The National Traffic System (NTS) Primer

The ARRL National Traffic System (NTS) is a well-organized system for routing formal written message traffic (*radiograms*) from any point in the United States to any other. Messages are relayed from one ham to the next, using a variety of *modes* such as voice, Morse code, radio teletype, or other digital radio modes. The NTS has it origins in the earliest days of radio as is indicated by the name, "American Radio Relay League" itself.

In times of emergency, radiograms may be used to communicate information critical to saving lives or property or to inquire or learn about the health or welfare of a disaster victim. During these times, NTS works in concert with the Amateur Radio Emergency Service (ARES) and other emergency and disaster relief organizations.

However, the NTS does not operate only during disasters. It operates day in and out 7 days a week, 365 days a year and is used by thousands of people, hams *and* non-hams alike, to send and receive brief greeting messages (happy birthday, congratulations on the arrival of a new baby, hope you feel better, etc.) as long as they are of a personal, non-commercial nature (as defined in the FCC rules).

Subject to international treaties governing "third party" messages, many foreign countries also allow their hams to exchange radiograms with US hams.

NETS:

The United States and Canada are divide into three Traffic Areas , Pacific, Central and Eastern. Each of these areas have daily nets that meet four times a day. The Pacific Area Net meets on 14.345 MHz. at 1030 and 1430. Also on 3652 kHz. and 7032 kHz. at 2030.

The Traffic Areas are broken into 12 Regions. Washington is part of the 7th Region which has 4 nets that meet at 0945*, 1515*, 1930* and 2130* on 7235 kHz. with an alternate of 3925 kHz. for the first two sessions and 3560 kHz with an alternate of 7048 kHz. for the last two sessions. Region 7 includes the

states of Alaska, Idaho, Montana, Oregon and Washington. And the Canadian Provinces of Alberta and British Columbia.

Within Washington State there are several nets that meet each and every day. The first of these traffic nets is the Noon Time Net, but don't let the name fool you, it opens for traffic at 0930* every day. They meet on the frequency of 7268.5 kHz. with an alternate of 7283.5 kHz. There is a 75 meter version of this net that begins at 1145* for those who can't make the 40 meter net.

There is the Trans Continental Corps (TCC), a group of dedicated amateurs, transfers messages across the North American Continent. The TCC is not a net but a group of designated stations who have the responsibility for seeing that inter-area traffic reaches its destination. Click on the link for more information the TCC.

*-All times are local Pacific Time.

Then, for those in the Puget Sound area, the Puget Sound Traffic System Net that meets at 1730* on 146.820 MHz. (103.5). These local VHF nets provide an outlet for traffic originated by hams who do not have HF privileges and allows them an opportunity to practice handling formal, written traffic on almost a daily basis.

Then there is the is the Beaver State Net on 3920 kHz at 1745*, even though its in Oregon they service Washington too. Then the Washington State Amateur Radio Traffic System (WARTS, as it's better known) on 3975 kHz. at 1800. This is followed closely by the Northwest Single Sideband Net on 3945 kHz at 1830*. And the second session of the Oregon Emergency Net , another Oregon net, at 1900 on 3985 kHz. There is a first session at 1800 on the same frequency. And finally the Columbia Basin Net (The CBN) on 3960 kHz. at 1900*.

For the CW operators there are RN7 nets that meets at 1930* and 2120 on 3565 kHz (alt. 7048 kHz.) and the Washington Sate Net (WSN) that meets at 0730*, 1845*, and 2145* on3563 kHz. (alt. 7038 and 1818 kHz.). All of these nets meet daily for the purpose of handling traffic. For slow-speed CW operators, there is the West Coast Net (WCN) on 3540 kHz. at 1900*.

These nets are here for the purpose of handling formal message traffic and to get your messages into the NTS system.

Non-hams wishing to avail themselves of the NTS are encouraged to contact a local ham friend or neighbor. There's no charge to send a radiogram. It's one of the ways ham radio serves the public interest. (In case you are wondering, sending grandma a birthday greeting provides ham *traffic handlers* with practice for emergency communications. And, it's fun!)

More information about the NTS can be found in the ARRL Public Service Communications Manual.

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Formal Radiogram Traffic Format

Below is a sample of the radiogram form and all the information that you may need to process a formal written messages via the National Traffic System. These items are all spelled out in the ARRL FSD-218

Parts of a formatted message:

1. Preamble:

1. Message Number
2. Precedence
3. Handling Instructions*
4. Station of Origin
5. Check
6. Place of Origin
7. Time Filed*
8. Date Filed

2. Addressee:

1. Full name (If Ham operator - call sign)
2. Street Address - House number and street
3. City, State/Province, and Zip/Postal Code
4. Telephone number with area code

4. First Break

5. Body of the message

Should not exceed twenty-five (25) words (see check) by convention.

6. Second Break

7. Signature - Of the party originating the message. Should contain address and phone number of the sender if reply requested.

* ***These are optional on Routine message but required on all others.***

A Routine NTS Radiogram

(Preamble:)

Msg. #	Precedence:	Handling Instructions	Station of Origin	Check**	Place of Origin	Time Filed* (Local or Zulu)	Date Filed
1	R	HX_ * G	W7ARC	25	Lynnwood, WA		Today's Date

(Addressee:)

TO: Full Name: John Smith

Street Address: 123 Main St.

City: Seattle State/Province: WA Zip/Postal Code: 98802

Phone Number: 206 312 2223

BT (Break)

(Body of the message:)

THIS	IS	THE	BODY	OF
THE	MESSAGE	X (see Punctuation)	IT	SHOULD
NOT	CONTAIN	MORE	THAN	TWENTY
FIVE	WORDS	X (see Punctuation)	INCLUDING	NUMBERS
PUNCTUATION	AND	MIXED	GROUPS	73

BT (Break)
(Signature:) Jane Smith
Name of person sending the message. Include the address and phone number if reply requested.

Twenty five (25) words is not a rule but rather a "benchmark" so the messages can be as concise as possible. - It's not a letter...or a book.

Instructions for preamble:

MSG #:	The number the originating station issues to the message. This number is NEVER changed by any station handling the message.
PRECEDENCE:	***Emergency*** (**always spelled out**) - Any message that has life and death urgency to any person or groups of persons. ***(P)***riority - Important messages having a specific time limit. ***(W)***elfare - A message that is an inquiry into the well-being of an individual in a disaster area. ***(R)***outine - Normal traffic during normal times.
***HX:** = Handling Instructions. (Optional for Routine messages.)	***HXA*** - (Followed by number) Collect landline delivery authorized by addressee within ____ miles. (If no number, authorization is unlimited.) ***HXB*** - (Followed by number) Cancel message if not delivered within ____ hours of filing time; service originating station. ***HXC*** - Report date and time of delivery (TOD) to originating station. ***HXD*** - Report to originating station the identity of station from which received, plus date and time. Report identity of station to which relayed, plus date and time, or if delivered, report date, time and method of delivery. ***HXE*** - Delivering station get reply. from addressee, originate message back. ***HXF*** - (Followed by number) Hold delivery until _____. (date) ***HXG*** - Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and

	service originating station.
STATION OF ORIGIN:	The station originating the formal traffic (Call Sign).
****CHECK:**	The number of words, punctuation, mixed groups or numbers in the body of the message; between Break and Break. (In an effort to minimize the amount of words in the text you can use ARRL Numbered Radiograms. If ARRL Numbered Radiograms are used in the text add ARL to the check.)
PLACE OF ORIGIN:	The location of the party originating the traffic. Need not be the same location as the station of origin.
***TIME FILED:**	Zulu or local time message was filed. (Not necessary in Routine messages) If using Zulu time you *MUST* use the Zulu date also.
DATE FILED:	Date the message was put into the NTS for transmittal to a relay or delivering station. (Always needed)

All of this information is available on the ARRL FSD-218.

CW Procedures:

The pro-sign AA separates the parts of the address. BT separates the address from the text and the text from the signature. AR marks the end of the message: this is followed by B if there is another message to follow, by N if this is the last or only message. It is customary to copy the preamble, parts of the address, text and signature on separate lines.

Phone Procedures:

Use pro-words instead of pro-signs, but it is not necessary to name each part of the message as you send it. For example a message sent on phone (by voice) would be as follows:
"Number one routine HX Golf W7ARC ARL12 Silverdale Washington one eight three zero Zulu March seventeen Donald Smith Figures one six four zero East Sixth Avenue, Bremerton, Washington niner eight three one one Telephone figures three six zero three one three five eight six seven Break ARL FIFTY ARL FORTY SIX HOPE TO SEE YOU SOON (X-ray) LOVE BREAK Mom and Dad End of Message - Over." If more than one message is

to be sent to the same receiving station the words "More to follow" would replace "Over" until the last message is sent.

It is important to speak clearly and distinctly over phone. It is also important to spell phonetically words that sound alike or may have several forms of spelling; i.e. to, too, two, etc. It is also important to spell words whose meaning may not be clear. Use the pro-words, "I SPELL" before each of these instances. For example - "you're". Say the word "you're." Say "I spell," and proceed with "YANKEE OSCAR UNIFORM APOSTROPHE ROMEO ECHO." Then say the word again, "you're". This will avoid confusion with your, you're or yore in the message.

Punctuation:

In an effort to keep things as simple as possible the NTS has adopted the following standards for punctuation in a formal radiogram:
Period = X-Ray
Question Mark = Query

As these are the most common punctuations and could be easily misconstrued as something else ALL periods in a message are expressed as an "X" (spoken "X-ray") and all question marks are spoken as the word "query" at the end of the sentence. Other punctuation is permitted but in an effort to keep the check to a minimum they are discouraged.

To shorten messages that are longer than 25 words you may want to use one or more of the ARRL Numbered Radiogram Messages. These can be found on the FSD-3 and every ham should have a copy of this document in their station for reference when delivering a message that contains and ARRL Numbered message.

If you have any questions or wish more information, please email me at w7arc@arrl.net or catch me on one of the Region or Section Nets.