Amateur Radio Messaging ARRL and RRI in Oregon

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National Traffic Network (NTN)
An Introduction

Acknowledgement of originators of this series:

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2012

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National Traffic Network (NTN) Messaging Basics

Basis

NTS* Methods and Practices Guidelines
*Trade mark of the ARRL.

Outline

- What is the National Traffic Network?
- Advantages of NTN Messaging
- NTN Hierarchy and modes
- The ARRL Radiogram Form
- ARL Abbreviated Texts
- How to Deliver an NTN Message
- Record Keeping and Reports
- Additional Resources

What is the National Traffic Network (NTN)?

- The National Network of operators at the AREA and REGION levels previously administered by the ARRL as the NTS, now coordinated and operated by R.R.I. since 2016.

- Section (state) and Local nets still serviced by the ARRL for nets reporting their activities to the SM/STM.

- Started in 1915 as the formal ARRL system to relay messages around the country.

- Transmit & Receive Modes: Voice, CW, Digital

- Requirements to join: <u>Any</u> <u>level</u> Ham license & interest

- ARRL Field Organization Appointments at Section level: Official Relay Station (ORS), Digital Relay Station (DRS) & Section Traffic Manager (STM).

Advantages of NTN Messaging

- Wireless! Send them from anywhere.
- Use a little HT or a big base station
- Standard Format (ARRL/RRI MPG)
- Accountability
- ARRL/RRI Nets meet daily
- Speed (digipeater vs. email - or - RF vs. Google)
- *When all else fails…*
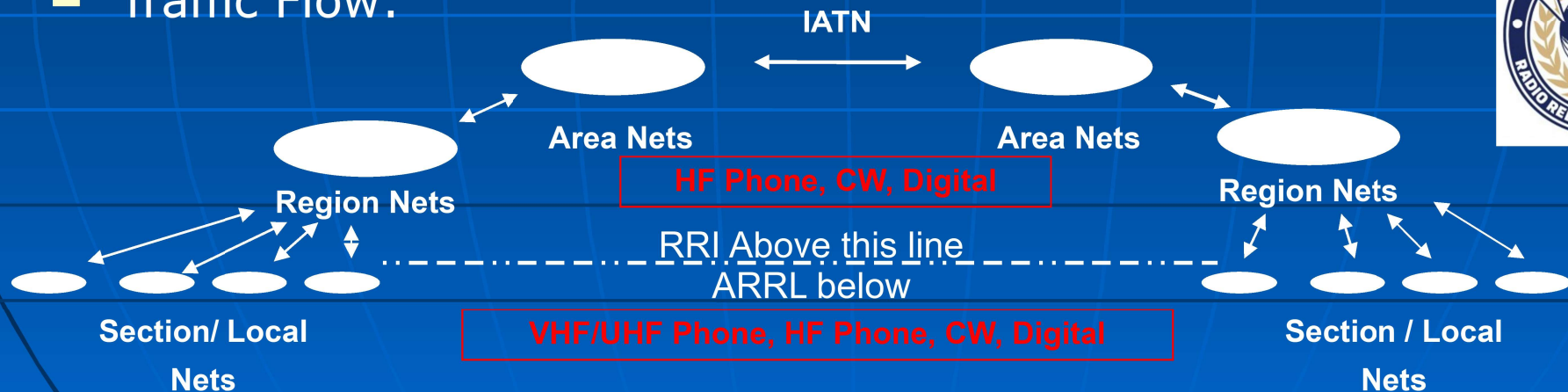- Fun, good practice & helpful!

NTN Hierarchy and Modes

- US and Canada organized into Area, Region, Section and Local Nets. Local & Section are ARRL, Region, Area and IATN are RRI
  - 3 Areas
  - 12 Regions
- Traffic Flow:

IATN

Area Nets

Area Nets

HF Phone, CW, Digital

Region Nets

Region Nets

RRI Above this line

ARRL below

VHF/UHF Phone, HF Phone, CW, Digital

Section/ Local Nets

Section / Local Nets

RRI NTN Areas

EAN = Eastern Area Net

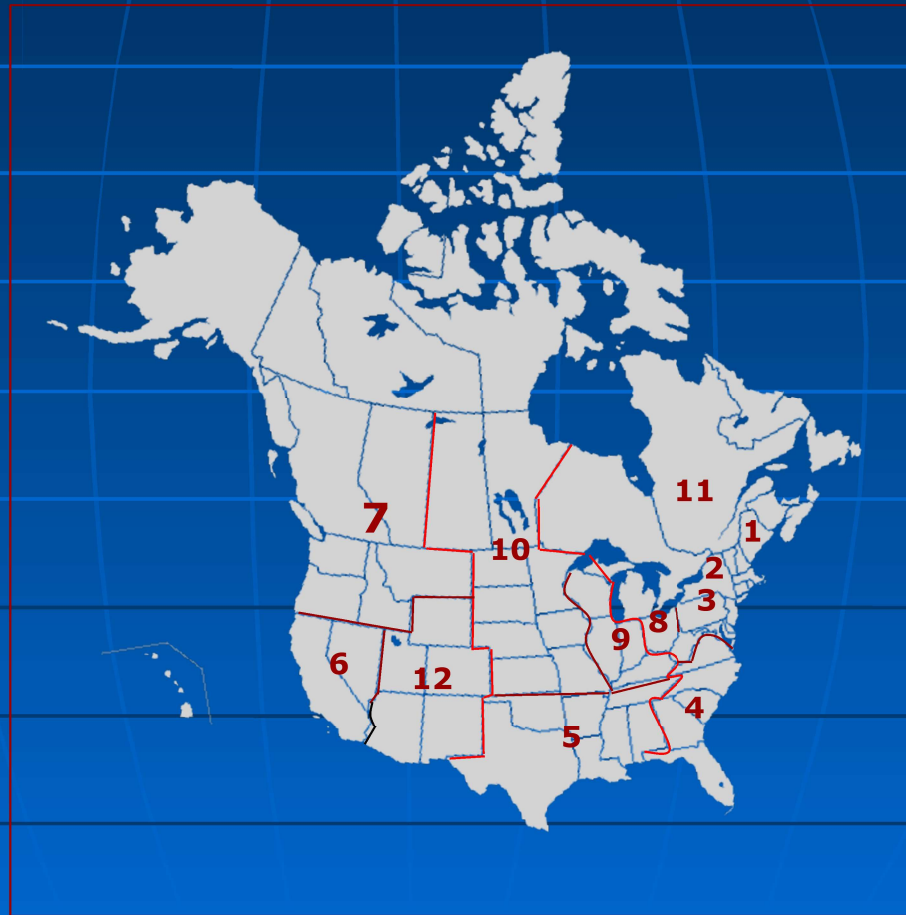CAN = Central Area Net

WAN = Western Area Net

RRI NTN Regions

For the most part, follow the call sign areas in the USA.
1, 2, 3, 4, 8 & 11 = EAN
5, 9 & 10 = CAN
6, 7 & 12 = WAN

Message Format

The Radiogram

The American Radio Relay League
RADIOGRAM
Via Amateur Radio

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
704	R	C	N2GS	14	CHESTER NJ	1830	JUL 2

To:

JOE SMITH KC2XXY
1234 SECOND ST
SUMMIT NJ 07901

650-123-4567

This Radio Message was received at:

Amateur Station_____ Date_____
Name_____
Street Address_____
City, State, Zip_____

Telephone Number:

THIS	IS	THE	ARRL	RADIOGRAM
FORM	XRAY	DETAIL	TO	FOLLOW
XRAY	HAVE	FUN	73	
GREG SZPUNAR N2GS				

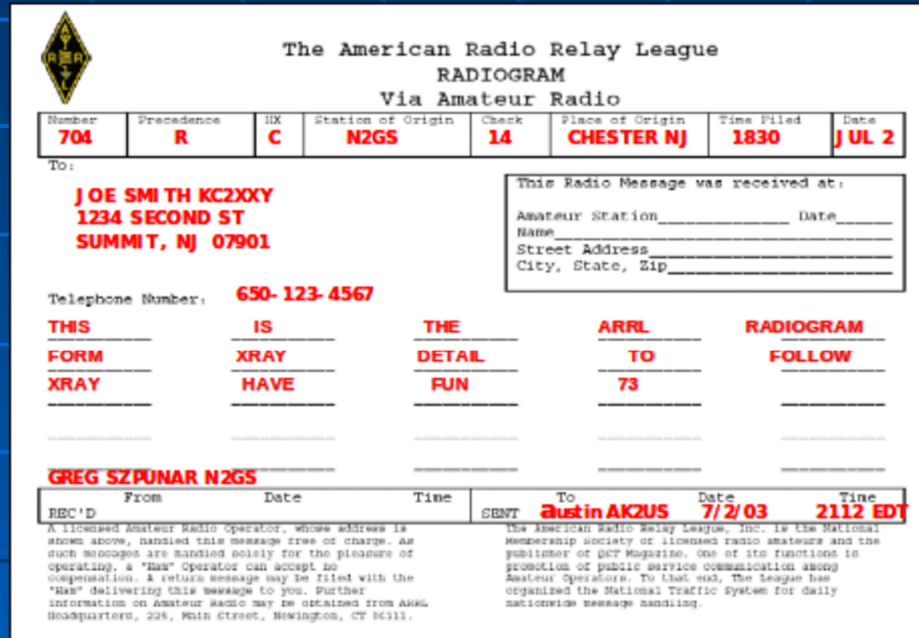| From	Date	Time	To	Date	Time
REC'D			SENT		

A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.

The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of QST Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.

ARRL Radiogram Form

- **Preamble:** Message number, precedence, HX (optional handling code), station of origin, check (text word count), place of origin, time filed (optional), and date.

- **Addressee:** Name, call sign (if a ham), full street address, city, 2-letter state abbreviation, zip code (very important) & telephone (be sure to include area code).

- **This Radio Message was received at:** Station identification and location.

- **Text:** 25 words maximum, 5 per line; Use the word "xray" for a period (.) and "query" for a question mark (?). Last word in salutation (e.g., "73", "Love", etc.)

- **Signature:** (Write-in above REC'D block) Name & call sign of person who wrote the message – include full phone number if not a Ham or if new to NTS.

- **REC'D & SENT:** Record the names and call sign of the person you rec'd the message from and/or sent/forwarded the message to, along with the date & time (EST/EDT or Z).

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
704	R	C	N2GS	14	CHESTER NJ	1830	JUL 2

Number
- Assigned by the message originator
- No standard way of numbering messages
- Consecutive (1, 2, 3…, starting over at the new year or monthly)
- Order by month & number (507 = 7th you originated in May; 11244 = 244th message you originated in November

Precedence (Emergency, P, W, or R)
- Emergency (life or death urgency in a declared emergency) always spelled out
- P = Priority (official traffic in a declared emergency)
- W = Health & Welfare (used only in a declared emergency)
- R = Routine (everything else – most frequently used)

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
704	R	C	N2GS	14	CHESTER NJ	1830	JUL 2

1. (OPTIONAL) HX or Handling Code – A, B, C, D, E, F or G - Not necessary for Routine messages.

   A. Collect landline delivery authorized within ___ miles of addressee or unlimited if blank
   (A150 = collect call authorized w/in 150 miles; A = collect call authorized regardless of miles)

   B. Cancel message if not delivered within ___ hours of filing time & service originating station
   (B72 = cancel if not delivered within 72 hrs and send message to originator to notify them)

   C. Confirmation of delivery requested by originating station ("TOD YOUR 1014 JULY 4 1330 PST XRAY 73" or if issues "ARL SIXTY SEVEN 1014 PHONE 650 555 1212 INCORRECT NO REPLACEMENT FOUND SENT RADIOGRAM INSTEAD XRAY 73"

   D. Report your identity & time/date rec'd message plus time/date delivered or sent to another

   E. Delivering station to get reply from addressee and send to originator as a new message

   F. Hold delivery until ___ (numbered day of month) – great for birthday or anniversary messages
   (F14 = deliver on 14 of the month; F1 = deliver on the 1 of month after date filed)

   G. Delivery by mail or toll call not required, service originating station (often ignored).

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
704	R	C	N2GS	14	CHESTER NJ	1830	JUL 2

1. **Station of Origin:** Call sign of station who put the message into NTS <u>format</u>; If N2GS prepares message 1207 for a fellow ham, then puts it onto an NTS packet BBS for relay to Vermont, the originator is... N2GS. If WB2W prepares message 23 for his non-ham neighbor then gives it to N2GS to relay to any NTS net, the originator is... WB2W.

2. **Check:** The word count in body text only (do not count the address or signature); precede with "ARL" if any of the ARL numbered texts are used (e.g., ARL 7).

3. **Place of Origin:** The city & state where the message was written.

4. **(Optional) Time Filed:** This is not used much... 24-hr format & time zone

5. **Date:** Month (non-numeric – abbreviated) & day number message was created e.g., Sep 21).

To: JOE SMITH KC2XXY
1234 SECOND ST
SUMMIT NJ 07901

650-123-4567

This Radio Message was received at:

Amateur Station_____ Date_____
Name_____
Street Address

To:
Name, call sign (if going to a ham), street address or P.O. Box, city, state (abbreviated) & zip code.
Note: Digital and packet NTS messages are routed via zip code.

Telephone Number:
Be sure to include the area code and double-check the number!!!

This Radio Message was received at: Your station identification, date received, and your location. More received-from detail will go in the "REC'D" block after body text and signature.

THIS	IS	THE	ARRL	RADIOGRAM
FORM	XRAY	DETAIL	TO	FOLLOW
XRAY	HAVE	FUN	73	
GREG SZPUNAR N2GS				

Text: 25 words maximum, 5 per line; Use "xray" for a period (.) and "query" for a question mark (?).

Signature: There is no "Signature" field, just write-in below text; Name & call sign of author – include phone number if not a ham or if not known on an NTS net.

From	Date	Time	To	Date	Time
REC'D			SENT		

REC'D: Call sign from whom <u>you</u> received the message and date & time of receipt. Time may be either your local time (PST/PDT) or Zulu time. Make sure date agrees with time (Zulu is 8 hours ahead of PST – can cause date to roll forward).

SENT: Call sign <u>you</u> <u>sent</u> or passed the message to, or to whom you <u>delivered</u> it, with date & time. Also good to note delivery method for your own reference (i.e., via phone or left on Tom's voicemail). Always leave your call back number if message was left on voicemail!

ARL/RRC Numbered Texts
Purpose & How Counted

- ARL or RRC Numbered Texts replace common phrases in message body text (i.e., Happy Birthday, Greetings by amateur radio, etc.)

- Use of ARL or RRC texts reduce total message word count – faster and more consistent transmission of text.

- ARL & RRC texts are universal.

- Translated before delivery of message to addressee

- Text numbers are always spelled-out in words
  (i.e., ARL SEVEN or RRC FORTY SIX)

- Message word count (check) is written as "ARL #" or "RRC #" (e.g., ARL 4 or RRC 15) to alert operators that message includes at least one ARL or RRC numbered text.

ARL Numbered Texts (Examples)

- ARL FORTY SIX = Greetings on your birthday and best wishes for many more to come.
- ARL FORTY SEVEN = Your message _____ to _____ delivered _____ _____UTC
- ARL FIFTY = Greetings by amateur radio.
- ARL FIFTY ONE = Greetings by amateur radio. This message is sent as a free public service by ham radio operators at _____. Am having a wonderful time.
- ARL SIXTY SEVEN = Your message number _____ undeliverable because of _____. Please advise.

How to Deliver a NTN Message

- Preferred delivery is via email or telephone.

- Okay to leave on voicemail or answering machine IF you are comfortable you reached the right person.

- Radiogram postcard if cannot reach by phone.

- Service originating station to inform if cannot deliver or if they requested confirmation.

- Break down abbreviations into plain language, e.g. 73 = Best Regards.

Record Keeping & Reporting (PSHR/SAR)

- Use a log sheet to keep track of your messages

- Use a PSHR log sheet to tally monthly points for Public Service Honor Roll.

- Report message count (originated, sent, received
  & delivered) to STM monthly in SAR.

- Send reports to STM,   Dave Bogner W7EES - Preferred OTA -

- E-Mail dave at w7ees dot net or dave.w7ees at gmail dot com.

SAR Report Example

24 R K7XYZ 10 ANYWHERE OR SEP 1

W7EES

BT

SAR AUG 2019 O/1 R/38

S/36 D/2 T/77 X 73

BT

K7XYZ

PSHR Categories

1. Participating in a public service net. 1 point ea. 40 maximum.
2. Handling formal messages. 1 point each orig/rx/tx/del OTA! 40 max.
3. ARRL Appointments. 10 points each. Maximum 30.
4. Participation in scheduled Public Service event. 5 pts./hour. No limit. (Includes off air meetings for planning purposes.)
5. Emergency response incidents. 5 points per hour. No limit.
6. (a.) Maintaining an automated digital system (e.g. a BBS). (b.) Web page or email web server. 10 points each. (Winlink Express does not qualify as an automated digital system for this category unless used over the air.)

Qualifying (70+ points) for PSHR FOR 12 consecutive months earns a certificate from ARRL HQ. (Or 18 out of 24 months.)

PSHR Report Example

23 R K7XYZ ANYWHERE OR SEP 1

W7EES

BT

PSHR AUG 2019 1/40 2/40

3/10 4/0 5/0 6A/10 6B/0

T/100 X 73

BT

K7XYZ

Brass Pounder's League

The Brass Pounders League, primarily for Brass Pounders, is awarded to stations reporting more than 500 total message points in a calendar month. (Or a total of 100 Origination plus Delivery points in a calendar month.) Phone and digital stations are permitted to participate as long as the points are earned Over The Air. No telnet/AXIP/ftp/http/Winlink (telnet.)

Results are published monthly in QST.

Additional Resources

- [ARRL](#) – www.arrl.org

- [R.R.I. Web Pages](#) – A good source of training material and other information. www/radiorelay.org

Acknowlegements

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Questions?