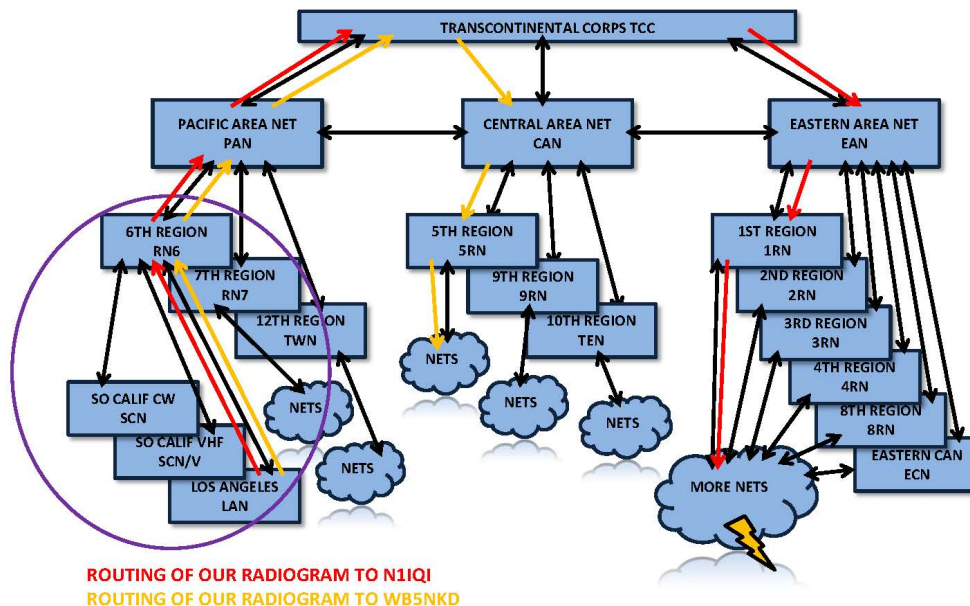


ARRL NATIONAL TRAFFIC SYSTEM



The ARRL's National Traffic System, or NTS, is a collection of methods used to relay messages throughout the U.S. and Canada, using amateur radio. Beginning about 1915, it took the form of 14 "trunk lines" spanning the U.S., staffed daily by dedicated Morse code relay stations. In 1949, the trunk lines were replaced by the ingenious system of radio "traffic nets" that continue to operate today.



ROUTING OF OUR RADIOGRAM TO N1IQI
ROUTING OF OUR RADIOGRAM TO WB5NKD

NATIONAL TRAFFIC SYSTEM MANUAL NETS

The traffic nets operate in "Cycles", which allow a message to travel from the East Coast to the West Coast in under three hours (time zone differences make it difficult going the other direction).

NTS traffic consists of short telegram-like messages, each with 1) a preamble or basic routing and check information, 2) name, address and telephone information for delivery, 3) the text of the message, and 4) signature information.

Each message is originated, possibly on behalf of a non-ham third party, by a local amateur, and given on a local or Section net to a liaison operator, who takes it to a Region net, where another liaison takes it to an Area net. From the Area net, a Transcontinental Corps (TCC) operator takes it to another Area net, where it then

makes its way to an appropriate local net near the recipient. A local ham calls the recipient, who may or may not be a ham, on the telephone and delivers the message.

RECENT DEVELOPMENTS

Since the 1990's, a digital component of NTS (known as NTSD) has emerged, using the HF Pactor mode. Transfer of a message between NTSD stations is very fast, accurate, and independent of scheduled net times. Established Section and local nets are still normally used to distribute routine traffic for delivery.

A very recent innovation in NTS is the use of "radio email" through the WinLink system. Radio email is suitable for inserting radiogram traffic into the NTSD system, and for expediting Region, Section and local traffic to the appropriate liaison for a particular net. It is also suitable for transfer of somewhat longer messages (such as ICS 213, for example) & attachments, although the baud rate is still very limited by amateur radio bandwidth requirements, especially on HF.

WHEN ALL ELSE FAILS

Many of the methods used by NTS may seem antiquated in today's smart-phone world. However, like most aspects of amateur radio, the NTS can operate outside the commercial infrastructure, using emergency power sources. These capabilities can make it extremely useful for the "last mile(s)" of communication in and out of a major disaster area. The nets are also a training ground for other emergency communicators, teaching good net operations, accurate message relay skills, and hands-on experience with antennas, equipment and propagation issues.

Many hams enjoy honing their operating skills on the traffic nets. To keep the NTS "well oiled," hams often send birthday and holiday greetings, welcome messages to new hams, and even play chess or trivia games via the NTS.

WANT TO GET INVOLVED?

Find out (from www.ARRL.org) who your ARRL Section Traffic Manager is and volunteer. Operators are always needed for FM nets on local repeaters, on CW and phone HF nets, and in the digital network.

73,
Kate Hutton, K6HTN