

## **Objectives**

**In this lesson the student will be able to:**

- **Understand the sending speed of the message**
- **Describe the use of Break vs. Pause**
- **Understand when to pause for interruptions**
- **Understand when to use phonetics**
- **Use Prowords**
- **Use Introductory Words**
- **Use Misc. Words**

**Notes:**

## Lesson 2 – Sending & Receiving Traffic

### Transmitting a Message

#### Introduction

On voice we are faced with a quite different situation. We must say words to ensure correct copy, and are forced to deal with language perceptions. The tools and rules presented here tend to minimize the variability caused by those perceptions and lead to accurate message transmission. With a little practice they will become second nature.

#### Transmit speed

The transmitting operator must send clearly and at a speed which will allow the receiving operator to copy perfectly without rushing. Transmit, do not “read,” the message. This is one of the hardest skills in traffic handling to master. Use pauses to frame groups clearly. Assume the receiving operator is copying with pencil and paper unless advised otherwise.

A useful trick to overcome the natural tendency to speak too rapidly is to say a group or phrase, pause, spell it to yourself as though you were writing it, and continue when you visualize that the receiving operator is also finished. It always takes less time to send a message correctly the first time than it takes to negotiate repeats and fills of missing or uncertain parts. The importance of clearly spaced group sending can not be overemphasized. It is crucial to correct message copy.

**Notes:**

Two stations passing traffic on voice seldom have the luxury of duplex operation like they have on the telephone. They must work together using the skills that come from proper training and experience to know what each other is doing without the direct feedback a primary purpose of uniform protocols.

Send a message to someone while watching the copy process. You can see when you are sending too rapidly or too slowly. The motion of a hand, or a facial expression, can alert you to when to stop, or when something is confusing. The art of “transmitting” a message is knowing when you are doing it right, and knowing the other person is following along in step, when you are transmitting in the blind.

Slow down; pretend that you are writing the message too. This is very important, as the receiving station must have time to write down what you are saying. There can be several obstacles that the receive station may be going through, i.e., broken pencil, pen running out of ink, The cat jumping up on table, or even their SO is calling them to dinner.

This takes practice, so if the receiving station asks you to slow down, do not be offended, it happens to all of us.

A good idea is to unkey every once in a while, so that the receiving station can break you. I found that when speaking the text of the message that a short pause after every five words gives the receiving station a chance to break in. The use of VOX is another good idea; this will unkey the radio for you and allow you to listen for a “break”

**Notes:**

When using repeaters, it may be unreasonable to unkey every five words, it would be better for you to use a "Break"; this gives the receiving station a chance to ask for fills.

## Break or Pause

NTS uses a Pause before the Address is spoken and a Break before and after the text. During poor band conditions it may be better for the receiving station, that a "Break" is added before the addressee instead of a Pause. This will allow for fills in the preamble.

Pauses are crucially important tools in voicing messages. Pauses exist between words/letters, groups (essential for clarity and separation), at the end of the Preamble, after each line of an address, the mandatory listening pause after the first Break, and even after every five lines of Text. Additionally, pauses may be used to listen for interruptions throughout the message transmission to improve efficiency.

When a Pause or Break is used, be sure that you wait long enough for the receive station to answer you. It is not required that they answer you, the Pause or Break gives them a chance to ask for fills. During an Emergency situation the transfer of the traffic is extremely important so the use of "Break" may be better than using a pause.

**Notes:**



A clear group pause will distinguish between “SPRINGDALE” and “SPRING” “DALE” easily. Pauses are essential to allow copying time for the receiving operator also longer pauses after longer groups, especially after the city in the Preamble or Address.

The receiving operator hears such pauses. They are clues to what is coming next in addition to aiding in correct group copying. Use pauses, they're free.

### Pausing for Interruptions

It is useful when sending messages to use fast VOX or release the PTT after every group or phrase transmitted to permit interruptions by the receiving station.

On FM repeaters, or where this is not practical, the release to listen after the first “break” at the start of the text, and after the “break” separating variable parts of a book, is considered mandatory to listen for interruptions.

The receiving station is not obligated to say anything at these customary listening pauses on HF and fast VOX operation. If the receiving operator says “go ahead” during these breaks, you have probably paused too long. Conversely, if the receiving station needs to interrupt at these points it should be ready to transmit immediately upon hearing the “break” so as to catch the transmitting station before transmission resumes.

**Notes:**

Caution should be used on FM repeaters with audio delay systems or multi-site key-up delays. On these systems you must key the transmitter and wait for up to a second or two before your audio will be available to the receiving station. Groups may be cut off at the beginning. This also makes listening between groups cumbersome and risks cutting off important information.

Use the customary listening break points instead, allowing sufficient time to prevent repeater delays from causing missed message groups by “doubling.”

#### No extraneous Words

Prowords, Introductory Words, and Operational Words are set aside for special purposes and are recognized by traffic handlers. Any other words used are likely to cause confusion or be written down by the receiving operator. Words such as “today's date,” “BACK STOP that's two words,” “BLACK as in night,” etc., are considered more than bad practice. Do not say any extraneous words like “check,” “with a check of,” “city of origin,” “to,” “going to,” “street address,” “break for text,” “break for signature,” “signature,” etc.

Q-Signals used operationally on voice are extraneous words. “Common spelling” should be avoided; spellings many consider “common” may not be common to everyone. Do not say “same as...” for parts of the message, implying a group is the same as in a previous message. It is usually disruptive to copy or organization. Book if required. Saying “today's date” for the preamble date is considered poor practice as well.

**Notes:**

Mandatory use  
Of phonetics

**Preamble:** Group introductions are not required in the Preamble, but all groups that would be eligible to be introduced are still voiced as such. Only the introducer is omitted. These rules apply throughout the message.

Introduced Groups:

All characters in introduced groups are voiced one character at a time

All letters in introduced groups are voiced with phonetics: Initial, Initials (letter groups, 2 or more letters forming the group);

- Initial "X" used as a period, "Initial X-RAY"
- Mixed group letters; "mixed group figure SIX PAPA MIKE" (6PM)
- Amateur call sign letters; "amateur call WHISKEY ONE ALPHA WHISKEY"
- Handling instruction letters, "HOTEL X-RAY CHARLIE."

Always spell these groups and use phonetics:

- Last names of addressee in address, and in Op Note
- Proper names in text
- Last names in signature and Op Note
- ARL Radiogram numbers spelled out in texts; (ARL FIFTY and SIXTY sound very much alike even letter-spelled!)
- Fills, as requested;

**Notes:**

Finished sending  
The message

The Proword “END” signals the end of groups to be copied, in other words, the end of the written message.

If the sending station have more messages to send to the receiving station then after the “END” proword the number of messages left is also sent, i.e.

“END, two more, OVER”

If the sending station has sent all the messages to the receiving station; then the words “No More” is spoken after the Proword END, i.e.

“END, no more, OVER”

Prowords

**NUMBER** – This starts the message copy. It tells the operator to copy everything after hearing the word “Number.”

**END** – “End” is a shortened form of “END OF MESSAGE” and is used to make the short and formal end of copy although the later is still used by operators from time to time

**BREAK** – I hereby indicate the separation of the text from other portions of the message

**I SAY AGAIN** – I am repeating transmission or portion indicated

**I SPELL** – I spell the next word phonetically

**OVER** – Indicates the end of your transmission and signals the receiving station to go ahead

**Notes:**



## Introductory Words

**FIGURE(S)** – Numeral(s) or number(s) follow

**MIXED GROUP** – Used to introduce a group consisting of a mix of 2 or more of the 3 types of characters permitted in a group; letters, figures, or slashes (/), not beginning with figure(s)

**MIXED GROUP FIGURE(S)** – Used to introduce a mixed group as above when the first character is number(s)

**LETTER GROUP** – Used to introduce a group of 2 or more letters, as in an abbreviation or an unpronounceable group

**TELEPHONE FIGURES** – Used to introduce the telephone numbers in an address or signature when no zip code is present

**INITIAL** – Used to introduce a single letter initial, phonetic pronunciation mandatory, as in the initial in a proper name

**AMATEUR CALL** – Used to introduce an amateur call sign in the Address, Text, or Signature, but not in the Preamble

## Receiving a Message

Transcribe the  
Message without  
Modification

No part of the message may be altered, even when it appears necessary, except for appending corrections to the check value. If part of a message appears to be in error, confirm the part with the sending station. If it is correctly received, leave it alone. Op Notes may be used to pass words to the next operator regarding problems or even suspected errors. This is risky business, however, and very easily a situation in which one can insert one's foot in one's mouth. You never really know what the message originator had in mind.

**Notes:**

Be sure of every  
Group received

Do not assume that you have copied a group correctly. If you miss part of a group avoid guessing about the missing part. Check each group to see that it fits the context and makes sense. If the sending speed is too fast, ask for reduced speed. If interference is present, ask for a shift in frequency if possible. Ask for a repeat or confirmation if you have any doubt. Only you know for sure that you have copied every group with certainty.

Do not acknowledge the message until you are certain you have it copied it completely and accurately. Take the time!

Ask for fills  
Or confirmation

If interference or static is present, or you make a mistake copying, mark the groups or parts of words which might be in error. If the sending station is "listening between groups" interrupt with the group or segment. The sender will repeat. Otherwise, mark the groups you are not sure about as you go along. You can ask for "fills" formally after the "break" at the start of the text or at the end of the message. Read the message to check for questionable context.

Ask for "fills" or confirmation until you are certain that you have the entire message correctly copied. Do not be afraid to ask or worry about taking the extra time. Other operators will respect your care.

The benefit of being able to interrupt the moment you have a receiving doubt is obvious. You get to fix things as you go along, thus saving formal fill requests later and valuable time.

**Notes:**

Acknowledge the message only after this process is completed. Do not worry about taking the extra time. Other operators will respect your care.

Accept only  
Messages you  
Can relay or deliver

Try to accept only those messages you can forward or deliver in a timely fashion. Sometimes you may be asked to do otherwise as a liaison station or for “store and forward.”

If you accept a message, and are unable to pass it on promptly, try to find another station to accept it and keep it moving. There are many ways to move a message along. Phone a fellow amateur to take custody if you can not handle it properly. Mailing, personal delivery, telephoning neighbors of the addressee, etc., are alternative methods to direct telephone delivery

Copied the message

The receiving station asks for fills if required, then says “ROGER” and “call sign” to complete the exchange.

“ROGER MESSAGE(S)” and “MESSAGE(S) RECEIVED” are still in use by some operators, but ROGER implies all messages received and is sufficient, and efficient.

If there are more messages for you to copy, then speak “ROGER, Ready next, OVER”, this will let the sending station know you copied the message and are ready for the next one.

Saying such phrases as “YOUR MESSAGE NUMBER (#) RECEIVED,” or “ROGER YOUR MESSAGE (#),” or “QSL MESSAGE,” etc., is considered poor practice.

**Notes:**

## Prowords

**WORD AFTER** – Request a word after the last know good copy

**WORD BEFORE** – Request a word before the last know good copy

**ALL AFTER** – Request a group of words after the last know good copy

**ALL BEFORE** – Request a group of words before the last know good copy

**BETWEEN** – Request a word or group of words between last know good copy

**CONFIRM** – Request Confirmation of group or groups of words, if correctly copied, the sending station will send “confirm”, otherwise they will send “Negative” followed by the correct group or groups of words

**ROGER** – Receiving station acknowledgment of message(s) copied. It is not necessary to repeat message number(s) or other parts. “MESSAGE(s) RECEIVED,” “BOOK OF (#) RECEIVED,” are in wide use

For the sake of brevity and efficiency, Roger is the preferred method. Roger, meaning received-understood, implies all messages were received.

**Roger means “received and understood.” It does not mean “yes” or “affirmative.”**

**Notes:**



Misc. Words

**AFFIRMATIVE** – Yes

**CHARLIE** – Yes

**NEGATIVE** – No

**OVER** – End of transmission, invitation to transmit

**GO AHEAD** – Continue. Used after requesting fills after interruptions to signal the sending operator to continue. Also used as an equivalent to Over

**73** – Best regards (plural!). 73's is redundant