



What is the NTS?

The NTS is a field organization of the ARRL (American Radio Relay League) which was formed to pass formal written messages (traffic) from any point in the United States to any other point. The NTS has its origins in the earliest days of radio as indicated by the name, "American Radio *Relay* League". These messages, which are put in a standard format called a "radiogram", are relayed from one ham to another, using a variety of modes, including voice, Morse code, radio teletype, or packet. The message is ultimately delivered to the addressee by an NTS operator who lives fairly close to the recipient, either by telephone, mail, or hand delivery (uncommon).

During disasters or other emergencies, radiograms are used to communicate information critical to saving lives or property, or to inquire about the health or welfare of a disaster victim. During these times, the NTS works in concert with the [ARES \(Amateur Radio Emergency Service\)](#) and other emergency and disaster relief organizations, such as the American Red Cross and The Salvation Army.

But even when there is no emergency, the NTS operates every day and is used by thousands of people -- hams and non-hams -- to send and receive brief messages of a personal, non-commercial nature, such as birthday greetings, congratulations on a special event, or wishes for a speedy recovery. Subject to international treaties governing "third party" messages, many foreign countries also allow their hams to exchange radiograms with US hams.

How are NTS Messages Handled?

Messages can originate from either hams or non-hams. Non-hams who would like to send a radiogram should contact a ham friend or neighbor. There is no charge for a radiogram. Radiograms are one way hams serve the public, and they are welcomed as a way to train new traffic handlers and keep the experienced handlers in practice.

Messages are usually relayed using a system of "nets". Nets are on-the-air meetings of message handlers at an appointed time and a designated frequency. There are four levels of nets, each covering broader territory -- local, section, regional, and area. Local nets relay messages to and from the Section nets; Section nets to the Region nets; Region nets to the Area nets. These nets are held throughout the day in order to move messages around the country. (Only designated operators participate in the Region and Area nets. These nets are not open for general participation.)

Digital Modes

NTS messages can also be initiated or relayed using digital modes.

For long distance relays, there is a digital HF (High Frequency) version of NTS, called NTSD (Digital). NTSD operators use Pactor digital modes on the 80, 40, 30, and 20 meter HF frequencies. Designated NTSD operators in each region and area relay messages, either between regions or to and from the area stations. The hierarchy and stations in the NTSD are illustrated at http://home.earthlink.net/~bscottmd/n_t_s_d.htm

At the local level, packet is often used. NTS packet messages can be initiated and sent by any packet-capable operator. Messages for delivery are posted on cooperating NTS PBBSs (Packet Bulletin Board Systems). Messages come into these BBSs from the NTSD HF network or from local packet networks in nearby sections or regions. In addition, any voice NTS messages that might not have been picked up on a voice net (see above) can be posted to an NTS PBBS. One of the big advantages of a PBBS is that it will hold messages for later pickup, perhaps by an NTS operator who wasn't able to listen to the voice net.

How to become an NTS Message Handler

Any Amateur Radio license holder can become an NTS operator. To get started, you first might want to read about general NTS system operations, standard net procedures, and the radiogram format. Here are some information sites on the internet:

- [ARRL Radiograms Overview](#)
- [Explanation of ARRL Numbered Radiogram Messages and Precedences](#)
- [Explanation of how to fill out an NTS form - also definitions of Q signals and an extensive prosign-proword glossary](#)
- [Counting Message Text for Net Traffic Handling](#)
- [Chapter 2: National Traffic System \(NTS\)](#) - from the ARRL "Public Service Communication Manual"; also available as a [.PDF file](#) or [print copy](#)
 - [Get the Adobe Acrobat PDF file viewer](#) - free download

Then, tune in to a NTS local net (check the ARRL net directory at <http://www.arrl.org/FandES/field/nets/>) and listen at least once to the entire net. This will give you a sense of how the NTS nets are conducted and how the operators communicate. A next step might be to practice copying the messages you hear being relayed. (You would do this without checking in to the net.) The copying process will help you become familiar with the radiogram form.

Then, when you're ready, simply check in to any local net when the net control asks for check-ins. Be sure to mention that this is your first check-in to an NTS Net. (You'll find the other operators eager to help and very patient.) Remember that your participation is always voluntary. Even if you check in, you don't need to handle any traffic if you don't want to.

And remember, NTS message handling skills are valuable in other volunteer services, including ARES and RACES. Additional information on NTS is available at <http://www.arrl.org>