

National Traffic System Basics for Phone (Radio)

Every Formal Radiogram message should contain the following four main components:

1. PREAMBLE:

Number	Precedence	Handling Instructions	Station of Origin	Check	Place of Origin	Time Filed	Date
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Assigned by Station of Origin; Never Changed; Begin with 1 each month of year	Determines order in which traffic passed. Always use ITU phonetics to assure accuracy. E=EMERGENCY P= Priority W=Welfare R=Routine (refer to ARRL Precedence Definitions below for more details)	HX <i>Optional</i> with Originating Station (OS) but if used it must be inserted by all relay stations. Used if a specific need is present A = Collect landline B =Cancelled if not delivered within # hours C =Report date & delivery time to originating station (OS) D =Report date, time, method & relay station identity to (OS) E =Delivering Station get reply from addressee & send to (OS) F =Hold delivery to specific date G =Deliver by mail or landline. If expense involved return to (OS) See below for more detail	The Call Sign of the originating station that created the message. First Amateur handler	The number of words or word groups in the text of the message. A word group is any group of one or more consecutive characters with no interrupt-ingo spaces	The Location (City & State) for whom the message was created which may or may not be the Originating Station (OS)	OPTIONAL Used only when the filing time has some importance relative to the Precedence, Handling Instructions or the message text	The date the message was filed. (If time filed is used, date and time must agree)

2. ADDRESS:

Name, address, city, state, ZIP, and telephone number of the intended recipient, as complete as possible. Note that punctuation is not used in the Address Section.

3. TEXT:

The message information is limited to 25 words or less if at all possible. Normal punctuation characters are not used in the text. A question mark is sent as QUERY. The letter X is used as a period (but never after the last group of the text) and counts as a word when figuring the Check. The letter R is used in place of a decimal in mixed figure groups (146R52 for 146.52)

4. SIGNATURE:

The name of the party for whom the message originated (not necessarily the originating station). May include additional information such as Amateur Radio Call Sign, title address, phone number etc.

RADIOGRAM MESSAGE EXAMPLE

Preamble 1 R HXG W1AW 8 Newington CT 1830Z July 1
 (A) (B) (C) (D) (E) (F) (G) (H)

Address DONALD SMITH
 164 EAST SIXTH AVENUE
 NORTH RIVER CITY MO 00789
 555 1234

Text HAPPY BIRTHDAY X SEE YOU SOON X LOVE

Signature DIANA

In PHONE messages use prowords instead of prosigns for example say Break instead of BT to separate the address from the text and the text from the signature. Say End of Message after signature instead of AR as would be sent in CW. It is not necessary to name each part of the message as you send it by phone. For example, the above message would be sent on phone as follows: "Number one routine HX Golf W1AW 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 five five five one two three four Break Happy birthday X-ray see you soon X-ray love Break Diana End of Message No More 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, pause frequently on push-to-talk or use VOX so that the receiving station can ask for clarification if something is not understood. Spell phonetically using ITU phonetics all difficult or unusual words preceded by "I spell" Do not spell out common words. *Do not use cw abbreviations or Q-signals in phone traffic handling.*

ARRL Precedence Definitions

All messages handled by Amateur Radio should contain a precedence--that is, an evaluation of each message's importance, made by the originating station. A precedence is an "order of handling." There are four precedences in the ARRL message form: Emergency(E), Priority (P), Welfare (W) and Routine (R), in that order of handling. When and as they appear on a net or any other kind of circuit, messages will be handled in this order.

(E) 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 to stricken populace in emergency areas. During normal times, it will be very rare. When in doubt, do not use this designation.

(P) Priority

Use abbreviation P for Priority. This classification is for important messages having a specific time limit, official messages not covered in the emergency category, press dispatches and emergency-related traffic not of the utmost urgency.

(W) Welfare

Use abbreviation W for Welfare. This classification 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).

(R) Routine

Use abbreviation R for Routine. Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine should be handled last, or not at all when circuits are busy with higher-precedence traffic.

NOTE The precedence will follow, but is not a part of the message number. For example, a message may begin with NR 207 R "Number Two Zero Seven, Routine" on phone.

Handling Instructions

Handling instructions (HX) are less used but quite useful in handling messages. They serve to convey any special instructions to handling and delivering operators. This "prosign," when used, is inserted in the message preamble between the precedence and the station of origin. Its use is optional with the originating stations, but once inserted is mandatory with all relaying stations. The following definitions apply:

HXA--(Followed by number) Collect landline delivery authorized by addressee Within (number inserted here) miles. (If no number inserted, authorization is unlimited.)

HXB--(Followed by number) Cancel message if not delivered within (number inserted here) 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 addressee, originate message back.

HXF--(Followed by number.) Hold delivery until (number inserted here)...(date).

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

Example: NR 207 R HXA50 W4MLE 12...(etc.).

If more than one HX prosign is used, they can be combined if no numbers are to be inserted, otherwise the HX should be repeated thus: NR 207 R HXAC W4MLE...(etc.).

ARRL NUMBERED RADIOGRAMS FOR POSSIBLE “RELIEF EMERGENCY USE”

Numbered Radiograms are an efficient way to convey common messages. The letters ARL are inserted in the Preamble in the Check and in the text before spelled out numbers, which represent text from this list. Note that some ARL text include insertion of information.

Example: NR 1 W W1AW ARL 4 NEWINGTON CT DEC 25 DONALD R SMITH 164 EAST SIXTH AVE NORTH RIVER CITY MO PHONE 733 3968 BT ARL ONE ARL TWO BT DIANA AR Note: BT is not used in phone like it is in CW to separate the text from the address and the text from the signature as it is in CW, RTTY, PACKET & AMTOR. AR (marking end of message) is also not used in Phone messages.

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 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.

Group Two—Routine Messages

- FORTY SIX Greetings on your birthday and best wishes for many more to come.

- FORTY SEVEN Reference your message number _____ to _____ delivered on _____ at _____ UTC.
- 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.**

TRANSMITTING A RADIOGRAM

Transmitting the radiogram for the first time applies both to originated radiograms and radiograms that have been received for relay.

Let's assume you have found a station to receive your radiogram, either by your own efforts to find one or as a result of having been told by a net control station to transmit it to so-and-so. You call him, he says he is ready to receive (QRV). A voice example would go something like this: "Message number fifteen, routine, W1A1, ten, Newington, Connecticut, two one five one zulu, April twelve. Mrs. Judy Smith, one nine zero eight Moon Street Northeast, Albuquerque, New Mexico, eight seven one one two, telephone two nine eight six four zero eight. Break. Mother and Dad arrived home safely Sunday afternoon X-ray love. Break. Uncle George. End of message, no more".

Radiograms should be sent by voice, not read. That is, reading puts emphasis on certain syllables and words, and this means de-emphasis of others. In transmitting a radiogram by voice, no word or syllable should be de-emphasized. Letting your voice fall at the end of a sentence as would be done in reading is poor practice in voice traffic work, as is letting your voice fall for unaccented syllables. You are not a broadcast announcer. Keep in mind that the receiving operator must put down what you transmit, completely and accurately.

Avoid such inanities during transmission as "Mrs., a married lady" or "Moon, opposite from Sun." They only confuse things and give a bad impression of our service. Avoid giving dates as "four, twelve, eighty-eight." Just say "April twelve" and forget the year. (We hope no message will be over a year old! Also, don't say "today's date." Spell all difficult or unusual words (e.g., "Ferrier, I spell F-E-R-R-I-E-R"). If the word is very difficult, unusual, or a group of letters not forming a word, spell it out using ITU phonetics (e.g. "NCOIC, I spell: November, Charlie, Oscar, India, Charlie.") Using phonetics excessively is poor procedure. Usually simply spelling the word is sufficient.

RECEIVING A RADIOGRAM

Some of the problems of receiving have already been touched on above. The principal rule to follow is do not, repeat do not assume you have received a part of a radiogram correctly if you are not absolutely certain. This is what causes most of the "garbles" in our amateur message handling. A single word lost in a crash of static can completely change the meaning of an entire message by voice. Most operators are prone to "guess" and usually they guess right. But if you did not actually "copy" the missing part, it is taking a chance. It's best to make sure.

Modern procedure, on voice uses "break in." On voice, this usually refers to "VOX" procedure, in which the transmitting operator can pause long enough between words or phrases to let his VOX relay open, enabling the receiving operator to say "break" if he misses something. If the sending station is using standard PTT (push to talk) instead of VOX, it must pause frequently to allow the receiving station to "break in" in the event it needs to ask for clarification. "Break-in" procedure is strongly recommended for all radiogram traffic.

If break-in is not used, it is necessary to get "fills." This makes it necessary for the receiving operator to note the parts missed and get the missing parts filled after the radiogram has been completed. On voice, simply ask for "word after..." or "word before..." or if more than one word might have been missed, "between... and." On voice say "say again or repeat" for clarification of difficult words, letters or groups.

Perhaps the second most prevalent cause of "garbling" of messages is poor handwriting. Many people cannot make out their own handwriting a day or more after it is written, and in some cases only an hour or so delay can erase the memory of what a scrawl is supposed to mean. The answer is to copy by typewriter or a personal computer. A little

practice is all that is needed to be able to do this as easily as copying by pencil; usually it is faster, and always is more legible. If you must copy by hand, require the transmitting operator to send at a speed at which you can write legibly; don't scrawl illegibly because you don't want to admit you can't copy that fast. Copy five words or groups to a line by hand, ten (5+5) by computer, to enable an instant "check of the check." In fact, this is the origin of the word "check" for word count.

RELAYING THE RADIOGRAM

The rule is that received radiograms must be relayed or delivered within 48 hours after receipt. However, this is only a "counting" rule; for practical purposes, the rule is to relay or deliver the message as soon as possible after receipt. This means immediately if you have an outlet; otherwise, as soon as an outlet is available. The public is conditioned to "instant communication" and will be unimpressed with messages, even free ones, which are slower than the mail, and in some cases "slower than walking."

Relaying the message uses the same procedure as transmitting, but here are some principles that are applicable especially to relaying. For one thing, when you are relaying a message, its contents are none of your concern. You take no action and make no changes, nor any comments on its contents, except in making sure you receive it correctly and relay it in the same condition. Neither do you judge its importance, except on the basis of the precedence assigned to it by the originating station. If you disagree with the precedence assigned, your argument is with the originating station, not necessarily the one sending the message to you.

Relaying stations are authorized to change the form of radiograms they handle, if incorrect when received, but not the content. Even spellings that appear to be obviously incorrect are best relayed exactly as sent; for all you know, the writer may have a purpose in spelling incorrectly. The best rule to follow in relaying is to relay the radiogram exactly as you received it, after making certain that you received it correctly. If the station sending it to you is the originating station, he may change it if desired; otherwise, no changes (except in form) should be made.

COUNTING RADIOGRAMS

All amateurs who handle traffic are invited to report their total message count monthly to their Section Manager. For counting purposes, traffic is divided into a few categories, as follows:

Originated: Any radiogram originated by someone other than yourself, filed with your station for initial transmission on the air.

Received: Every radiogram received by Amateur Radio at your station. This includes all messages received, whether received for relay or received for delivery.

Sent: Any message transmitted from your station by radio to another station, whether such a message was initially transmitted from your station or was received from another station.

Delivered: Any message delivered by you to the addressee, provided that the message was received at your station by radio and that the addressee is someone other than yourself. This delivery must be an off-the-air function (by telephone, mail in-person, etc.)

The traffic total is the sum of originated received, sent and delivered points. Note that in some cases the same message can be counted twice; for example, the same message received by radio and then relayed to another station by radio is counted both in the "received" and "sent" categories, while a message received by radio and then delivered is counted both in "received" and "delivered" categories.

When transmitting or receiving messages in book form, count one point for every three messages in the book, plus another point for any over a multiple of three. That is, a book of three messages would count as a single message, but a book of four, five or six would count as two, and a book of seven would count as three, etc. "Booking" of messages is a time-saving device for those who want to use it in the interest of efficiency. It is similarly perfectly proper procedure to separate booked messages into single messages if desired; that is, the transmitting station decides in what form they shall be sent, as long as it is proper. Each message, regardless of its content, deserves to receive separate treatment. Messages handled using unauthorized "short cuts" cannot properly be included in your traffic count.

ACKNOWLEDGEMENTS

This document was compiled by KI6HHA from information forms and excerpts obtained from the ARRL Repeater Directory, the ARRL Operating Manual and text provided by the California Traffic Net which is on daily beginning at 1830 local time on a frequency of 3.906 MHz. For more information visit <http://www.arrl.net> or <http://www.califtrafficnet.com/>

AMATEUR RADIO MESSAGE FORM

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

TO	
NAME	
ADDRESS	
CITY, ST ZIP	
PHONE	

THIS MESSAGE WAS RECEIVED AT:	
Amateur Station	
Date	
Name	
Street Address	
City, State, Zip	

MESSAGE TEXT				

RECEIVED			SENT		
FROM	DATE	TIME	TO	DATE	TIME

AMATEUR RADIO DISASTER WELFARE MESSAGE FORM

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

TO		MESSAGE RECEIPT OR DELIVERY INFORMATION:	
NAME		Operator & Station	
ADDRESS		Sent To:	
CITY, ST ZIP		Delivered To:	
PHONE		Date	
		Time	

(Circle not more than two standard texts from the list below)

- ARL ONE Everyone safe here. Please don't worry
- ARL TWO Coming home as soon as possible.
- ARL THREE Am in _____ hospital. Receiving excellent care and recovering fine.
- ARL FOUR Only slight property damage here. Don't be concerned about disaster reports
- ARL FIVE Moving to new location. Don't send mail here. I'll inform you of new address ASAP
- ARL SIX Will contact you as soon as possible
- ARL SIXTY FOUR Arrived safely at _____

TIME	DATE	TELEPHONE	SIGNATURE	NAME