



WHAT IS TRAFFIC HANDLING ALL ABOUT?

Gerry Jurrens N2GJ January 6, 2024

AGENDA

Introduction

What is “Traffic”?

ARRL Volunteers

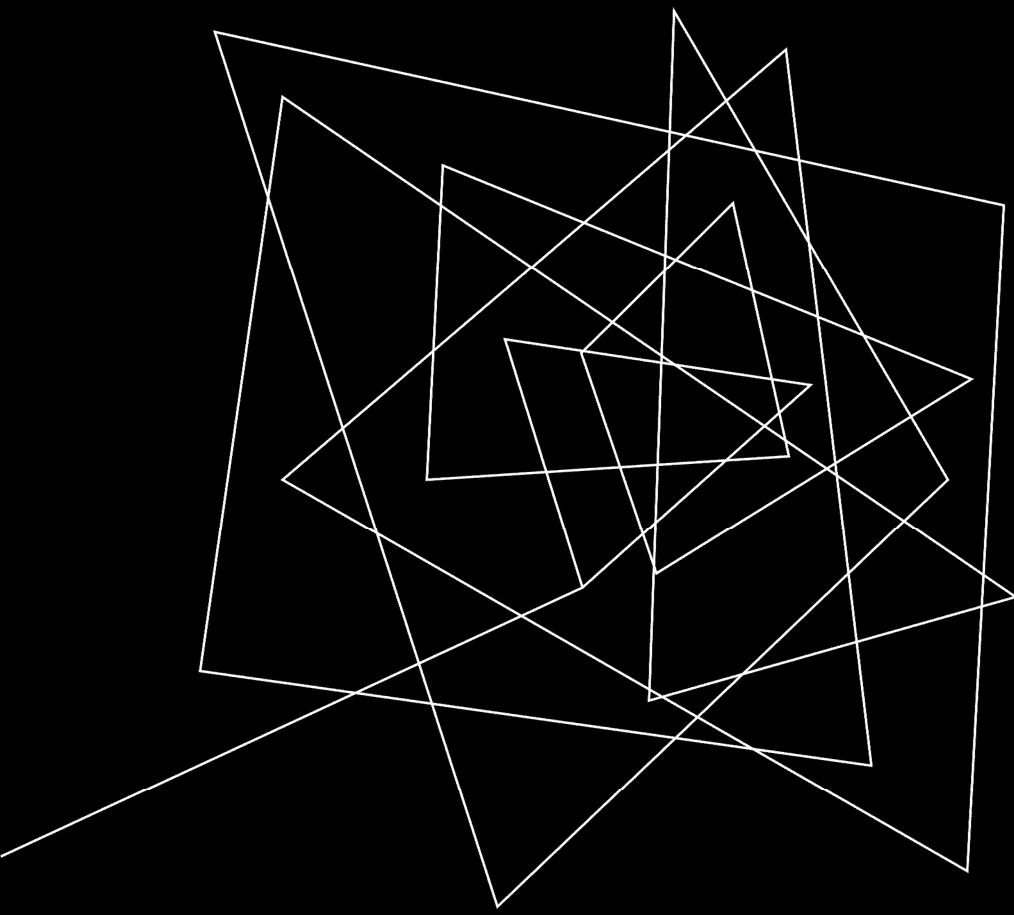
NTS explained

Looking ahead



INTRODUCTION

The American Radio Relay League (ARRL) is the National Association for Amateur Radio. It has been around since 1914, when Hiram Percy Maxim and a few friends gathered together to create an organization to promote what we know of as “Ham Radio.” It relies heavily on volunteers who give of their time and energy to support awareness and growth of our hobby.



PRIMARY GOAL

To describe a brief history of the National Traffic System and the role volunteers play in handling messages as a public service.

WHAT IS “TRAFFIC?”

In Amateur Radio jargon, “traffic” is often defined as messages that are originated, sent and received wherever “third party communications” are permitted.

Third-parties can best be described as non-licensed hams. For example, I might want to send a birthday greeting to my Aunt Beatrice in Sheboygan, via ham radio. She is not a licensed ham.

The law: <https://www.law.cornell.edu/cfr/text/47/97.115>

So, think of traffic as messages...keep in mind, U.S. and Canadian hams are permitted to send and receive messages to each other and 3rd parties

There are other international treaties that govern the passing of traffic

TRAFFIC DISTILLED....

During normal times, messages are routine greetings ('Happy birthday Aunt Bea'). These keep the system well-oiled and operators trained so that everything works when needed. When there is an emergency or disaster, NTS works closely with the Amateur Radio Emergency Service (ARES) to provide emergency communications. The most common type of disaster-related messages are "health and welfare" inquiries and notifications into and out of the area affected by the disaster."

"In times of disaster, it is easy to expand the system by simply creating additional meeting times for the nets with high volume, or by setting up a specific 'trunk line' between two points."

(from Wikipedia)

A BRIEF HISTORY OF TRAFFIC HANDLING

- In the earliest days of our hobby, most households had no mode of communications except postal mail
- Even as late as the 1950's many homes did not have telephones
- Often, in rural locales, a neighbor with a phone might relay messages to and from other households without phones
- Many towns might have at least one or two amateur radio operators
- Some hams enjoyed using their radio stations to relay messages
- Natural and man-made disasters often characterized ham radio as what is used "when all else fails!"
- The name "American Radio Relay League" codified a network of operators across the country
- The "National Traffic System" (NTS) was established to formalize these networks

WHAT IS THIS “NATIONAL TRAFFIC SYSTEM?”

- As early as 1915, the ARRL encouraged hams to get involved as a public service
- NTS was (and is) the formalization of the practice of relaying messages from point to point, wirelessly
- In the days when men walked with dinosaurs, the only mode of wireless communications was CW (Morse Code) or, I guess, smoke signals!
- Today, messages are relayed by any means available: CW, RTTY, Voice, and Digital
- A major part of the codification of NTS included ARRL Field Organization Appointments: Official Relay Stations (ORS), Digital Relay Stations (DRS) & Section Traffic Managers (STM).
- Any licensed ham with the appropriate requirements can become involved
- Leadership flows from the Section Manager (In New Mexico, our SM is Bill Mader, K8TE) to the STM, and on to Net Managers, and ultimately, relay stations
- For years, the NM STM has been Alden T. Oyer AG5S in Santa Fe.

HOW IS NTS ORGANIZED?

- Traffic is formally originated, “passed/relayed”, received, and delivered in the form of (typically) written messages called “radiograms.”
- A message can be originated by anyone, ham or not, but sent by a ham
- Throughout the country, “Nets” – radio networks – have been established in three main categories: Local, Region, and Area nets.
- In our state, the main local NTS net is called “The New Mexico Roadrunner Traffic Net” whose net manager is Don K. Wood KF5MEF in Edgewood. It meets every day at 0100z on 3.939 MHz on SSB
- Next is the Region Net. In NM, it’s called TWN (Twelfth Region Net) see: <https://www.na7g.com/station-assignments.html>
- Stations relay messages in and out of the Local nets to the Region nets
- Next is the Area Net. In NM, it’s called PAN (Pacific Area Net)
- Stations relay messages in and out of the Region Nets
- And, finally, there’s the TCC (Trans-Continental Corps)

HOW IS NTS ORGANIZED, CONTINUED?

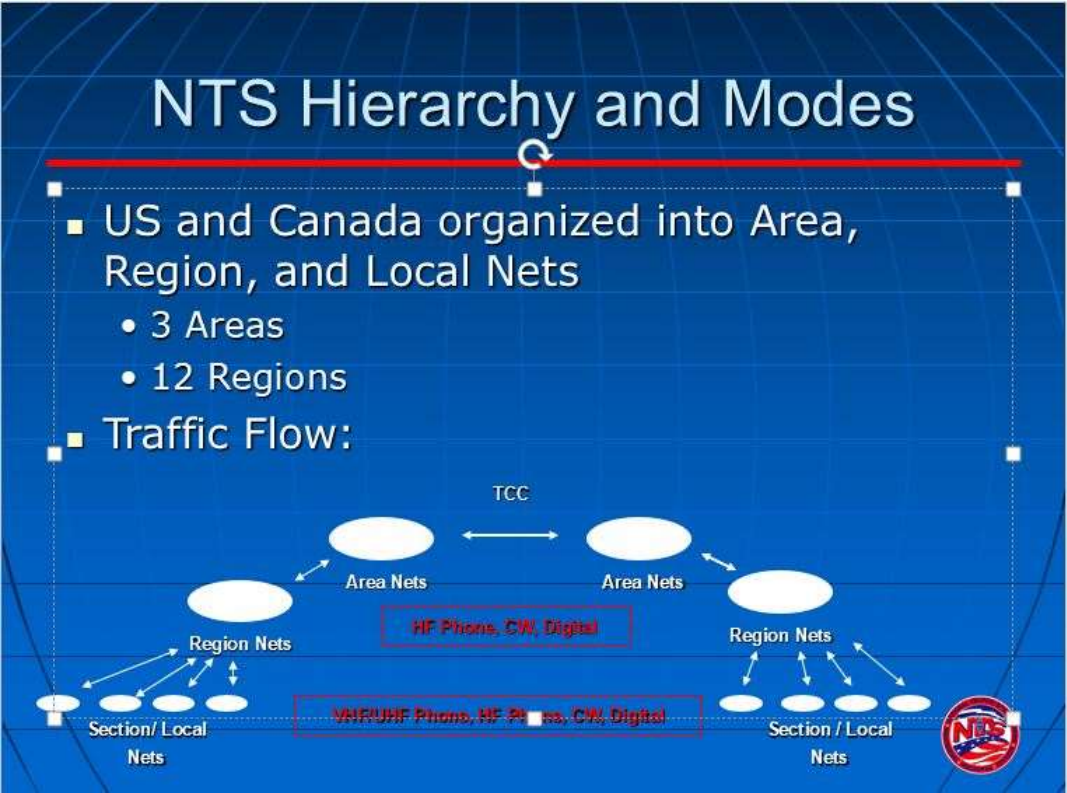
- And, finally, there's the TCC (Trans-Continental Corps)

TCC stations do not exist as a net, per se. These stations meet on pre-assigned schedules for the purpose of transferring traffic from one area to another. The normal mode of their operation is CW (HF only). Generally TCC members are seasoned veterans of the NTS.

My experience consists of handling traffic to/from VHF/UHF/HF local nets. I have also served as a liaison to/from Region and Area nets. I have also been the net manager for several nets throughout my nearly sixty years as a licensed ham. I have never been a member of the TCC.

The next slide depicts the NTS organization in graphic form.

THIS SHOWS THE FLOW OF TRAFFIC



SO WHAT IS THE MESSAGE FORMAT?!
IT ALL STARTS WITH A RADIOGRAM

AN EXAMPLE OF A HAM RADIOGRAM



The American Radio Relay League
RADIOGRAM
 Via Amateur Radio

Number 704	Precedence R	HX C	Station of Origin N265	Check 14	Place of Origin CHESTER NJ	Time Filed 1830	Date JUL 2
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To:

JOE SMITH KC2XXY
1234 SECOND ST
SUMMIT NJ 07901

This Radio Message was received at:

Amateur Station _____ Date _____
 Name _____
 Street Address _____
 City, State, Zip _____

Telephone Number: **650-123-4567**

THIS	IS	THE	ARRL	RADIOGRAM
FORM	XRAY	DETAIL	TO	FOLLOW
XRAY	HAVE	FUN	73	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

GREG SZPUNAR N265

REC'D	From	Date	Time	SENT	To	Date	Time
					Austin AK2US	7/2/03	2112 EDT

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.

Amateur Radio RADIOGRAM Text Creator

[Read Help and Instructions!](#)

Number <input type="text" value="1"/>	Precedence R EMERGENCY P W <small>Emergency not in use at this time.</small>	Handling Instructions NONE HXA HXB HX Help ADD MORE HX INFO	Station Of Origin N2GJ <small>Change if not you.</small>	Check <input type="text" value="0"/>	Place of Origin ex. OWLS HEAD ME	Time <input type="text" value="Optional"/>	Date <input type="text" value="DEC 25"/>
						<input type="radio"/> Current UTC Time <input type="radio"/> Current Local Time <input checked="" type="radio"/> No Time	

TO:

Name: Call Sign:

Address:

City / Town: State or Province: [2 Letter Codes](#) Zip:

Country:

Phone: Extension: E-mail:

Op Note about this Radiogram:

MESSAGE TEXT Check: [Numbered Message Help](#)

SUGGESTION IS NO MORE THAN 25 GROUPS (WORDS)

This is a Winlink Radiogram form...radiogram.txt

[Click here to preview for accuracy BEFORE you SUBMIT](#)

Signature (name) of person for whom message originated:

Operator Note:

RADIOGRAM MESSAGE PAD

USEFUL FOR RECORDING FORMAL RADIOGRAM MESSAGES. 50 SHEETS. \$3.00

THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM

VIA AMATEUR RADIO

NUMBER	PRECEDENCE	RX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
--------	------------	----	-------------------	-------	-----------------	------------	------

TO _____

THIS RADIO MESSAGE WAS RECEIVED AT

AMATEUR STATION _____ PHONE _____

NAME _____

STREET ADDRESS _____

CITY AND STATE _____

TELEPHONE NUMBER

REC'D	FROM	DATE	TIME	SENT	TO	DATE	TIME
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THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATOR. WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT ABOVE. IN SUCH MESSAGES ARE HANDLED SOLELY FOR THE PLEASURE OF OPERATING; NO COMPENSATION CAN BE ACCEPTED BY A "HAM" OPERATOR. A RETURN MESSAGE MAY BE FILED WITH THE "HAM" DELIVERING THIS MESSAGE TO YOU. FURTHER INFORMATION ON AMATEUR RADIO MAY BE OBTAINED FROM A R.R.L. HEAD QUARTERS, 335 MAIN STREET, NEWINGTON, LOUISIANA, 70111.

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 COMMUNICATIONS AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATIONWIDE MESSAGE HANDLING.

PRINTED IN U.S.A.



....IN THE PAST FEW YEARS,
THERE HAS BEEN A HUGE
GROWTH IN DIGITAL MESSAGE
HANDLING

Think back to Ed Poccia (KC2LM)'s presentation from last month (December 2023) about Winlink, for example

Note: This presentation leaves NTSD to another day.



SUMMARY

The National Traffic System (NTS) has a long, effective history. As stated, the NTS has long relied upon voice and CW modes. With the advent of other digital modes of operation, we look forward to ARRL's National Traffic System 2.0 for the 21st Century

For more information on NTSD, please see:

https://nts-digital.net/mw/index.php/Main_Page

For more information on NTS 2.0, please see:

<https://nts2.arrl.org/>



THANK YOU!
73

Gerry Jurrens, N2GJ

n2gj@arrl.net

(609) 937-2315

www.bosquearc.com