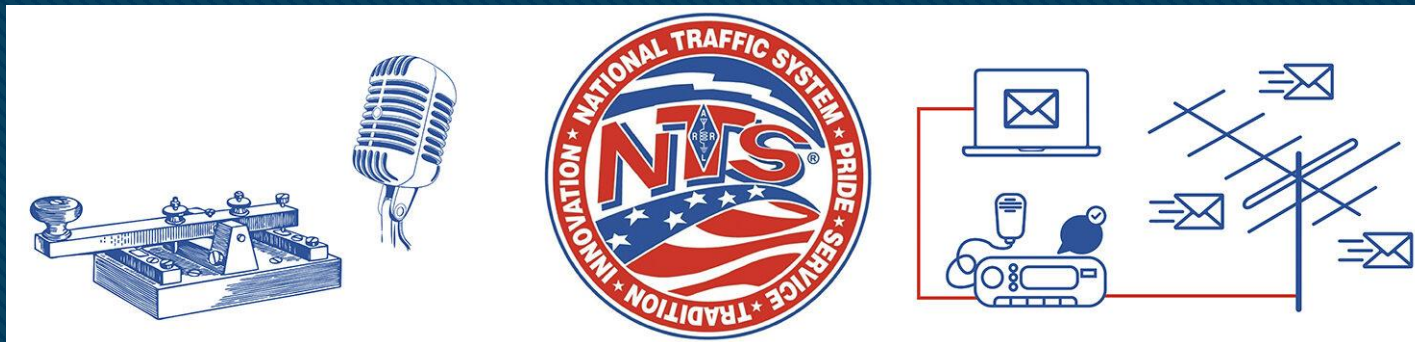


National Traffic System Overview

George Stone, WA1JQC

Virginia Section Traffic Manager



Section Traffic Manager (STM) Responsibilities

- Appointed by Section Manager
- Coordinate with Section Emergency Coordinator
- Organization & planning
- Develop traffic handling program
- Ensure traffic nets are staffed
- Assign net liaison coverages
- Ensure digital systems are polled daily
- Establish training programs
- Recommend Net Manager and Official Relay Station candidates to SM
- Monthly traffic reports to ARRL



Goals



Understanding of:

What NTS is, what it does,
how it functions

NTS & ARES nexus

How to participate in NTS

What is NTS “traffic”?



THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM

VIA AMATEUR RADIO



NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE

TO

TELEPHONE NUMBER

THIS RADIO MESSAGE WAS RECEIVED AT

AMATEUR STATION

PHONE

NAME

STREET ADDRESS

CITY, STATE, ZIP

FROM	DATE	TIME	TO	DATE	TIME
REC'D			SENT		

THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATOR, WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT ABOVE. AS 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 ARRL HEADQUARTERS, 225 MAIN STREET, NEWINGTON, CT 0611

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.

Radiograms – like a telegram

GENERAL MESSAGE (ICS 213)

1. Incident Name (Optional):		
2. To (Name and Position):		
3. From (Name and Position):		
4. Subject:	5. Date:	6. Time:
7. Message:		
8. Approved by: Name: Signature: Position/Title:		
9. Reply:		
10. Replied by: Name: Position/Title: Signature:		
ICS 213	Date/Time:	

ICS-213 General Message form used in ARES/Incident Command System

- Preamble
- Address
- Text
- Signature
- Relay information

5

National Traffic System: the “Relay” in ARRL & RRI!



A network that allows for rapid movement of traffic mainly for Canada & US over RF



Pass routine messages during normal times; health & welfare traffic during emergencies



Trains operators in relaying messages timely and accurately; reinforces good on-air procedures



Co-managed by ARRL and Radio Relay International (RRI)



Public service per FCC Part 97 rules justifying ham radio's existence

NTS & ARES

- The ability to establish radio connectivity for EmComm is no longer enough these days.
- One must be able to:
 - *Communicate* accurately and efficiently
 - Keep a concise radio log
 - Transcribe information without error
 - Perform administrative functions required of a message center or EOC.
- Traffic nets are the place to practice sending and receiving messages using standard prowords, proper ITU phonetic alphabet, and concise procedures.
- Some dismiss traffic handling because they see the content of routine messages as “unimportant,” but they are missing the point. The real value proposition is in the practice of transmitting variable message content. Every address is different. Network management data varies from message to message
- Source: *James Wades, WB8SIW, RRI Board Chairman*



How NTS Works



Traffic nets

Replaced pre-WWII trunk lines from Hiram Percy Maxim, W1AW
Time-sequenced, layered networks
Voice & CW modes



Digital Traffic Network

Augments – but does not replace – traffic nets
Messages offloaded from DTN to traffic nets
Nodes and “store and forward” mailboxes
Protocols: PACTOR & VARA HF



Standardizing message formats facilitates interoperability between modes

Messages must be able to be relayed seamlessly between traffic nets and digital system



Messages prioritized by precedence categories

Net hierarchy



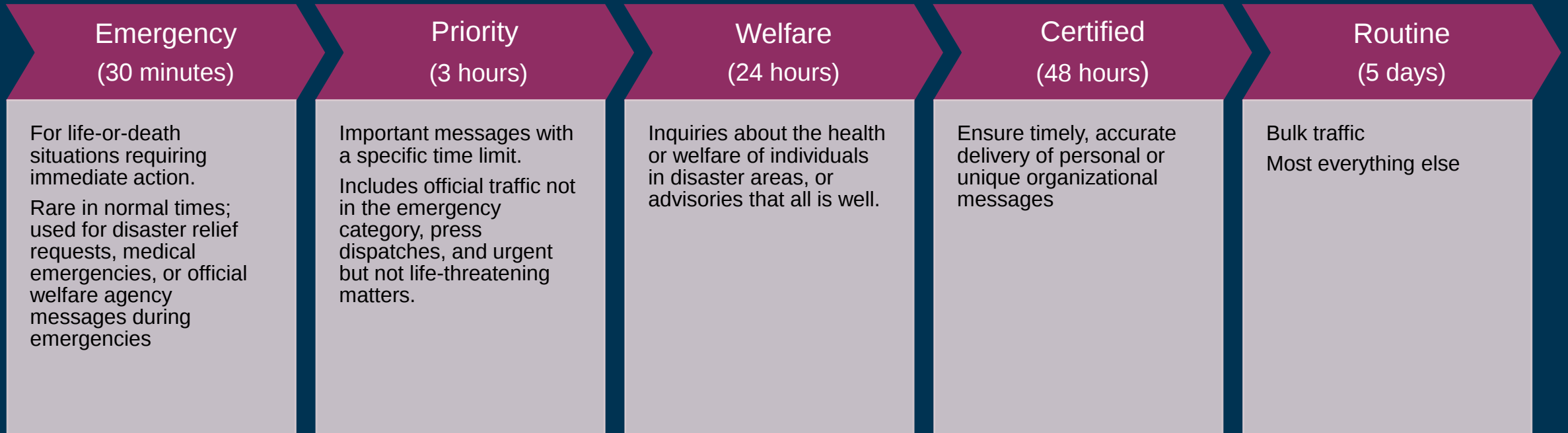
Think: airline hub and spoke system

Virginia Section Nets (daily)

Net	Freq	ET
Virginia Sideband Net*	3947 kHz	6 pm
Virginia Net (CW)*	3553 kHz	7 pm
Virginia Fone Net (independent)	3947 kHz	4 pm & 7:30 pm

*ARRL/RRI affiliated net

Message Precedence & Delivery Standards



NTS Modernization



ARRL-RRI MOU:
coordination &
designated
responsibilities



Radiogram web portal for
public use



New "Certified"
precedence category



QTC: Online radiogram
traffic management tool



Relay and delivery
standards, system testing



Monthly NTS newsletter

NTS Modernization

 **Improve delivery methods** for radiograms, including digital and web-based tools

 **Expand outreach and NTS awareness** to the public and public agencies

 **Address reliability concerns and testing the system**

 **Enhance training and documentation**

 **Expand wide-area communication services** for ARES, SKYWARN, RACES, and served agencies

 **Move Beyond Radiograms**, e.g., images and videos

Training from ARRL & RRI

ARRL

- Getting Started In Traffic Handling
- Traffic Handling 101 Series
 - The Basics – NTS Overview
 - Radiograms
 - Sending Traffic
 - APRS Gateway

RRI

- Voice Net Procedures
- CW Net Procedures
- Recommendations for the Origination, Relay and Delivery of Radiogram-ICS-213 Messages



ARRL's Virtual NTS Training Net: Wednesdays @ 7 pm on Zoom

- **Week 1**

- Passing traffic
- NTS overview
- Radiogram form explanation

- **Week 2**

- ARL numbered messages
- Service messages
- Health and welfare message handling

- **Week 3**

- Passing book/bulk traffic

- **Week 4**

- Traffic net operations and procedures



ARRL On The Air Live

On The Air Live: ARRL National Traffic System

Overview

DESCRIPTION

What if you need to send a message from a disaster area, but all forms of communication are down? The ARRL National Traffic System could be your tool to get the message out. Join ARRL Education Specialist Wayne Greene, KB4DSF, and learn about the history of the National Traffic System, how it works, and how you can become a regular user and be prepared to send and relay traffic.

August 25, 2026

Tue 8:00 PM EDT 

Audio Options:

 Use Your Computer

ARRL Volunteer Recognition: Certificates

- Local Net
- Section Net
- Official Relay Station
- Net Manager Participation
- Net Control Participation



My “Ask”

- Help VA NTS provide statewide coverage on traffic nets
- Try One Net/Once a Week
- Originate 2-3 Radiograms monthly via
 - Nets
 - WinLink
 - ARRL Radiogram portal
- Designate NTS liaison on ARES nets

Summary

- NTS traffic: radiograms & ICS-213 General Message forms
- NTS & ARES nexus
- Traffic nets: hierarchy and time sequence
- Virginia traffic nets
- Training opportunities from ARRL & RRI
- Keeping informed about NTS modernization
- Recognition
- Participate in NTS nets and originate more radiograms

Additional STM Presentations Available (15 minutes each)

Introduction to NTS

Traffic Nets

Handling Formal Traffic

Radiograms: the details

“NTS 2.0” modernization

Resources, Training & Recognition

Digital Traffic Network



Questions?