

# NTS Update

SEMARC April 29, 2025

# History and Function Of the National Traffic System (NTS)

- Younger hams know ARRL as ARRL, the National Association for Amateur Radio
- Older hams know ARRL as the American Radio Relay League
- Virtually since its inception, the League has committed to public service and the ability to transmit messages, vital and otherwise, for members of the public, across states and the country

# Development of the NTS

- First message relay capacity shown in relay of message from Hartford CT to Springfield MA through Windsor Locks CT
- Original groups/operators were uncertain efforts, who under the League eventually developed trunk lines to pass messages across the Country
- There were two trunk lines covering east-west in the US and three covering north-south; eventually, more than 120 cities were covered by the trunk lines; the amateurs operating the trunk lines were the first of known nets
- But there were gaps and difficulties with time zone differences across the country

# In the late 1940s, a New Structure Evolved The NTS as We Know it Today

- The development was led by George Hart, W1NJM
- It was designed to improve on the operation of the older trunk lines
- It also was designed to support the flow of messages across time zones, increasing the likely timeliness of message delivery
- The system was designed on the interaction between local, section, regional and area nets to ensure the flow of traffic

# Organization of the NTS looked like.....

- PAN-----CAN-----EAN
- Supported by Eleven Region Nets
- Fed by local, state, section nets and other operating nets
- Traffic moves in both directions among the section, regional and area nets in a way that greatly facilitates the flow of traffic



# States/Sections Reporting through CAN

- IL, IN, KY, WI (RN9)
- AL, AR, MS, OK, LA, MS, TN, TX (RN5)
- MN, IA, KS, MO, NE, ND, SD, MAN, SK (TEN)

So, if KA0HYR wanted to send a message as part of an SET, he...

- Might check into the MN Section Phone net,
- Where an Operator might take it to the MN Section CW net,
- Who would bring it to the Region Ten Net, where it would be brought to CAN, where a TCC operator would pick it up to bring to the PAN,
- Where it would be relayed to the RN7 net,
- Where a representative from WWA would bring it back to the section net,
- Where it might be passed to a section member to deliver the message
- Or passed to the local ARES net for delivery to the EC John wanted to get it
- Within the day, a response would work its way back to John, reversing the original route...if so requested by John



# The timing might look like the following

- 5 PM Central, MN Section Phone Net
- 6:30 Central, passed to the MN Section CW Net
- 7:45 Central passed to the Region Ten Net
- 8:30 passed at a TCC operator at the CAN
- Brought on a single transfer to PAN
- Where the message would work down through the region, section and local nets

# So, What's this NTS 2.0 Effort I've Heard Of?

- Recognition that society has changed, e.g., cell phones, text messaging, loss of landlines
- Resulting in increase in regular, mostly congratulatory radiograms
- Not as much emergency, priority or health and welfare traffic as in past
- Despite the changes there is a considerable core of amateurs who use the NTS
- ....365 days a year, across states, US geographic possessions, taking and delivering international traffic, too
- Time effort and attention to the NTS has waned over the years for a number of reasons. ... and it needs attention

# NTS 2.0 Vision

- Improve and expand the ways in which we deliver and originate traffic  
SSB, CW, Digital modes
- NTS 2.0 will serve as a wide area message communications service for  
ARES, SKYWARN and RACES
- Agencies and NGOs involved include FEMA, CISA, American Red Cross,  
Saturn and MARS

# NTS implementation Plans

- Standards and tools for reporting activity and NTS performance
- ICS message procedure and training
- Delivery time and reliability standards and measures including self measuring of traffic

# Subsequently,

- Additional methods for delivering traffic to recipients
- Recognition and incentives programs
- New ham outreach and recruiting programs
- Plan to measure and secure nationwide DTN coverage

# New opportunities for Community Members to Send Messages

- The radiogram portal
- Allows members of the public to send limited content messages to others
- Members of the public do not originate traffic
- The message is entered into the portal system and later picked up by a “radio-programmer” to be placed into the NTS for proper handling and delivery
- Could be used for instance, for the Inver Grove Strawberry Festival, if an NTS station is not present and operating
- Check out the Portal on the ARRL web site

# So, What Does a Message look like?

- Nr 30 R HXG NOUC ARL 25 Cottage Grove MN April 23

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ARL Fifty X Why do I always have to set up your slides for a SEMARC presentation Query OK I will do it X 73 – Dick NOUC

# Dick's choices for routing the traffic

- Hands it to Brian during a SEMARC 2-meter net;
- Goes P2P with the message to KA0HYR for delivery to me, using VARA and WinLink
- Goes to the MN Section SSB net and lists the traffic
- Goes to the MN Section CW net and lists the traffic
- Goes to the PICO Net and lists the traffic
- Goes to the SD net and lists the traffic
- Originates through NTS Digital
- Shoots Brian an email...outside of the NTS



# Brian's Observation on Messages

- It's not a message until it is delivered
- If a relay station decides not to deliver, it's not a message
- If it's dropped in the Radiogram portal and no one picks it up and cycles it into NTS, it's not a message
- If it's in any mail forwarding digital system and languishes, it's not a message.
- If someone's afraid to call the telephone number and deliver it, and lets it die, it's not a message

# NTS Expectations for Message Delivery

- By phone, especially if the message is to a member of the public, ASAP
- If there is no phone number indicated on the message, receiving station should search available public information to find an operational number and deliver the traffic
- If no telephone number is indicated on the message but an email is, defer to the email as a path for delivery
- If all avenues to deliver it personally, via phone answering service or email, a nice note explaining the message and the NTS can be made to the intended recipient

# So...Finding an NTS Net or Other Traffic Net, Listening in and Learning

- MN ARES HF Net....Sunday 6:00 PM.....3860 khz
- MN Section Phone Net...DY... Noon and 5:00 PM...3860 khz
- TEN SSB Net...DY...1:45 and 3:45 PM....7227.5 khz
- MN Section CW Net....DY....6:30 PM....3568 khz
- TEN CW Net...DY...7:45 and 9:30 PM....3562 khz
- PICONET.....9 AM -11AM and 3 PM -5PM...M-F....3925

# Final Thoughts

- Not all reasons for communication support are local
- Not all reasons for communication support are statewide
- Not all reasons for communication support are regional
- Not all reasons for communications support are national
- Not all need can be supported with CW only
- Not all need can be supported with SSB or FM only
- Not all need can be supported with digital only
- We all need to find out niches and contribute

# OK, OK, One More Slide on Final Thoughts

- Take the handouts and review them to ensure you are familiar with the ARRL format and the ICS 213
- Questions?
- Thank you for your kind attention