

## Topic 14: Basic Message Handling and Documentation

EC-001:  
Section 3: Message Handling



LEARNING CENTER

### Objectives

#### Welcome to Topic 14.

This topic is intended to provide you with basic knowledge for both formal and informal message handling, but it is not intended to make you an “expert.” Further study and practice on your own will be necessary.

#### Student Preparation required:

None.

### Introduction

If an operator had generated and properly logged a formal message, with an authorized signature, it would be a relatively simple matter to track. The informal message has no tracks to follow. Also, by sending a formal message, you are nearly guaranteeing that the receiving station will write it down properly (with a signature) and log it, greatly enhancing its chances of being delivered intact.



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## Formal Versus Informal Messages

Both formal and informal messages have their place in emergency communications. In general, *informal messages* are best when the content is non-critical and simple, or when they require immediate action, those are delivered directly from the author to the recipient.

*Formal messages* are more appropriate when two or more people will handle them before they reach the recipient, or when the contents are critical or contain important details. Common formal message formats used by ARRL's National Traffic System (NTS) will be discussed here.

## Informal Oral Messages

Some emergency messages are best sent informally in the interest of saving precious seconds. If you need an ambulance for a severely bleeding victim, you do not have time to compose and send a formal message. The resulting delay could cause the patient's death. Other messages do not require a formal written message because they have little value beyond the moment. Letting the Net Control Station (NCS) know where you are or when you will arrive need not be formal. The message is going directly to its recipient, is simple and clear, and has little detail. Many of the messages handled on a tactical net fit this description.

## Informal Written Messages

When we send a written message, we do it to preserve accuracy, no matter how many people pass the message along. It may be that informal or "tactical" messages are not written out in ARRL format, or not written at all. However, this does not mean that accuracy is any less important. If someone gives you a short message to relay to someone else, you should repeat it as closely to the original as possible. Messages that will be relayed more than once should always be sent in a standard format to prevent multiple modifications that may affect the meaning.

Here is an example of what might happen if you are not careful to maintain the precise meaning of the original message:

The original message says: "The shelter manager says she needs 50 cots and blankets at Hartley Hill School by tonight."

The message, after being passed through several people, says: "He says they need a bunch more cots and blankets at that school on the hill."

## Message Handling Rules

Do not speculate on anything relating to an emergency! There may be hundreds of people



listening to what you say (other amateurs, the media, and the general public using scanners), and any incorrect information could cause serious problems for the partners or others. You do not want to be the source of any rumor. If your partner requests an estimate, you can provide that information as long as you make it very clear that it is only an estimate. For example, “The estimated number of homes damaged is 12,” would be an acceptable thing to say.

Pass messages exactly as they have been written or spoken. Even more important than speed is accuracy; your job as a communicator is to deliver each message as accurately as possible. Therefore, you must not change any message as you handle it. If it is longer than you would like, you must send it anyway. Seemingly misspelled words or confusing text must be sent exactly as received. Only the original author may make changes. If you note an inaccurate word count in an NTS format message, you must maintain the original count and follow it with the actual count received at your station, i.e., “12/11.”

Some volunteers wonder whether they should return a confusing or incorrect-seeming message to the author before first sending it. This is a judgment call. If the apparent error will affect the meaning of the message and the author can be contacted easily, checking with the author is probably a good idea. Whenever possible, it is a good practice to read each message carefully in the presence of the author before accepting it. This way, potential errors or misunderstandings can be corrected before the message is sent.

### **Formal Written Message Formats**

A standard written message format is used so everyone knows what to expect. This increases the speed and accuracy with which you can handle messages. Two message formats, FEMA Incident Command System (ICS) form ICS 213 and ARRL’s message form, or “Radiogram,” are used for passing messages on various nets and are required for all messages sent through the National Traffic System. While these formats may not be perfect for all applications, they serve as a baseline that can be readily adapted for use by specific partners. Regular practice with creating and sending messages in any format is recommended.

### **Modified Message Form for Disasters**

While ARRL format messages can handle many different types of information flow, the requirements for formats may be unique to an individual partner or type of emergency. Your emergency communications group should work with each partner before the emergency to see which format will best fulfill their needs. A good example is the popular ICS form ICS 213, which is used by most government agencies.



## ICS 213 General Message

**Purpose:** The General Message (ICS 213) is used to record incoming messages that cannot be orally transmitted to the intended recipients. The ICS 213 is also used by the Incident Command Post and other incident personnel to transmit messages (e.g., resource order, incident name change, other ICS coordination issues) to the Incident Communications Center for transmission via radio or telephone to the addressee. This form is used to send any message or notification that requires hard-copy delivery to incident personnel.

**Preparation:** The ICS 213 may be initiated by incident dispatchers and any other personnel on an incident.

**Distribution:** Upon completion, the ICS 213 may be delivered to the addressee and/or delivered to the Incident Communications Center for transmission.

Instructions for completing the ICS-213 can be found at:

[ICS 213 form & instructions](#)

### Example of an ICS 213

| GENERAL MESSAGE (ICS 213)  |          |                  |
|--|----------|------------------|
| 1. Incident Name (Optional):                                       |          |                  |
| 2. To (Name and Position):   |          |                  |
| 3. From (Name and Position):                                       |          |                  |
| 4. Subject:  | 5. Date: | 6. Time:         |
| 7. Message:  |          |                  |
| 8. Approved by: Name: _____ Signature: _____ Position/Title: _____ |          |                  |
| 9. Reply:  |          |                  |
| 10. Replied by: Name: _____ Position/Title: _____ Signature: _____ |          |                  |
| ICS 213  |          | Date/Time: _____ |



| Block Number | Block Title   | Instructions   |
|--------------|---|--|
| 1            | <b>Incident Name</b><br>(Optional)  | Enter the name assigned to the incident. This block is optional.   |
| 2            | <b>To</b> (Name and Position)   | Enter the name and position for which the General Message is intended. For all individuals, use at least the first initial and last name. For Unified Command, include agency names.     |
| 3            | <b>From</b> (Name and Position)   | Enter the name and position of the individual sending the General Message. For all individuals, use at least the first initial and last name. For Unified Command, include agency names. |
| 4            | <b>Subject</b>  | Enter the subject of the message.  |
| 5            | <b>Date</b>   | Enter the date (month/day/year) of the message.  |
| 6            | <b>Time</b>   | Enter the time (using the 24-hour clock) of the message.   |
| 7            | <b>Message</b>  | Enter the content of the message. Try to be as concise as possible. Here you can also include Amateur Radio-specific “Radiogram” number, Precedence, Handling Instructions, check, etc.  |
| 8            | <b>Approved by</b> <ul style="list-style-type: none"> <li>• Name</li> <li>• Signature</li> </ul>                          | Enter the name, signature, and ICS position/title of the person approving the message.   |
| 9            | <b>Reply</b>  | The intended recipient will enter a reply to the message and return it to the originator.  |
| 10           | <b>Replied by</b> <ul style="list-style-type: none"> <li>• Name</li> <li>• Position/Title</li> <li>• Signature</li> </ul> | Enter the name, ICS position/title, and signature of the person replying to the message. Enter date (month/day/year) and time prepared (24-hour clock).                                  |

### Non-Standard Format Messages

Much of the tactical information being passed during a major emergency will not be in ARRL format. It may have much of the same information but will be in a non-amateur format or no format at all. These messages should also be passed exactly as received. If necessary, use the ARRL format and place the entire non-amateur message in the “message” section of the ICS 213.

### A Reminder of the Importance of the Signature

During an emergency, the messages you handle can easily contain requests for expensive supplies that have a very limited “shelf life” (such as blood for a field hospital), or for agencies that will only respond to properly authorized requests (i.e., for medevac helicopters). For this reason, it is critical that you include the signature and title of the sender in every message.



## Service Messages

A *service message* is one that lets the originating station know the status of a message they have sent. A service message may be requested by a handling instruction (HX) or may be sent by any operator who has a problem delivering an important message. During emergencies, service messages should only be sent for priority and emergency messages.

## Logging and Record-Keeping

The ICS 214 is an increasingly popular method for logging. It maintains an accurate record of formal messages handled and various aspects of your station's operation that can be very useful later, and in some cases, it is required by law. Lost or misdirected messages can be tracked down later, and a critique of the operation afterwards can be more accurate. All logs should include enough detail to be meaningful later on, especially the date and an accurate time. With some agencies, your log becomes a legal document and may be needed at some later time should an investigation occur. In this case, logs should be completed and turned in to the appropriate person for safekeeping and review.

## ICS 214 Activity Log

**Purpose:** The Activity Log (ICS 214) records details of notable activities at any ICS level, including single resources, equipment, task forces, etc. These logs provide basic incident activity documentation, and a reference for any after-action report.

**Preparation:** An ICS 214 can be initiated and maintained by personnel in various ICS positions as needed or appropriate. Personnel should document how relevant incident activities are occurring and progressing, or any notable events or communications.

**Distribution:** Completed ICS 214s are submitted to supervisors who forward them to the Documentation Unit, which maintains a file of all ICS 214s. It is recommended that individuals retain a copy for their own records.





| Block Number | Block Title   | Instructions   |
|--------------|---|--|
| 1            | <b>Incident Name</b>  | Enter the name assigned to the incident.   |
| 2            | <b>Operational Period</b> <ul style="list-style-type: none"> <li>Date and Time From</li> <li>Date and Time To</li> </ul>                | Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.   |
| 3            | <b>Name</b>   | Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).  |
| 4            | <b>ICS Position</b>   | Enter the name and ICS position of the individual in charge of the unit.   |
| 5            | <b>Home Agency</b> (and Unit)   | Enter the home agency of the individual completing the ICS 214. Enter a unit designator if utilized by the jurisdiction or discipline.   |
| 6            | <b>Resources Assigned</b>   | Enter the following information for resources assigned:  |
|              | <ul style="list-style-type: none"> <li>Name</li> </ul>  | Use this section to enter the resource's name. For all individuals, use at least the first initial and last name. Cell phone number for the individual can be added as an option.  |
|              | <ul style="list-style-type: none"> <li>ICS Position</li> </ul>  | Use this section to enter the resource's ICS position (e.g., Finance Section Chief).   |
|              | <ul style="list-style-type: none"> <li>Home Agency (and Unit)</li> </ul>  | Use this section to enter the resource's home agency and/or unit (e.g., Des Moines Public Works Department, Water Management Unit).  |
| 7            | <b>Activity Log</b> <ul style="list-style-type: none"> <li>Date/Time</li> <li>Notable Activities</li> </ul>                             | <ul style="list-style-type: none"> <li>Enter the time (24-hour clock) and briefly describe individual notable activities. Note the date as well if the operational period covers more than one day.</li> <li>Activities described may include notable occurrences or events such as task assignments, task completions, injuries, difficulties encountered, etc.</li> <li>This block can also be used to track personal work habits by adding columns such as "Action Required," "Delegated To," "Status," etc.</li> </ul> |
| 8            | <b>Prepared by</b> <ul style="list-style-type: none"> <li>Name</li> <li>Position/Title</li> <li>Signature</li> <li>Date/Time</li> </ul> | Enter the name, ICS position/title, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).   |





## What to Log

Log all incoming and outgoing messages. Record the name of the sender, addressee, the station that passed the message to you, the station to whom the message was sent, the message number, and the times in and out. Keep the written copy of each message in numerical order for future reference.

Also, log which operators are on duty for any given period and record any significant events at your station. These might include changes in conditions, power failures, meals, new arrivals and departures, equipment failures, and so on.

In addition to the log, copies of all messages should be kept and catalogued for easy retrieval if needed later for clarification or message tracking. Many operators make notes about when the message was received and sent, as well as to whom and from whom, directly on the message form itself. This helps speed up tracking later on. Never rely on your memory.

Should informal messages be logged? This is usually up to the stations involved and depends on the circumstances. Even informal messages can contain important details that may need to be recalled later. Emergency or priority messages of any kind, even unwritten ones, should always be logged. Some net control operators like to log every message or exchange, no matter how inconsequential. Others like to log only those with potentially important details.

## Log Formats

At a station with little traffic, all information can be included in one chronological log. However, if a large number of messages are being handled and you have a second person to handle logging, separate logs can make it faster and easier to locate information if it is needed later. You might keep one log for incoming messages, one for outgoing messages, and a third for station activities. The NCS will also need to keep a log of which operators are assigned to each station, and the times they go on and off duty.

## Who Should Log

At the net level, logging can be handled in several ways. If activity is low, the net control operator can handle logging. In busy nets, a second person can keep the log as the net's "secretary" and act as a "second set of ears" for the NCS. The logger can be at the NCS, or they might be listening from a different location.

If an "alternate NCS" station has been appointed, they should keep a duplicate log. If they need to "take over" the net, all the information will be at hand, preserving the continuity of the net.

In addition to logs kept at the net level, each individual operator should keep his or her own log.



This will allow faster message tracking and provides duplicate information should one station's logs become lost or damaged.

In a fast-moving tactical net, keeping a log while on the move may be impossible for individual stations. In this case, the Net Control Station may decide to keep one log detailing the various informal messages passed on the network.

Logging is a good position for a trainee with limited experience or an unlicensed volunteer. Two experienced and licensed operators can also alternate between on-air and logging duties to help combat fatigue.

### **Writing Hints and Techniques for Message Copying and Logging**

Your logs should be clear and legible to be of any use. If only you can read your handwriting, the log will be of little value to the operator who takes the next shift, or to the partners as a legal document. Print in neat block letters on lined paper or a preprinted log form. A firm writing surface with support for your forearm will reduce fatigue and improve legibility. Keep both pens and pencils on hand because each works better under different conditions. Logs that will become legal documents should always be written in permanent ink. Some operators prefer special "diver's" pens that will write on wet surfaces at any angle.

Logs should be kept in notebooks to prevent pages from becoming lost. If preprinted log sheets are used, file them in a three-ring binder. If more than one log is kept, each should be in its own notebook to prevent confusion and accidental entries. Logs that will become legal documents should be kept in hard-bound books with prenumbered pages so that missing pages will be obvious.

In fast-moving situations, keeping a log of any kind can be difficult or impossible. If a message, exchange, or event should be logged, try to do it as soon as possible afterwards, or ask the NCS to add it as a notation in his or her log. If there are enough operators to do this, one may be assigned the sole task of logging the net's operations, thus freeing up other net participants to handle messages more quickly.

### **Message Authoring — Them or Us?**

One of the oldest arguments in emergency communications is over the question of whether or not emergency communications personnel should author (create) partner-related official messages. If your job is strictly communication, and the message is not about the communication function you are providing, the best answer is no. "Pure" communicators are not generally in a position to create messages on behalf of the partners. They have no direct authority and usually lack necessary knowledge. However, you should always work with a message's author to create text that is clear and to the point, and that uses the minimum



number of words necessary. Once you do this with most partner personnel, they will be happy to send you appropriate messages, since it saves them time, too. If the author tells you to “just take care of the wording for me,” it is still a good idea to get their final approval and signature before sending the message.

If you have had additional training for a partner — a specific job that involves message origination, that is quite different from the situation of a “pure” communicator. In this case, you may be able to generate an official message if you have been given the authority to do so.

Other messages that can and should be generated by all emergency communications operators are those that deal solely with communication. Examples would be messages about net operations and frequencies, and requests for relief operators, radio equipment, supplies, food, and water for emergency communications personnel.

### **Message Security and Privacy**

Information transmitted over Amateur Radio can never be totally secure, since FCC rules strictly prohibit us from using any code designed to obscure a message’s actual meaning. Anyone listening in with a scanner can hear everything that is said on voice nets. The federal Communications Privacy Act does not protect Amateur Radio communications, and anything overheard may be legally revealed or discussed. Reporters in disaster-prone areas have been known to purchase digital-mode decoding software for laptops in order to intercept ham radio communications during disasters.

However, this does not mean that you can discuss any message you send with others. Messages sent via Amateur Radio should be treated as privileged information and revealed only to those directly involved with sending, handling, or receiving the message. This must be done to offer at least a minimum level of message security. You cannot prevent anyone from listening on a scanner, but you can be sure they do not get the information directly from you.

Your partners should be made aware of this issue and must decide which types of messages can be sent via Amateur Radio and using which modes. The American Red Cross (ARC) has strict rules already in place. In general, any message with personally identifiable information about clients of the partners should be avoided — this is a good policy to follow with any partner, if you are in doubt. Messages relating to the death of any specific person should never be sent via Amateur Radio. Sensitive messages should be sent using telephone, landline fax, courier, or a secure partner radio or data circuit. While we can never guarantee that a message will not be overheard, there are ways to reduce the likelihood of casual listeners picking up your transmissions.

Here are some security ideas: Use a digital mode: packet, PSK31, fax, RTTY, AMTOR, digital phone, etc. Pick an uncommon frequency — stay off regular packet nodes or simplex channels.



Do not discuss frequencies or modes to be used openly on voice channels. Avoid publishing certain ARES or RACES net frequencies on websites or in any public documents. Some agencies use a system of “fill in the blank” data gathering forms with numbered lines. To save time on the radio all that is sent is the line number and its contents. A casual listener might hear, “Line 1, 23; line 5, 20%; line 7, zero.” The receiving station is just filling in the numbered lines on an identical form. Without the form, a casual listener will not have any real information. As long as encryption is not the primary intent, this practice should not violate FCC rules.

## Other Documents

### ICS 205 Radio Communications Plan

**Purpose:** The Incident Radio Communications Plan (ICS 205) provides information on all radio frequency or trunked radio system talkgroup assignments for each operational period. The plan is a summary of information obtained about available radio frequencies or talkgroups and the assignments of those resources by the Communications Unit Leader for use by incident responders.

**Preparation:** The ICS 205 is prepared by the Communications Unit Leader and given to the Planning Section Chief for inclusion in the Incident Action Plan (IAP).

**Distribution:** The ICS 205 is duplicated and given to all recipients as part of the IAP. All completed original forms must be given to the Documentation Unit. Information from the ICS 205 is placed on Assignment Lists.



## Example of an ICS 205

[illegible]

## Example of an ICS 201

| <b>INCIDENT BRIEFING (ICS 201)</b>  |                            |   |
|---|----------------------------|---|
| <b>1. Incident Name:</b>  | <b>2. Incident Number:</b> | <b>3. Date/Time Initiated:</b><br>Date: _____ Time: _____ |
| <b>4. Map/Sketch</b> (include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment): <div style="height: 300px; border: 1px solid black; margin-top: 5px;"></div>   |                            |   |
| <b>5. Situation Summary and Health and Safety Briefing</b> (for briefings or transfer of command): Recognize potential incident Health and Safety Hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards. <div style="height: 200px; border: 1px solid black; margin-top: 5px;"></div> |                            |   |
| <b>6. Prepared by:</b> Name: _____ Position/Title: _____ Signature: _____   |                            |   |
| <b>ICS 201, Page 1</b>  |                            | Date/Time: _____  |


## Components of a Standard ARRL Radiogram

The standard Radiogram format is familiar to most ham radio operators from the pads of yellow-green forms available from ARRL Headquarters. The form has places for the following information:

1. The **Preamble**, sometimes referred to as “the header,” consists of administrative data such as the message number, originating station, message precedence (importance), and

date and time of origination.

- The **Address** includes the name, street address or post office box, city, state, and zip code of the recipient.
- The **Text** of the message should be brief and to the point, limited to 25 words or less when possible. The text should be written in lines of five words (10 if using a keyboard) to make it easier and faster to count them for the “check.” Where needed, the “period” can be sent as an “X” in CW and digital modes, and spoken as “X-RAY.” The “X” may be used to separate phrases or sentences but never at the end of the text. Question marks are spelled out in text and spoken as “question mark,” and sometimes as “query.” Both the X and question mark should be used only when the meaning of the message would not be clear without them.
- The **Signature** can be a single name, a name and call sign, a full name and a title, “Mom and Dad,” and occasionally a return address and phone number — whatever is needed to ensure that the recipient can identify the sender and that a reply message can be sent if necessary.



**The American Radio Relay League**  
**RADIOGRAM**  
**Via Amateur Radio**

|                      |                        |                |                                  |                    |                                      |                                     |      |
|----------------------|------------------------|----------------|----------------------------------|--------------------|--------------------------------------|-------------------------------------|------|
| Number<br><b>207</b> | Precedence<br><b>P</b> | RX<br><b>E</b> | Station of Origin<br><b>W1FN</b> | Check<br><b>10</b> | Place of Origin<br><b>LEBANON NH</b> | Time Filed<br><b>1200 EST JAN 4</b> | Date |
|----------------------|------------------------|----------------|----------------------------------|--------------------|--------------------------------------|-------------------------------------|------|

To:

**MARK DOE**  
**RED CROSS DISASTER OFFICE**  
**123 MAIN ST**  
**RUTLAND VT 05701**

Telephone Number: **802-555-1212**

This Radio Message was received at:

Amateur Station \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

|             |             |             |             |                   |
|-------------|-------------|-------------|-------------|-------------------|
| <b>NEED</b> | <b>MORE</b> | <b>COTS</b> | <b>AND</b>  | <b>SANITATION</b> |
| <b>KITS</b> | <b>AT</b>   | <b>ALL</b>  | <b>FIVE</b> | <b>SHELTERS</b>   |
| _____       | _____       | _____       | _____       | _____             |
| _____       | _____       | _____       | _____       | _____             |

**JOAN SMITH SHELTER MANAGER**

| 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.

## Details of the Preamble

The preamble or “header” is the section of the ARRL message form where all the administrative details of the message are recorded. There are eight sections or “blocks” in the preamble. Two



of them, “time filed” and “handling instructions,” are optional for most messages.

### **Block #1 — Message Number**

This is any number assigned by the station that first puts the message into ARRL format. While any alphanumeric combination is acceptable, a common practice is to use a numeric sequence starting with the number “1” at the beginning of the emergency operation. Stations that are involved in day-to-day message handling may start numbering at the beginning of each year or each month.

### **Block #2 — Precedence**

The precedence tells everyone the relative urgency of a message. In all but one case, a single-letter abbreviation is sent with CW or digital modes. On the phone, the entire word is always spoken. Within the ARRL format, there are four levels of precedence:

**Routine** — Abbreviated as “R.” Most day-to-day amateur traffic is handled using this precedence — it is for all traffic that does not meet the requirements for a higher precedence. In a disaster situation, routine messages are seldom sent.

**Welfare** — Abbreviated as “W.” Used for an inquiry as to the health and welfare of an individual in a disaster area, or a message from a disaster victim to friends or family.

**Priority** — Abbreviated as “P.” For important messages with a time limit; any official or emergency-related messages not covered by the EMERGENCY precedence. This precedence is usually only associated with official traffic to, from, or related to a disaster area.

**EMERGENCY** — there is no abbreviation; the word “EMERGENCY” is always spelled out. Use this for any message having life-or-death urgency. This includes official messages from agencies requesting critical supplies or assistance during emergencies, or other official instructions to provide aid or relief in a disaster area. The use of this precedence should generally be limited to traffic originated and signed by authorized partner officials. Due to the lack of privacy on radio, EMERGENCY messages should only be sent via Amateur Radio when regular communication facilities are unavailable.

### **Block #3 — Handling Instructions**

This is an optional field used at the discretion of the originating station. The seven standard HX prosigns are:

**HXA** (followed by number) — “Collect” telephone delivery authorized by addressee within (X) miles. If no number is sent, authorization is unlimited.





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

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

HXD — Report to originating station the identity of the station that delivered the message, plus date, time, and method of delivery. Also, each station to report identity of station to which relayed, plus date and time.

HXE — Delivering station to get and send reply from addressee.

HXF — (followed by date in numbers) — Hold delivery until (specify date).

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

If more than one HX prosign is used, they can be combined like this: HXAC. However, if numbers are used, such as with HXF, the HX must be repeated each time. On voice, use phonetics for the letter or letters following the HX to ensure accuracy, as in “HX Alpha.”

#### **Block #4 — Station of Origin**

This is the FCC call sign of the first station that put the message into Radiogram format. It is not the message’s original author.

#### **Block #5 — The Check**

The “check” is the number of words in the text section only. Include any “periods” (written as “X,” spoken as “X-RAY”). The preamble, address, and signature are not included. After receiving a message, traffic handlers count the words in the message and compare the word count to the “check” number in the preamble. If the two numbers do not agree, the message should be reread by the sending station to verify that all words were copied correctly. If the message was copied correctly and an error in the check number exists, do not replace the old count with the new count. Instead, update the count by adding a “slash” followed by the new count. For example, if the old count was five, and the correct count was six, change the check to “5/6.”

#### **Block #6 — Place of Origin**

This is the name of the community, building, or partner where the originator of the message is located, whether a ham radio operator or not. This is not the location of the station that



first handled the message, which is listed in Block 4, “Station of Origin.”

### Block #7 — Time Filed

This is an optional field, unless handling instruction “Bravo” (HXB) is used. HXB means “cancel if not delivered within X hours of filing time.” Unless the message is time-sensitive, this field may be left blank for routine messages, but completing the time field is generally recommended for Welfare, Priority, and Emergency messages. Many hams use Universal Coordinated Time (UTC) for messages and logging. During emergencies, it is better to use local time and indicators such as PST or EDT to eliminate confusion by partner personnel.

### Block #8 — Date

This is the date the message was first placed into the traffic system. Be sure to use the same date as the time zone indicated in Block 7. Here is an example:

This is how a complete header might look for a CW or digital message:

NR207 P HX E W1FN 10 LEBANON NH 1200 EST JAN 4

This is how the same header would be spoken:

“Number two zero seven Priority Hotel X-Ray Echo Whiskey One Foxtrot November One Zero Lebanon NH one two zero zero EST January four.”

A brief pause is made between each block to help the receiving station separate the information. Note that the title of each block is not spoken, with the exception of the word “number” at the beginning, which tells the receiving station that you are beginning the actual message.

| The American Radio Relay League<br>RADIOGRAM<br>Via Amateur Radio  |            |      |                   |       |                 |            |       |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
|--|------------|------|-------------------|-------|-----------------|------------|-------|-------|------|------|------|------|----|------|------|---|--|--|--|--|--|--|--|
| Number   | Precedence | KE   | Station of Origin | Check | Place of Origin | Time Filed | Date  |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| 207  | P          | E    | W1FN              | 10    | LEBANON NH      | 1200 EST   | JAN 4 |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| To: MARK DOE<br>RED CROSS DISASTER OFFICE<br>123 MAIN ST<br>RUTLAND VT 05701<br>Telephone Number: 802-555-1212   |            |      |                   |       |                 |            |       |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| <div style="float: right; border: 1px solid black; padding: 5px;">           This Radio Message was received at:<br/>           Amateur Station: _____ Date: _____<br/>           Name: _____<br/>           Street Address: _____<br/>           City, State, Zip: _____         </div>   |            |      |                   |       |                 |            |       |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| <div style="display: flex; justify-content: space-around;"> <div>NEED<br/>KITS</div> <div>MORE<br/>AT</div> <div>COTS<br/>ALL</div> <div>AND<br/>FIVE</div> <div>SANITATION<br/>SHELTERS</div> </div>  |            |      |                   |       |                 |            |       |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| JOAN SMITH SHELTER MANAGER   |            |      |                   |       |                 |            |       |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| <table border="1" style="width: 100%;"> <thead> <tr> <th>REC'D</th> <th>From</th> <th>Date</th> <th>Time</th> <th>SENT</th> <th>To</th> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td colspan="8"> <small>               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.             </small> </td> </tr> </tbody> </table> |            |      |                   |       |                 |            |       | REC'D | From | Date | Time | SENT | To | Date | Time | <small>               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.             </small> |  |  |  |  |  |  |  |
| REC'D  | From       | Date | Time              | SENT  | To              | Date       | Time  |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |
| <small>               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.             </small>  |            |      |                   |       |                 |            |       |       |      |      |      |      |    |      |      |   |  |  |  |  |  |  |  |



## Prowords and Prosigns

When sending formal traffic, standard “prowords” or prosigns” (CW) are used to begin or end parts of the message, and to ask for portions of the message to be repeated. In addition to adding clarity, the use of standard prowords and prosigns saves considerable time. Some prowords and prosigns tell the receiving station what to expect next in the address, text, and signature portions of the message — they are not used while reading the header, since the header follows a pre-determined format. Examples of commonly used prowords are: “figures” sent before a group consisting of all numerals, “initial” to indicate that a single letter will follow, and “break” to signal the transition between the address and the text, and the text and the signature.

### Message Handling Prowords, Prosigns, and Abbreviations

| Proword     | Prosign (CW) | Meaning or Example   |
|-------------|--------------|--|
| BREAK       | BT*          | Separates address from text and text from signature                        |
| CORRECTION  | HH*          | “I am going to correct an error.”  |
| END         | AR*          | End of message   |
| MORE        | B            | Additional messages to follow  |
| NO MORE     | N            | No additional messages. In CW can also mean “negative” or “no”             |
| FIGURES     | Not Needed   | Used before a word group consisting of all numerals                        |
| INITIAL     | Not Needed   | Used to indicate a single letter will follow                               |
| I SAY AGAIN | IMI*         | Used to indicate a single phrase will follow                               |
| I SPELL     | Not Needed   | “I am going to spell a word phonetically.”                                 |
| LETTER      | Not Needed   | Several letters together in a group will follow. Example: ARES, SCTN       |
| MIXED GROUP | Not Needed   | Letters and numbers combined in a group will follow. Example: 12BA6        |
| X-RAY       | X            | Used to indicate end of sentence, as with a “period.”                      |
| BREAK       | BK*          | Break; break-in; interrupt current transmission on CW                      |
| CORRECT     | C            | Correct, yes   |
| CONFIRM     | CFM          | Confirm (please check me on this)  |
| THIS IS     | DE           | Used preceding identification of your station                              |
| HX          | HX           | Handling instructions, single letter to follow — optional part of preamble |
| GO AHEAD    | K            | Invitation for specific station to transmit                                |
| ROGER       | R            | Message understood. In CW, may be used for decimal point in context        |
| WORD AFTER  | WA           | “Say again word after ...”   |
| WORD BEFORE | WB           | “Say again word before ...”  |
| BETWEEN     | -            | “Say again between ... and ...”  |
| ALL AFTER   | AA*          | Say again all after ...”   |
| ALL BEFORE  | AB           | “Say again all before ...”   |

\*Two letters are sent as one character.



## Sending a Message with Voice

When the receiving station is ready to copy, read the message at a pace that will allow the receiving station to write it down. Once you are done, if the receiving station has missed any portion of the message they will say, “say again all after \_\_\_\_\_,” “say all before,” or “say again all between \_\_\_\_\_ and \_\_\_\_\_.” In some nets, the practice is to say “break” and then unkey between sections of the message so that a station can ask for missing words to be repeated before going on (these repeated words are also known as “fills”). In many nets the entire message is read first before any fills are requested, to save time. All numbers in groups are spoken individually, as in “three two one five,” not “thirty-two fifteen” or “three thousand two hundred and five.”

## Time-Savers

When passing formal traffic, do not add unnecessary words. Since the parts of the header are always sent in the same order, there is no need to identify each of them. The only exception is the word “number” at the beginning of the header. Here is an example of how not to read the header of a message on the air:

“Number two zero seven precedence, Priority handling instructions, HX Echo station of origin W1FN check one zero place of origin, Lebanon NH time one two zero zero EST date, January 4. Going to Mark Doe Red Cross Disaster Office Address figures one two three Main Street Rutland VT, ZIP figures zero five seven zero one. Telephone figures eight zero two five five five one two one two”

This example added many unneeded words to the message, including “station of origin,” “check,” “time,” “going to,” “address,” “ZIP,” and “telephone” and other block titles. If there is something about the message that deviates from the standard format, or if an inexperienced operator is copying the message without a preprinted form, then some additional description may be necessary, but in most cases it just wastes time. (The proword “figures” is used correctly, and “number” is always spoken before the message number.)

## Review

Formal messages are more likely to be delivered intact than oral comments. Using a standard format for formal messages makes it easier and faster for both sending and receiving stations to handle. Frequent practice with any formal message format is essential if you are to be able to use it accurately and quickly.

## Recommended Activities

1. Describe formal vs. informal messages.



2. Describe the components of a standard ICS 213.
3. Describe the components of a standard Radiogram.
4. Compose two complete ICS 213 formatted messages and two complete ARRL formatted Radiogram messages in written form. Use Handling Instructions and include the time and date sent. Also complete ICS 214.

Instructions for completing ICS 213 can be found at:

[www.fema.gov/media-library/assets/documents/33548](http://www.fema.gov/media-library/assets/documents/33548)

Instructions for completing the ARRL Radiogram can be found at:

[http://www.arrl.org/files/file/Intro%20to%20Emcomm%20Course/RADIOGRAM2011\\_Interactive.pdf](http://www.arrl.org/files/file/Intro%20to%20Emcomm%20Course/RADIOGRAM2011_Interactive.pdf)

