

# Scripts for Section Net Training Sessions

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## Checking in and out

“The check-in process should take as little time as possible. When you check in to this net, give only your FCC call, tactical call, and traffic status. For instance, you might say, ‘KB1CFL, State EOC, with traffic.’ Don’t say, ‘this is’ and un-key before giving your call, as this actually takes longer and doesn’t prevent any more ‘doubles’ than not doing it.

“The NCS will first ask for stations with Emergency traffic, then with Priority traffic, and finally for all other stations. Stations with Emergency traffic should break the net immediately, regardless of what else is going on – except when another Emergency message is already being passed.

“If you hear a station trying to check in that the NCS is obviously not hearing, you can offer to relay as soon as there is a break in the check-in process. To do this, simply say ‘relay.’ The NCS will respond either ‘go with the relay,’ or ‘relay, stand by.’

Stations who are checked in must ask permission to leave the net. This is important for several reasons. The NCS needs to know which resources he or she has available to move messages. Also, there may be messages pending for you or your local net. Finally, a station simply ‘missing’ from the net might be cause for concern under certain circumstances, and require someone to make a physical ‘welfare’ check of that station. ‘Permission to check out’ requests should only be made when other business is not being handled unless you have an urgent need to depart. If local conditions make it unsafe to check out - a gas leak, for instance - try to move to a safe location and re-contact Net Control to let them know what happened.”

## Net Efficiency

“One key goal of any working net is to be as efficient and effective as possible. During a communications emergency, getting messages to their destinations fast is essential. If the net’s throughput is slow, messages could start to pile up.

“There are several ways we can be more efficient.

1. Plan what you are going to say before transmitting. Don’t ‘think out loud.’
2. Be brief and to the point. Use the fewest words necessary to make your message clear. Don’t ramble – an emergency net isn’t a ‘rag-chew’ session.
3. Use your tactical call sign *all the time* – use your FCC call sign *ONLY* when it’s required by law – at the end of every exchange, or every ten minutes during long exchanges.
4. Move off the net frequency to pass messages, but be sure to check in again when you’re done.
5. Use standard prowords and phrases when handling messages, such as ‘say again all after.’ They save time and their meaning should be clear to everyone.
6. Read messages at writing speed. This helps reduce time-wasting fills and mistakes.
7. Use plain language – avoid jargon or codes.
8. Speak clearly and at a speed that matches signal conditions.”

## Identifying During an ARES Net

“During a net, we identify for two reasons:

- 1 – So that others in the net know your function, location, or assignment
- 2 – To comply with FCC rules.

“Since we want our nets to be as efficient as possible, we should only identify when absolutely necessary. Here are three simple rules:

- 1 – Call other stations using tactical calls only.
- 2 – Don’t identify in every transmission.
- 3 – End every exchange with your tactical *AND* FCC calls.

“We use tactical call signs for two reasons:

- 1 – It avoids confusion due to shift changes
- 2 – No one has to think ‘where is W1FN, and what is their function in this net?’

“Here is a typical exchange using tactical call signs:

‘State EOC to Net Control’

‘State EOC, go ahead’

‘I’ll be away from the radio for ten minutes. State EOC, KB1CFL out.’

‘Roger State EOC. Net control, W1ABC.’”

## Standard Prowords

“When passing messages, we use certain standard plain-English prowords and phrases that have very precise meanings to everyone. It’s very much like the reason we use the standard phonetic alphabet. Here are some common prowords:

Out – This means you are done with the exchange *AND* leaving the frequency.

Clear – This means that you are done transmitting, but will continue to monitor.

Over – This means ‘it’s your turn,’ but you should only use this when conditions or an inexperienced operator at the other end make it necessary.

Roger – message understood

“The next few prowords are used while sending Radiograms:

Say again – Repeat your last transmission

End – This indicates the end of a message, and is usually spoken after the signature.

Break – While reading a message, this is spoken between the address and the text.

I say again – This tells the other station that you are about to repeat something.

I spell – This lets the other station know you are about to spell out a tricky word.

Figures – This means that the next group will be all numerals

Initial – This means that a single letter is to follow.

Letter group – This means that several letters in a group will follow.

Mixed group – This means that a group of mixed letters and numerals will follow.

Correction – This tells the receiving station you are about to correct what you just said.

‘Say again all after;’ ‘say again between;’ and ‘say again all before’ – are used to tell the sending station exactly what you missed.”

“There are more prowords to learn, and you will find them on ARRL form FSD-220, which you can download from ARRL dot org or the New Hampshire ARES website forms page.”

### **The Local Net Liaison Station**

“One type of station in this net is the Local-to-Section Net Liaison. The job of this station is to move messages between the Section net and a local net. This requires that liaison stations be members of two different nets at the same time. There are two ways to do this.

1. You can monitor both nets at the same time. In most cases, this will mean one VHF local net, and the HF Section Net. Most stations have separate radios and can do this easily. It gets trickier if the Section Net is operating on a wide-area repeater or network.
2. If you can't monitor both nets at the same time, you will need to switch back and forth. This can require constantly checking in and out of both nets, which uses lots of net time. As an alternative, you can let both NCS operators know that you are going to automatically switch back and forth every five minutes. In this case, you would not check out, but you would still need to check back in to see if any new messages are waiting for you.

“Occasionally, the NCS will have you pass a message right on the net frequency. However, since this ties up the net for a while, you will probably be asked to move off to a different frequency to pass the message. Don't forget to check back in immediately when you are done so that the NCS knows the message was passed successfully and that you are available again.”

### **Asking for “Fills” When Passing a Message**

“Sometimes, you will miss part of a message due to interference or someone reading too fast. In this case, you will need to ask for a ‘fill.’ There are several ways to do this, but it's usually best to wait until the entire message has been sent before asking.

“If you need only a portion of the Radiogram form read again, you can tell the sending station precisely what you missed using one of three standard proword phrases.

- ‘All after’ tells the sending station where to start reading.
- ‘All between’ tells them which section you need to hear again.
- ‘All before’ tells them to repeat everything before that point.

“If you think you got it all, but aren't totally sure, you can ask them to ‘repeat the message at reading speed.’”

### **Two Common Message Sending Mistakes**

“The most common message sending mistake is reading too fast. Remember that the receiving station has to write or type the incoming message while you are talking. To make sure you read at the best speed, try tracing the letters in each word with a retracted pen as you go along.

“Another common mistake is not using standard procedures and prowords. This makes it difficult for the receiving station to know what to expect next, and can result in errors and unnecessary repeats. For instance, if you say ‘Figures,’ they will know that the number they hear next will be written as numerals, and not as a word. The proword ‘Break’ tells them that the next word they hear will go on the first text line, and not in the address.

“There are more prowords to learn, and you will find them on ARRL form FSD-220, which you can download from ARRL dot org or the New Hampshire ARES website forms page.”

### **Tactical Messages**

“Tactical messages are short informal messages that go from the originator directly to the final recipient. If the message will need to be relayed, or if delivery will be delayed, it must be written either on a Radiogram or ICS-213 Message Form.

“Messages with lots of details, multiple tricky words, or lists should never be sent as tactical messages.

“The exception is a simple single-sentence message that will be delivered locally within a few minutes. Even those should be jotted down on a message pad so they aren’t forgotten.

“Finally, it is perfectly okay to put two agency people on the radio together so that we aren’t acting as the “middle man” in the conversation. This avoids the issue entirely. Just make sure a licensed control operator is present at both stations. It’s also a good idea to move off the net frequency when doing this.”

### **Plain Language**

“Since 9-11, the movement toward using plain language instead of codes and jargon has picked up speed. For certain local, state, and federal agencies, the use of plain language is required by law. It helps avoid confusion and misunderstandings.

“The old police ten-codes are a good example. A code that means ‘I’m going to take a rest break’ in one jurisdiction might mean ‘Officer needs help’ in another.

“ARES isn’t directly covered by the law since we receive no federal funding. However, when we act on behalf of an agency, we should play by their rules as much as possible. This is especially true for messages or transmissions that are destined for agency personnel. Q signals and other Amateur jargon won’t mean much to them.

### **Keeping Logs**

“Each station in a net needs to keep one or more logs of station activity. The information you need to log will depend on your function in the net. In most cases, you will only need to log the messages you handle. The log information should include the message number, date and time sent, who sent it to you, and who you sent it to. Logging all incoming and outgoing messages makes it possible to track messages should it ever become necessary.

“Other information in your log might include times you checked in or out of a net, operator shift changes, and any other significant events, such as power outages or visits from key agency or ARES people.

“Logs can be kept on paper, or on a computer. The advantage of paper logs is that they will still be there if the power goes out or the computer dies. The disadvantages are that sloppy handwriting can result in errors, and the logs are difficult to share with other stations.

“If you are at an agency station, the logs may be considered legal documents. In this case, they should be kept in a hard-bound book with non-removable pages.”

### **The Backup NCS**

“All but the shortest nets should have a backup NCS, just in case the primary NCS’s equipment fails, or the operator needs to take a break. Shortly after opening the net, the NCS should appoint a backup NCS. This station should be chosen carefully to be sure they can hear and be heard, have NCS skills, and are not too busy to handle the duties. For a busy traffic net, it might be necessary to have a full-time standby NCS with no other regular net duties.

“The most important thing is that the alternate NCS needs to keep a duplicate net roster and traffic log so that he can take over the net’s operations without delay.

“Many NCS’s consider it good practice for any new NCS to do a quick roll-call of the net to be sure he’s not missing anyone.

“When the primary NCS returns to duty, the backup NCS will need to bring them up to date on the net’s activity while they were gone. This can take some time if the net gets busy, so NCS breaks should be timed during quiet periods if possible.”

### **Digital Message Coordination Procedures**

“If you need to pass a message via a digital mode or Winlink, NH-ARES procedures require that the receiving station be notified via the Section Traffic and Coordination Net whenever possible. This means that the digital station must either monitor the Section net or be in contact with the Section Net Liaison Station for their area.

“For Winlink messages, this helps avoid delivery delays when someone doesn’t check their mailbox frequently.

“For other digital modes, it’s important that both stations be on the same frequency, able to hear each other, and ready to go before the message is sent. This is especially true for PSK and other non-automatic, non-interactive modes. The procedure for doing this is similar to moving off the net frequency to pass a voice message.

### **Acceptable Message Forms**

“The Section communications plan calls for the use of two standard written message formats. One is the ARRL Radiogram, and the other is the ICS-213 Message Form with ARRL headers. Both are available for download on the NH-ARES website

“When relaying a message, be sure to keep it on the same form on which it was originated. Both forms are available on the NH-ARES website forms page, and every liaison station should have both digital and printed copies on hand.

“Local net stations should be advised by liaison stations to use the form most acceptable to the served agency. If they are handed an ICS-213, they have only to add the ARRL header before sending it.

“Specialized agency forms may be sent as well. A good example is the Seabrook Status Report, known as the 300B. If the form is to be relayed, an ARRL header should be attached. However, it may not be possible to use the check, since there is no standardized means of counting items on a complex form.”

### **Disaster Intelligence Reporting**

“In the past, reporting on the conditions around you was mostly done informally on an ‘as-needed’ basis. With the creation of the Skywarn program, this role became more common. Emergency management officials have since learned that ARES members can be useful observers and reporters. We use the term ‘disaster intelligence’ to reflect this aspect of our mission.

“Beginning in 2008, New Hampshire ARES has been tasked by the State EOC staff with providing ground-truth and other disaster intelligence information on a more regular basis. This was necessitated by the increase in severe storms. However, this does not mean that information requests will be limited to weather and storm damage. Other events may require different information.

“For most events, specific information requests will be generated at the State EOC and passed via the Section Net or email to local ARES leadership. Incoming messages will be routed via the Section Net for wide-area events, or directly to the State EOC during localized events if they are able to reach the local ARES net.

“The term SITREP, spelled S I T R E P, stands for ‘situation report.’ A SITREP is a generic term for any disaster intelligence reporting format. Served agencies may have formal SITREP formats, or they may be created ‘on the fly’ to meet a specific need during an event.”

“ARES members are discouraged from putting themselves in any danger in order to collect data. No information is so important as to risk life or limb.

### **Handling Interference**

“Sudden propagation failures and intentional jamming do occur from time to time. We have a multi-part plan for dealing with it.

“First, try to ignore intentional interference and keep working. Hopefully the interfering station will give up and leave us alone after a while. Never acknowledge the jammer in any way.

“If that doesn’t work, the NCS should move the net to a new frequency. The NCS should try to communicate the new frequency to the net while the jammer is transmitting so he doesn’t hear it. If this isn’t possible, the net should quietly move to another standard net frequency listed in the communications plan. For instance, if the net is on seventy-five meters, we could try to move to forty meters, our state-wide two meter simplex frequency, or to the K1JY network. Check each one until you find the net. Don’t forget to check above and below HF frequencies if the listed frequency is being used by others.”

**Listing Traffic**

“The NCS may ask you to list your traffic after you check in. This is not the time to begin sending your message. The information the NCS needs is the number of messages for each precedence, and the destinations. For instance, you might say, “I have three Priority messages for Concord, Nashua and Lebanon, and one Health and Welfare for Laconia.”

This information allows the NCS to begin planning how and when to move each piece of traffic. He or she will log them in, and as each one is assigned or passed, will mark it as completed.

**Service Messages**

A service message is sent by a handling station to let a message’s originator know what happened to the message they sent. There are two times when a service message should be sent.

First, when it is requested by the sending party, either as part of the HX handling instructions;  
Second, when a Priority or Emergency message cannot be delivered or will be delayed.

Service messages must have the same Precedence as the original message and be addressed to the originating station. They should be on a Radiogram form and handled like any other message.

When the service message is indicated in the HX instructions, be sure to provide all the information requested.

HXC requests the time and date of delivery.

HXD requests the time and date of delivery, who it was delivered to, and the time and date and callsign of any relaying stations.

HXG requests a service message if delivery has been cancelled due to delivery expense, but you will rarely see this used during an emergency.