINT 5, call AID3 for traffic", if there is no other traffic holding. (Thus, there is no need to ask Net Control for permission to go direct with Check Point 5) Notice that there has been no FCC issued calls used. At this point none are necessary.

### TRAFFIC DURING A CALL

Tactical calls will normally not be used in the contact unless a separate location is mentioned in the message.

### COMPLETING A CALL

To complete the call from AID3, after the message/traffic is complete you would say "(your call), AID3". This fulfills your identification requirements and tells NCS that you believe the call to be complete.

If the Net Control Station believes the exchange to be complete, and the member station has not identified, then the NCS should say, (completing this example) "EMS, do you have further traffic?" At that point EMS should either finish with the traffic or identify and clear.

- 2 THE LEGAL STUFF: (Part 97) Legal requirements, within nets, are those of identification and operation on frequencies within the Amateur Radio Bands. The FCC regulations require station identification at ten-minute intervals during a conversation and at the end of the last transmission. During periods of heavy activity in event nets it is easy to forget when you last identified. **The easiest way to insure compliance with FCC identification requirements during an event or net is to identify with your FCC issued amateur radio call sign as you complete an exchange.**
  - This serves two functions:
  - Tells NCS you consider the exchange to be complete without having to use extra words (saves time).
  - Fulfills all FCC identification requirements.
- 3 DON'T OVER IDENTIFY
  1. There is normally nothing that will expend more time, needlessly, than over identification. Someone that uses their FCC issued call in every transmission is usually a person that is unsure of themselves or, worse yet, someone that is more interested in having their call known to everyone at the event. In the latter situation, help them find work elsewhere.
  2. The FCC tells us that you need only identify at ten-minute intervals during a conversation (NOT during a net unless you talk for more than ten minutes) and at the end your last transmission.
  3. If you end each EXCHANGE, not transmission, with your call, that tells everyone that you are of the opinion the exchange is complete and you have fulfilled all FCC requirements.

## SECTION 5

### Pro-words, The Phonetic Alphabet and Numbers

#### Pro-words

Voice	Morse Code	Meaning and function
Clear	SK	End of contact. In CW, SK is sent before final identification
Over	AR	Used to let a specific station know to respond
Go ahead	K	Used to indicate that any station may respond
Out	CL	Leaving the air, will not be listening
Stand by	AS	A temporary interruption of the contact
Roger	R	Indicates that a transmission has been received correctly and in full

#### ITU Phonetic Alphabet

A - alfa (AL-fa)	B – bravo (BRAH-vo)	C – Charlie (CHAR-lee)
D – delta (DELL-tah)	E – echo (ECK-oh)	F – foxtrot (FOKS-trot)
G – golf (GOLF)	H – hotel (HOH-tell)	I – India (IN-dee-ah)
J – Juliet (JU-lee-ett)	K – kilo (KEY-loh)	L – lima (LEE-mah)
M – mike (MIKE)	N – November (no-VEM-ber)	O – oscar (OSS-car)
P – papa (PAH-PAH)	Q – quebec (kay-BECK)	R – romeo (ROW-me-oh)
S - -sierra (SEE-air-rah)	T – tango (TANG-go)	U – uniform (YOU-ni-form)
V – victor (VIK-tor)	W – whiskey (WISS-key)	X – x-ray (ECKS-ray)
Y – yankee (YANG-key)	Z – zulu (ZOO-loo)	

#### Numbers

One: "Wun"	Two: "TOOO"	Three "THUH-ree"
Four: "FOH-wer"	Five: "FY-ive"	Six: Sicks"
Seven: "SEV-vin"	Eight: "Ate"	Nine: "NINE-er"
Zero: "ZEE-row"		DECIMAL: "day-SEE-mal"

# SECTION 6



## The American Radio Relay League RADIOGRAM Via Amateur Radio

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date

To:

This Radio Message was received at: Amateur Station _____ Date _____ Name _____ Street Address _____ City, State, Zip _____
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Telephone Number:


REC'D	From	Date	Time	SENT	To	Date	Time

A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of QST Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.



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## ARRL NTS Message Format Guide

I. PREAMBLE - The preamble is the “header” information on the Radiogram including the message number, precedence, handling instructions (HX), station of origin, the check, the place of origin, the time filed and the date filed.

A. Number - A serial number that the **originator** assigns to his traffic. Start with (1) and you will be able to easily keep track of the traffic you have originated during the emergency. Relaying stations do not change this number!

B. Precedence - There are four precedences, Emergency, Priority, Welfare and Routine.

1. 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. When in doubt do not use Emergency precedences.

2. Priority - Important messages having a specific time limitation. Priority precedence can be used for official messages not covered in the Emergency category, press dispatches and other emergency-related traffic not of the utmost urgency and notification of death or injury in a disaster area, personal or official.

3. Welfare - A message that is either an inquiry about the health and welfare of an individual in the disaster area or an advisory or reply from the disaster area.

4. Routine - Most traffic in normal situations will bear this precedence. In disaster situations, traffic labeled as Routine should be handled last or not at all when circuits are busy with higher priority traffic.

C. Handling Instructions - Handling instructions are optional but if used are always stated as “HX Golf” or HX Alpha”.

1. HXA - (Followed by a number). Means collect telephone call delivery is authorized within (the number given) miles. If no number is given then the mileage authorization is unlimited.

2. HXB - (Followed by a number). Means the message should be canceled if not delivered within (the number given) hours of the filing time.

3. HXC - Send a message back to the originating station reporting date and time of delivery.

4. HXD - Send a message back to the originating station reporting the identity of the station from which received and the time, date and method of delivery.

5. HXE - The delivering station is should obtain a reply and originate a message back.

6. HXF - (Followed by a date). Means hold delivery until the date given.

7. HXG - Indicates that delivery by mail or toll call is not required. If toll or postage expense is required for delivery, cancel the message and advise the originating party by originating a reply.

D. Station of Origin - This is the **first** Amateur handler, not the relayer.

E. Check Number - number of words/groups in the text only.

F. Place of Origin - This is the location of the the signator when the message was originated.

G. Time Filed - This is optional with the originating station however it is important if the traffic precedence is not routine.

H. Date

II. ADDRESS - The address should be as complete as possible including a zip code and telephone number.

III. Text

A. Limit to 25 words or less if possible.

B. Break phrases with an "X", spoken as X-ray and counting as one word in the check.

C. The ARRL numbered Radiogram list may be used. State ARL (message #) in the Check of the Preamble, e.g., "Check ARL 15", and also in the Text, followed by an "X-ray" and Signature. More than one ARL numbered message can be sent in one piece of NTS traffic.

IV. SIGNATURE

V. EXAMPLE - The following is how the example message in Appendix 18 would be relayed using phone (FM or SSB) communication. It is not necessary to name each part of the message however the experience of both you and the relay station should be taken into account. Do whatever is necessary to eliminate confusion and pass the traffic accurately. Use *Prowords*, indicated by italics.

"Number 12 priority HX Echo KI5GX 10 St. Joseph's Medical Center, Ponca City, OK 0135Z June 5 Rene Roberts American Red Cross Blood Bank *Figures 523* South Main Wichita, KS 67407 *Telephone 316-555-6437 Break for Text* Need ETA on O-negative blood X-ray Situation near critical X-ray *Break for Signature* Dr. Jim Spangler *End of Message No More*"

A. Do not use Q-signals when using voice communication.

B. Speak slowly and clearly and pause frequently to give the receiving station a chance to break for fills. To request a fill the receiving station should say, "Fill on all after date" or "Fill on telephone number" and etc.

C. Spell out unusual words or names using ITU phonetics

## - Guidelines for Handling Traffic, “Site” and NTS

- Definitions ...

- “Traffic” simply means messages.

- For the purposes of this document “site traffic” shall be defined as messages (traffic) confined to the immediate disaster area that do not necessarily conform to the ARRL National Traffic System (NTS) formats. **Site traffic is not meant to enter the NTS and be forwarded via NTS nets.** Think of site traffic as local traffic.

- “NTS” (National Traffic System) traffic shall be defined as messages which come into the disaster area from the outside world or messages which proceed from the disaster area to the outside world which conform to the ARRL NTS format. **NTS traffic is meant to enter the NTS and be forwarded via NTS nets.**

- The distinctions “site” and “NTS” do not indicate relative importance but rather, the format in which the traffic is passed. The distinction is simply a matter dictated by expedience and practicality.

- Passing “site” traffic ...

- Most, if not all, traffic handled **within** the disaster area, especially during the early hours of the disaster, will be handled as **site** traffic. This does not mean site traffic is handled flippantly or with disregard; in fact most site traffic will be of higher priority than NTS traffic heading out of the disaster area! The urgency and sheer magnitude of a disaster requires that traffic be handled as quickly as possible and this usually means without the trappings of formal formatting.

- Amateur operators **should keep a record, however sketchy, of EACH piece of site traffic with which they are involved (originated, relayed or delivered).** Ideally the originator (person in charge of your duty site or other worker) should jot the message into your spiral notebook and SIGN it. The operator should then DATE and TIME stamp that entry and place it in your chronological log (spiral notebook, shoe box, clipboard, sack, etc. ... anything that will keep papers in chronological order).

- Reality, however, is a much less organized situation. Usually you will receive your traffic verbally from the person in charge because they just don't have time to write it down. **In this case, YOU jot it down in your spiral notebook, date and time stamp it along with the initials of the originator.** You can do all this as you are transmitting it to save time.

- **AT ALL COSTS, KEEP A RECORD OF EACH PIECE OF TRAFFIC,** including the ORIGINATOR (preferably signed by the same), DATE and TIME even if it means a hastily scrawled out message on a napkin. Then file that traffic in your chronological log (spiral notebook, shoe box, clip board, sack, etc. ... whatever will keep your papers in order).

- Originating and receiving NTS (National Traffic System) traffic ...

- It is beyond the scope of this manual to teach NTS net schedules, etiquette and procedures. This is allowable however, because ARES/RACES operators on the disaster site will be originators and receivers of NTS traffic rather than relayers.

- For this reason then, every ARES/RACES operator should know how to format and originate an official piece of NTS traffic and how to receive NTS traffic and fill out an ARRL Radiogram.

- An NTS Message Format Guide, ARRL Numbered Radiogram List and an example ARRL Radiogram are included in this manual. But don't wait until an emergency to learn how to use them!

- If you originate traffic that is headed out of the disaster area it must be in NTS format. Compose the traffic into NTS format and pass it to a Relay Unit who will in turn pass it into the NTS network.

### **ARRL Numbered Messages – For Possible “Relief Emergency” Use**

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 AA 164 EAST SIXTH AVE AA NORTH RIVER CITY MO AA PHONE 73-3968 BT ARL FIFTY ARL SIXTY ONE BT DIANA AR. For additional information about traffic handling, consult The ARRL Operating Manual, published by ARRL.

- |          |   |
|----------|---|
| 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 exists 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.

<b>Group Two – Routine Messages</b>
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- 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 Procedures**

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**—There is no abbreviation for this message classification. EMERGENCY is always written out as **EMERGENCY**, and is never abbreviated. 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.



## SECTION 8

### Harris County ARES Frequencies

#### HF

3873.0 LSB TX ARES (night)  
3935.0 LSB TX ARES H&W (night)  
3975.0 LSB TX RACES (night)  
7248.0 LSB TX RACES (day)  
7285.0 LSB TX ARES (day)  
7290.0 LSB TX ARES H&W (day)

#### V/UHF

147.000 (+) 103.5 County Wide  
145.370 (-) 123.0 North POD  
147.060 (+) 123.0 South POD  
145.256 USB SSB

#### North West

Freq Shift Tone Use

147.300 (+) 151.4 Primary  
146.840 (+) 103.5 Secondary  
145.370 (-) 123.0 Tertiary  
147.200 (+) 141.3 Katy  
146.440 N/A Simplex #1  
147.440 N/A Simplex #2  
146.660 (+) 141.3 Net 1st Sunday  
147.000 (+) 103.5 Net 2nd Sunday  
147.300 (+) 151.4 Net 3rd Sunday  
146.840 (+) 103.5 Net 4<sup>th</sup> Sunday  
147.000 (+) 103.5 Net 5<sup>th</sup> Sunday

#### North East

Freq Shift Tone Use

145.430 (-) N/A Primary  
147.280 (+) 100.0 Secondary  
147.280 simplex Tertiary  
147.280 Simplex #1  
145.430 (-) N/A Net Sunday  
147.000 (+) 103.5 Net 5<sup>th</sup> Sunday

#### South West

Freq Shift Tone Use

145.190 (-) 123.0 Primary  
145.170 (-) 123.0 Secondary  
146.940 (+) 167.9 Tertiary  
146.560 N/A Simplex #1  
147.560 N/A Simplex #2  
145.190 (-) 123.0 Net 1<sup>st</sup> Wednesday  
146.940 (+) 167.9 Net 2<sup>nd</sup> Wednesday  
145.170 (-) 123.0 Net 3<sup>rd</sup> Wednesday  
145.190 (-) 123.0 Net 4<sup>th</sup> Wednesday  
145.190 (-) 123.0 Net 5<sup>th</sup> Wednesday  
147.000 Net 5<sup>th</sup> Sunday

#### South East

Freq Shift Tone Use

146.640 (-) N/A Primary  
145.390 (-) 123.0 Secondary  
146.640 simplex Tertiary  
145.290 (-) 103.5 Pasadena  
146.780 (+) 123.0 Baytown  
146.540 N/A Simplex #1  
147.540 N/A Simplex #2  
146.640 (+) Net Tuesday  
147.000 Net 5<sup>th</sup> Sunday