

Newcomers and Elmers Net: Net Protocol for Emergency and Public Service Events (Most Material From ARRL EmComm book)

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Intro –

We have mentioned emergency and public serve events regularly on this net, and so I thought it would be useful to discuss how these nets are organized and used, both from the net control side and from the participants

For some this will be review, for others this will be something new. For all of us, it is good to hear how these nets are to operate because we may only participate a few times a year, and it is easy to forget protocol

Even experienced operators can make mistakes or fall into patterns of bad operating procedures we all need reminders

- in emergencies situations lives could depend on what we do
- This is also why we practice every time we get a chance and why every public service event is an opportunity to hone our skills

Purpose of the Net

The purpose of any net is to provide a means for orderly communication within a group of stations.

- An emergency net is a group of stations providing communication to one or more served agencies, or to the general public, in a communications emergency
- An emergency net may be formal or informal depending on the number of participants or the volume of messages

Net formats

Directed net -- in a directed net hey net control station organizes and controls all activity

- one station wishing to call or send a message to another in the net must first receive permission from the NCS.
- This is done so that messages with a higher priority will be handled first, and that all messages will be handled in an orderly fashion.
- Directed nets are the best format when there are large numbers of member stations.

Open net -- in an open Net the NCS is optional; stations may call each other directly.

- When an NCS is used at all he usually exerts minimal control over the net.
- The NCS may step in when the message volume increases for short periods or to solve problems and keep the net operating smoothly.

Open nets are most often used when there are only a few stations and little traffic.

Emergency nets may have different purposes and a given emergency may require one or more of each type of net.

- During a small operation all functions may be combined into one net.
- A traffic net handles formal written messages in a specified format. The Nets operated by the National Traffic System NTFS are an excellent example of traffic nets
- Tactical nets are used for real-time coordination of activities related to the emergency. This is a faster moving, often less formal operation. Messages are brief and often unwritten
- A resource or logistics net may be needed to acquire resources and volunteers and handle assignments
- It is usually a directed net accepting check-ins from arriving volunteers, who are then directed to contact an appropriate station or to proceed to a specific location.
- It might also be used to locate needed resources such as equipment, food, water, and other supplies.
- An information net is usually an open net used to collect or share information on a developing situation without overly restricting the use of the frequency for others.
- members send updated local information as needed and official bulletins from the served agency may be sent by the net control station.

Checking into an emergency net

There are two situations where you will need to check in to a net:

1) When you first join the net; 2) When you have messages questions or information to send

- To become part of a directed net, listen for the NCS to ask for check-ins and listen to any specific instructions, such as "check-ins with emergency traffic only".
- At the appropriate time give only your callsign. If you have a message to pass you can add "with traffic".
- If you have emergency traffic say "with emergency traffic."
- The same is true for stations with priority traffic. Wait for a response before offering more information.

Checking into a directed net when the NCS has not asked for check-ins is usually considered a bad practice.

- However if a long period passes with no request, you might wait for a pause in the net activity and briefly call the NCS like this:
"net control, AK3Q, with traffic"

If you are not part of the organization operating the net, do not just check-in and offer to assist.

-- Listen for a while. Be sure you have something specific to offer before checking in, such as the ability to deliver a message close to your location when none of the regular net members can.

-- If they really do seem to need help that you feel you can provide, you might check in briefly to ask if they have a resource that is in operation, then switch to that frequency.

-- If not make a brief offer of assistance to the NCS.

Checking out of an emergency net

Always let the NCS know when you are leaving the net even if it is only for a few minutes.

-- If the NCS believes you are still in the net they may become concerned about your unexplained absence.

-- This could result in someone being unnecessarily dispatched to check on your wellbeing.

There are three reasons for checking out of or leaving a net.

1) The location of your station is closing. If the NCS has given you directions to close the location, simply acknowledge the request, and sign with your tactical call sign, if you are using one, and your FCC call sign.

If the order has come from a local official, state that your location has been closed, along with the name and title of the official who ordered it, and sign off as before

-- long goodbyes only tied up the net needlessly and do not sound professional

2) Another reason to leave the net could be that you need a break and there is no relief operator. Tell the NCS that you will be away from the radio for a certain length of time, the reason and sign with your tactical call sign, if you are using one, and your FCC call sign.

3) Or you may leave because you have turned a location over to another operator. Tell the NCS that you have to turn the station over to give the new operators name and FCC call sign, and that you are leaving.

-- Sign with your tactical call sign, if you are using one, and your FCC call sign.

There are two special situations to be aware of:

1) If someone in authority asks you such as a law enforcement officer, to move your station, then move immediately and without argument. Notify the NCS of the situation at the first appropriate opportunity.

2) If you are requested by someone in authority to turn off your radio, or to refrain from transmitting, do so immediately and without question.

-- Do not notify net control until you have permission to transmit again, and can do so safely.

-- There is usually a good reason for such a request. It may be an issue of security, or it may be a potential hazard, such as an explosive device that could be triggered by RF energy

NCS

Think of the Net Control Station as a traffic cop

-- the NCS decides what happens in the net and when; He or she decides when stations will check in when traffic will be passed and how traffic will be handled

-- the NCS needs to be aware of everything going on around them and handle the needs of the net, its members, and the served agency as quickly and as efficiently as possible

-- The NCS should be located in a position to hear as many stations as possible to avoid time-consuming relays

-- The NCS is in charge of one specific that but is not responsible for an entire emcomm or public service operation; that is the job of the emergency coordinator or similar manager

-- It is not possible to be in command of all aspects of an emergency response and still run a net effectively since both jobs require 100% of your attention

Many groups open and close their nets with a standard script.

-- The text of the script lets listeners know the purpose and format of the net.

-- Using a standard script also ensures that the net will run in a similar format each time at operator regardless of who was acting as the net control station.

-- A backup net control station needs to be readily available should there be an equipment failure at the primary location or if the primary operator needs to take a break.

The second station at a different location maintains a duplicate log of everything happening during the net. Whenever possible and off-site backup net control station should be maintained even if an onsite backup is present.

-- This is especially important during an emergency where antennas can be damaged or power lost. Equipment can fail even during less demanding operations.

-- Even before you have had a chance to be a trained net control station an opportunity might arise for you to handle the job temporarily.

-- During an emergency anyone and everyone can be asked to take on new

and unfamiliar tasks in order to deal with a rapidly changing situation.

Some basic do's and don'ts

- Remember that although you are in control of the net you are not God.
- Treat members with respect and accept suggestions from other experienced members
- If you are taking over an existing net try to run it much as the previous net control station did
- Always follow a script if one is provided. Write your own if necessary but keep it short and to the point
- handle messages in order of precedence emergency-priority-welfare
- Speak clearly and in a normal tone of voice used good mike technique
- Make all instructions clear and concise using as few words as possible
- Keep notes as you go along do not let your log fall behind
- Write down which operators are at which locations. When one leaves or is replaced, update your notes
- Ask stations to pass messages off the main net frequency whenever possible

All the reading and studying in the world will not replace actual experience.

- You should look for opportunities to practice being the net control station operator well before an emergency occurs

When Communicating on a Public Service or Emergency Net

Each communication should consist of only the information necessary to get the message across clearly and accurately. Extraneous information can distract the recipient and lead to misinterpretation and confusion.

- If you are the message's author and can leave a word out without changing the meaning of a message leave it out.
- If the description of an item will not add to the understanding of the subject of the message leave it out.
- Make your transmissions sound crisp and professional like the police and fire radio dispatchers and the air traffic controllers. Do not editorialize or engage in chit chat.
- An emergency net is no place for "Hi Larry! Long time no hear"; "hey you know that radio you were telling me about last month" or any other non-essential conversation
- Be sure to say exactly what you mean; use specific words to ensure that your precise meaning is conveyed. Using non-specific language can lead to misunderstandings and confusion.
- Communicate one complete subject at a time. Mixing different subjects into one message can cause misunderstandings and confusion.

Common terminology

As hams we use a great deal of jargon and specialized terminology in our daily conversations.

- Most of us understand what each other means when we do and if we do not on occasion it usually makes little difference.
- In an emergency however the results can be much different. One misunderstood message could cause someone's life.
- Not everyone involved in an emergency communication situation understand our slang and technical jargon.
- Even terms used by hams vary from one region to another anon hands will have no knowledge of most of our terminology.
- Hams assisting from another region might understand certain jargon from differently very differently from local hands

For these reasons all messages and communications during an emergency should use common terminology otherwise known as "plain language".

- Q signals 10 codes and similar jargon should be avoided.
- The one exception to this is the list of standard pricing words often called "pro-signs" used in amateur traffic nets such as "clear", "say again all after", and so on
- To reduce requests to repeat words, use phonetics anytime a word has an unusual or difficult spelling or may be easily misunderstood.
- Do not spell common words unless the receiving station asks you to.
- In some cases they may ask for the phonetic spelling of a common word to clear up confusion over what has been received.
- Standard practice is to say first the word, then say "I spell" and then spell the word using phonetics. This lets the receiving station know you are about to spell the word they just heard.
- e.g. "give the information to Chester, I spell, Charlie hotel echo sierra tango echo romeo"

Correct Phonetics

Alpha Bravo Charlie Delta echo Foxtrot Golf Hotel India Juliet kilo Lima Mike November Oscar Papa Quebec Romeo Sierra Tango Uniform Victor Whiskey X-ray Yankee Zulu

Numbers are always pronounced individually the number 60 is spoken as 6-0 not 60; the number 509 is spoken as 5-0-9 and not as five hundred nine or five zero nine

Another area of confusion is with tactical call signs

- tactical call signs can identify the station's location or its purpose during an event regardless of who is operating the station.

- This is an important concept. The tactical callsign allows you to contact the station without knowing the FCC call sign of the operator.
- also it eliminates confusion at shift changes or at stations with multiple operators.
- Tactical call signs should be used for all emergency nets in public service events if there are more than just a few participants.
- If one does not already exist the net control station may assign the tactical call sign each location is opened.
- Tactical call signs will usually provide some information about the location or its purpose.
- It is often helpful if the tactical call signs have a meaning that matches the way in which the Served Agency identifies the location or function.

Some examples

"net" for net control station

"Springfield BOC" - for the city's emergency operations center

"Firebase 1" - for the first firebase established or a primary firebase

"Checkpoint 1" - for the first checkpoint in a public service event

Calling with tactical call signs

If you are at "Aid 3" in a directed net and you want to contact the net control station, you would say net "Aid 3", or in crisper nets and where the NCS is paying close attention, simply "Aid 3"

-- If you had emergency traffic you would say "Aid 3 emergency traffic" or for priority traffic, "Aid 3 priority traffic"

Notice how quickly you have conveyed all of the information necessary and have not used any extra words

-- If you have priority traffic for a specific location such as firebase 5, you would say Aid 3 priority traffic for firebase 5

-- This tells the NCS everything needed to correctly direct the message. If there is no other traffic holding the NCS will then call firebase 5 with "firebase 5, call Aid 3 for priority traffic".

Station identification

In addition to satisfying the FCC's rules, proper station identification is essential to promoting the efficient operation of a net.

-- The FCC requires that you identify at 10 minute intervals during a conversation and at the end of your last transmission.

-- this is one area that is often forgotten.

-- I say again, The FCC requires that you identify at 10 minute intervals during a conversation and at the end of your last transmission

-- it's easy to forget when you last identified; however, if you identify at the end of each transmission you will waste valuable time

-- What to do? The easiest way to be sure you fulfill the FCC station identification requirements during a net is to give your FCC call sign as you complete each exchange.

-- Most exchanges will be far shorter than 10 minutes. This serves two important functions:

- 1) It tells the MCS that you consider the exchange complete and therefore saves time and extra words and
- 2) it fulfills all FCC identification requirements.

After the message has been sent you would complete the call from Aid 3 by saying AK3Q

-- this will fulfill your station identification requirements and it tells the NCS that you believe the exchange to be complete

If the net control station believes the exchange is complete, and Aid 3 has forgotten to identify, then the NCS should say "Aid 3 do you have further traffic?"

-- At that point Aid 3 should either continue with the traffic or clear by identifying as above

For this method to work properly the NCS must allow each station the opportunity to identify at the close of an exchange.

Here are some things to avoid:

-- Thinking aloud on the air such as "ah let me see"; "hmm . . ."; "well you know if . . ."

-- On air arguments or criticism

-- Rambling commentaries

-- Shouting into your microphone

-- Cute phonetics

-- Identifying every time you key the mic or un-key the mic

-- Using 10 codes, Q signals on a phone mode, or anything other than plain language

-- Speaking without planning your message in advance

-- Talking just to pass the time