

Table Of Contents

(Click on the topic to advance to it)

[Filling in the Fills](#)

[Routing of Traffic](#)

[Sequence](#)

[Service Message](#)

[Respect](#)

[A Story for New Hams](#)

[Training Yourself](#)

[Undeliverable](#)

[Acting on Acronyms](#)

[Frequency of Choice](#)

Filling in the Fills

How do I ask for the parts I miss in a message? There are some common procedural words that make asking for fills really easy. The sender will hear them, repeat the request, and then send you what you need. Here are some good examples.

Word Before _____ (on CW – WB)
Word After _____ (on CW – WA)
All Before _____ (on CW – AB)
All After _____ (on CW – AA)
Between _____ and _____ (On CW – BN ... es ...)

or you can ask for a specific part of the message

“Say again the phone number.”
“Say again the message number”
“Say again the signature”

It works the same way with the ICS-213 format.

“Please repeat the “Subject.”
“Say again the 'To' name and 'Position.’”

When operators use the same terminology, it makes handling traffic a lot easier – especially under poor conditions. So use the standard procedural words to help the process. If you'd like a list, get a pink card from me or check out page 4 of FSD-218 on the ARRL web site [http://www.arrl.org/files/file/Public Service/fsd218.pdf](http://www.arrl.org/files/file/Public%20Service/fsd218.pdf)

Remember to follow the format. For an NTS message, it starts with the word “Number” then the message number, then the precedence, station of origin, and the check. Lately, we've heard messages start with the precedence or with the figures and with no check. We can do better. Thanks for all of your efforts to provide the service we do – and doing it exactly. 73 – K9LGU/ STM-WI

Routing of Traffic

Time for another reminder about the NTS. You have traffic for Ohio. Why not go right to an Ohio section net and see if there's an outlet? Fast, efficient, and easy, right? Maybe, but it could hurt. Here's what the ARRL has to say about Deviation from Normal Routing .

"Failure to use the normal routings, if carried to the extreme, will result in 'strangulation' of one or more NTS nets at region or area level. That is, if section nets send representatives to other section nets to clear traffic direct instead of through the region net, the region net will "starve" for traffic. Similarly, if region nets maintain liaison with each other directly instead of through the common medium of the area net, the latter will have little traffic and will not prosper. It is in the interest of efficiency, organization, system, training and conservation of skilled personnel to use the NTS structure as it is intended to be used. Let's not be ridiculous, however. Those who would follow the system to the letter are occasionally guilty only of unnecessarily delaying delivery.

"Any station in NTS, regardless of the function the operator performs, who receives a message destined to a point in his local calling area, should deliver that message rather than filter it further through the system. "

It would also be a good idea to exercise the system by generating some traffic. Please send at least one message per month and ask your friends and fellow club members, to do the same. It could be a pleasant greeting to someone else on a net. It might be a thanks for a QSO to someone you worked on another frequency. It could be standard seasonal greetings. Maybe a compliment to a good NCS is in order. One message per month isn't asking too much. We handle traffic for practice. Let's use the system.

This is also the season for severe weather. Although traffic handled on weather nets is not the format one usually sees on section nets as part of the National Traffic System, it is certainly important traffic -- and the usual rules apply. Get it right. Be clear and succinct. Follow the directions of the net control. Listen. Listen. Listen. It's a chance to apply the skills and discipline you have learned about traffic handling. For more information on the emergency management aspect of traffic handling check out http://wi-aresraces.org/info_traffic.shtml .

Sequence

What follows what and why does it matter? To make your communication vest even more attractive, you might add some sparkling trim and. . . Oh! (familiar sound of hand striking forehead) An alert reader has just informed me that sequins aren't quite the same as "sequence." *Sequence* is the order of things – and it becomes very important in passing a formal message efficiently.

Whether you're using NTS, ICS-213, or another format in the message you're sending, it's very helpful to the receiver to keep the parts in order. In the NTS preamble, that's number, precedence, handling instructions, station of origin, check, place of origin, time, and date. In ICS-213, the order is number (if you insert it), precedence, from station, place of origin, time, date, person to, position, person from, position, and subject (where one could insert the check). When elements of a message are sent in the proper sequence, the receiving operator knows what to expect and can anticipate. Especially under poor conditions, knowing what to listen for helps.

Think of a message as a contest exchange. If you know you're going to hear a number and a precedence, it limits the possibilities and allows you to focus specifically on the exact figures and letters. You can predict more accurately within a range. So a sender should start with the word "number" but then not label the rest of the parts in the preamble. Then the rest of the message follows the plan. That's the order of the day.

Even the text may have some order to it. For example, the text of your annual Field Day message to the SM or SEC would include the name of your group, your location, the number of participants, and the number of ARES/RACES members probably in that order.

Just as there's an order to a traffic net, a to-do list, or a construction project, there's an order to a formal message. Using the right sequence isn't really a tough, er, *order*. 73 – K9LGU/STM-WI

Service Message

FAQ # 203 You volunteered to take a message for someone in your area. Good for you. It will give you a chance to make a connection and show a positive feature of Ham Radio. But there's a problem. You are unable to deliver the message. Maybe the telephone number is out of service, the recipient doesn't answer, the addressee has moved, etc. Now what?

Of course you can try hand delivery to someone living nearby or even the U.S. Postal Service, if you want to donate a stamp to the cause, but handling instructions might show that's unnecessary. So what do you do?

In any case, it's appropriate to send a radiogram explaining the problem to the originating station. You respond to show the sender that we take traffic seriously and enjoy the practice it gives us. We want traffic originators to have faith in us, to know that we can be trusted to make an effort to deliver a message. So how do we format a "service" message?

The sender will need some information. Yes, you'll say the message was not delivered, but you need to be specific about which message, to whom, and why. You can set up your message as you normally would – message number, precedence, etc. If you choose to use an ARRL Numbered Radiogram text, ARL SIXTY SEVEN is a good start.

"YOUR MESSAGE NUMBER ____ UNDELIVERABLE BECAUSE OF _____ PLEASE ADVISE"

So the service message with ARL SIXTY SEVEN might look like this:

NR 277 R K9LGU ARL 8 FORT ATKINSON WI JUL 7
NAME / CALL OF SENDER
ADDRESS
PHONE IF KNOWN
ARL SIXTY SEVEN 88 W9IBL
SILENT KEY 73
K9LGU

A service message that doesn't include the specifics isn't too helpful. If the phone number is wrong, what was the number you received and is it disconnected, a FAX, or a wrong number? If you don't include the name or call of the addressee in your service message and the message number has been changed along the way, how will the sender know which message yours is about?

A service message without the ARRL text might be composed like this.

NR 278 R K9LGU 15 FORT ATKINSON WI JUL 7
NAME / CALL OF SENDER
ADDRESS
PHONE (IF KNOWN)
YOUR MESSAGE 89 TO KC9FYL
NOT DLVD X 920 563

1421 NOT IN SERVICE 73

K9LGU

The point is that it's a courtesy to respond to the sender and explain the problem with a message. This exercises the system. It helps to pinpoint difficulties. It's easy, and it's the proper thing to do. – 73 – K9LGU/STM

R-E-S-P-E-C-T

73. Best regards. Regards means respect. So how do you *pay your respects*? Er, maybe you don't have to wait until I'm a Silent Key. Imagine this. -- You have a message to send and an operator near the destination volunteers to take it. You are grateful, so you'll want to show your respect to the receiver by doing the following:

1. Let the receiver choose the frequency, check it, and tell you when he's ready.
2. Start by actually saying the word, "number" and giving the preamble without identifying or labeling the parts. Show you respect the receiver for knowing what's coming next.
3. Spell the name of the addressee phonetically. The street name will need spelling, too. Give the phone number in three groups.
4. Say "Break" and listen before starting the text. If you hear no response, continue.
5. Speak clearly and pace yourself so the receiver can transcribe the message by hand or keyboard. Spell phonetically any homonyms, uncommon, or confusing words. Respect any problems you can anticipate the receiver might have.
6. There's no need to stop mid-message to ask how the receiver is copying. You'll be asked at the "breaks" for any fills.
7. Don't use phrases like "today's date," "my station," or "common spelling."
8. Say "Break" and listen again at the end of the text. Then say and spell the signature – but you don't have to SAY that it's the signature. The receiver knows what's next. Respect that.
9. Be cheerful and patient giving fills – especially under bad conditions. If you're asked to say each group twice, say each group twice. You don't know what the receiver has to deal with in copying your message. Showing respect for the receiver reflects your gratitude and encourages more traffic handling.

So --- if you just keep trying to send messages with the receiver in mind, I can respect that.
73 – K9LGU/STM

A Story for New Hams

Once upon a time there was a new Ham who didn't know much about nets or traffic handling, but like all good operators, he was willing to learn. While he was explaining his hobby to his Aunt Gertrude, she asked him if he could send a message to her friend, Berta, on the west coast. Knowing how generous his aunt's birthday gifts had always been, and thinking about his depleted savings for a new HT, he immediately accepted the challenge and started his research.

On the Internet, he found some good advice on the arrl.org website and discovered there were section nets available he could hear. He found out how the nets worked, how to check in, and how to list traffic, but – alas – he had no HF capabilities. He recognized that overly long or coded messages weren't allowed. He learned more about NTS format, traffic net procedures, and started listening more intently to his local nets. He noticed who the traffic handlers were. He started asking questions on his local repeater and got some good advice from some seasoned Hams.

Our new Ham had Aunt Gertrude write a short message to her friend, listed it, and sent it to a local Ham on two meters. It was carried to a section net and put into the NTS where it was sent and delivered to a surprised Berta in San Jose. Of course, our Ham, his aunt, and her friend all lived happily ever after.

I know, I know. If it always worked that smoothly, that really would be a fairy tale. But the point is this. It *could* work that way. If we make ourselves available to new Hams and to anyone interested in this important aspect of our hobby, we can strengthen and build the NTS through exercise of what we do best – communicate. Don't keep it a secret. 73 –
K9LGU/STM-WI

Training Yourself

Do you need to get some training for traffic handling, net protocol, emergency operations, or any other aspect of our public service? There are sources.

The list of FEMA online courses is extensive at <https://training.fema.gov/is/crslist.aspx?all=true>. Wisconsin Emergency Management has classes, too. See upcoming courses and links to some videos at <https://www.trainingwisconsin.org/index.aspx?>.

Of course, you can do Internet searches on almost anything, and – as is always the case with the Internet – some sources are better than others. The ARRL <http://www.arrl.org/> website is a great place to start. Read the newly revised *Public Service Communications Manual 's Methods and Practices Guidelines* - <http://www.arrl.org/appendix-b-nts-methods-and-practices-guidelines>. Try the hints on the Wisconsin Section page. Or look at the Wisconsin ARES/RACES web page and check out the training materials there http://www.wi-aresraces.org/info_traffic.shtml. You'll find over 100 individual essays on traffic, nets, and operating techniques there.

If you have a specific question, ask on a section or local net, ask a local traffic handler or contact your Section Traffic Manager. If they don't know, they'll find out for you. You might also see operating aid FSD-218 at [http://www.arrl.org/files/file/Public Service/fsd218.pdf](http://www.arrl.org/files/file/Public%20Service/fsd218.pdf) if you don't have the famous pink card.

Listening to our section nets can teach you a lot. You might notice which protocol is the most efficient and which parts of the operation tend to slow things. You'll note the order of things, who calls whom, and how to list available traffic. On our section nets, you'll hear some excellent net controls to emulate.

Participate in section or local nets, public service events, practice exercises, and activities. Use the experience of seasoned operators to build your own sense of what works well.

You are your own best teacher. You know what you need to know, how important it is to you, how best to remember it, and how to apply what you learn. Your sources can help, but the learning is up to you. And we do it because it makes us a better service. 73 – K9LGU/STM – WI.

Undeliverable

What happens when traffic is not deliverable? Unlike the Postal Service, undelivered traffic doesn't go to a Dead Traffic Office. What happens to it depends on a few variables. Here are some cases to consider.

If a message is pending in our section – whether it came from someone in our state, in another section, or across the ocean – it requires some action. It's why we check in to traffic nets. There's a reason the message is there in the first place. Someone thought it was important enough to send – even if it was to keep the NTS working smoothly. So we respect that and make every attempt to handle it properly. We should make every effort to deliver it accurately and in a timely manner. It's what we do.

We trust that stations who attend traffic nets do so at least partly because they understand the importance of having such nets and keeping them working efficiently. We know it's training so we can help agencies in need. We still believe the NTS is a valuable system and service provided by our hobby. True, we do not have Hams from every community on our section nets – but we should at least have someone in the general area. Routine messages can be accepted, held, and delivered via a local net later in the week. It's still good practice.

Messages can be called in to a neighboring community – even if there's no Ham close to the recipient. That last-mile routing doesn't have to be actually within the last mile. Many telephone services these days offer area calls at no extra charge. Many deliveries lead to very interesting conversations and grateful receivers. Messages can be mailed with an explanation and an invitation to the receiver to find out more about Ham Radio or the NTS. Even an email delivery with confirmation is better than none.

So what happens if there's no outlet at all on the net where you've listed a message repeatedly? You have options. You can give the messages to someone else to take to a different section net. That works well if you know there's a station from near the destination who checks a later net. You can offer it to a local net where someone might have connections (daily schedules, ragchew nets, weather net) to the recipient's area. Of course, you can deliver it yourself by phone, mail, or in person.

As a last resort, after a reasonable effort, you can send a service message back to the originating station including the reason you were unable to deliver the traffic. If it's a non-working phone number, include the number. If there's no answer after many tries, tell that to the sender. If there's an address problem, include the address as you received it.

We take this public service aspect of our hobby seriously. We want to do a good job and keep our message-handling skills sharp. We have an excellent contingent of traffic stations on our nets, but a few good operators can't do it all. They need help. Please make an effort to deliver any traffic you may receive, and encourage others, specially new Hams, to participate as well. You'll enhance the image of the hobby, and you'll get sharper skills and personal satisfaction from a job well done. Have a great holiday season. Send some traffic.
73 – K9LGU/STM-WI

Acting on Acronyms

What about abbreviations? To save time, Hams often make use of abbreviated forms. Of course, there are the standard abbreviations in electronics, E, I, R, P, Hz, etc., and when using Morse code (CUL, BCNU, AGN, TU) but the traffic part of the hobby makes use of some acronyms as well. They're more evident on the CW (there's a good one) nets, but their equivalent can be a shortened phrase on (SSB, FM or AM) as well.

We know that a Net Manager (NM) appoints each Net Control Station (NCS) of a section net (like the BEN or WSBN), and the NCS checks in a station coming or going to the Ninth Region Net (9RN REP) or Central Area Net (CAN), as well as a representative of the Wisconsin Intrastate Net (WIN) in the evening. The WIN, by the way, comes in two flavors -- WIN/E (the early session at 7 P.M. when traffic is forwarded to early 9RN) and WIN/L (at 10 P.M. when the late 9RN traffic comes in). See how handy those abbreviations are?

While handling traffic, some common prosigns - and their voice equivalents - are

AA - All After (Please send all of the text after. . .)

AB - All Before (Send all of the text before. . .)

ARL - used in the check to show there's an ARRL numbered radiogram in the text

BK - Break (a pause for a quick check on phone or separation between address and text, text and signature)

CFM - Confirm (Did I get this right?)

CK - Check (It's the number of words in the text)

N - Negative -- or no more messages to follow (None)

R - Roger -- or a decimal point in CW

[This creates a little confusion when messages are numbered with a decimal point, since it gets mixed up with the precedence (usually Routine). So Message number 3.2 Routine on CW starts "NR 3 R 2 R ." An operator needs to be a lert - - but then, the world needs more lerts.]

And don't forget these when you need a fill.

WA - Word After

WB - Word Before

Abbreviations and standard terms, just like net procedures, help our efficiency because we all agree on what they mean. GL and BCNU on the NTS. --- 73 K9LGU / STM

Frequency of choice

Who calls first? With apologies to Bud Abbot and Lou Costello, it's a good question. When the net control sends stations off frequency to pass traffic, the receiving station chooses the exact frequency and calls first. The receiver knows if it's a good spot or if there's a problem such as a TV birdie or splatter from a nearby station. The sender may not be aware of interference, and the receiver is the one who needs good copy to get the message exactly right.

Since nobody owns a frequency, the receiver asks if the frequency is in use, listens, and, if it's available, then calls the sender. If problems arise later, the receiver can always ask the sender to shift frequency. Some have had good luck just going from lower to upper side band. Others have to change bands. Sometimes, they have to go to a digital mode. It's always the receiver's call.

Using VOX, QSK, or inserting pauses to listen will allow the receiving operator a chance to break in to ask for clarification or to stop the whole process if copy isn't possible or if it's a duplicate message. The more we practice good procedures such as numbering correctly, actually saying the word "number" to start, listening carefully, and knowing who calls first, the more efficient we can be. And that's what we aim to do. Now, if anyone asks how to be even better at traffic handling, you don't have to say, "I Don't Know." (By the way, he's third base.) 73 – K9LGU/STM - WI