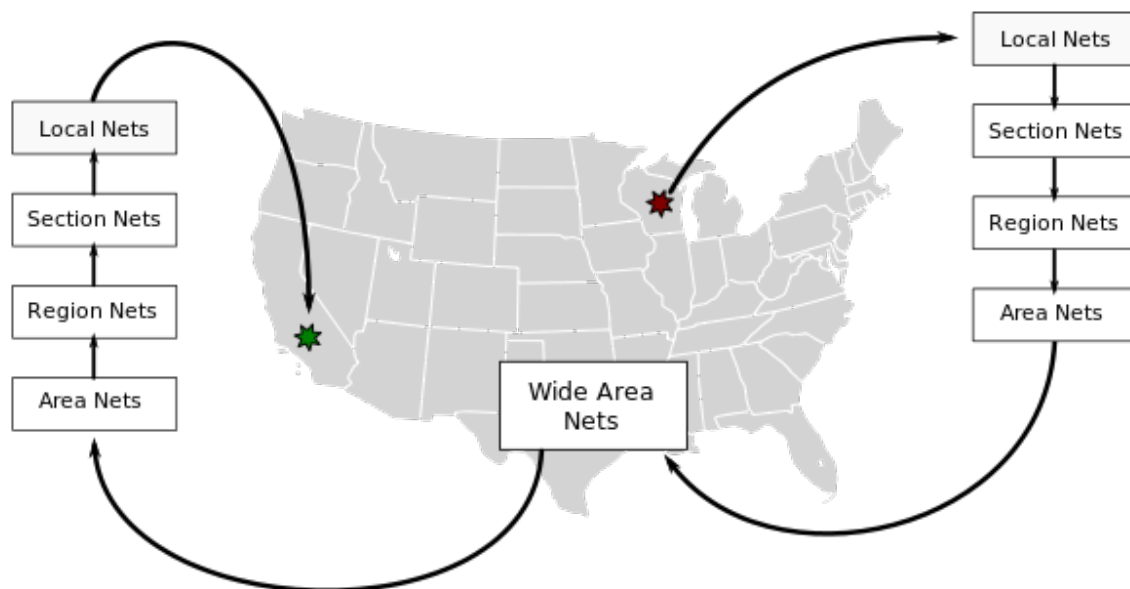




## An Introduction to the ARRL NTS & RADIOGRAMS – Woody Phillips KJ7YYI

This is a *brief introduction ONLY* and is focused at the Local Operator Level - those who originate or actually deliver the messages passed throughout the system.

- What is the ARRL National Traffic System (NTS)
  - Began in 1915 to pass messages (traffic) across the country
  - It is the “Relay” in *Amateur Radio RELAY League (ARRL)*
  - There are 3 Areas divided into 12 Sections (AZ is in Section 12)
  - Local Nets use HF and VHF/UHF to initiate and deliver traffic Voice/CW
  - Now, mostly using Digital (Winlink) for cross country traffic
  - Goal is to deliver a message within 24 to 36 hours of origination
- What is an ARRL Radiogram
  - This is the primary “traffic”. It is very much like a Telegram (see example)
  - Brief (Typically 25 words or less) messages. May use numbered pre-written texts for common messages
  - Also supports Free Form and is ICS-213 capable
- Radiograms During Emergencies
  - Gets Messages out of the affected area when other options are not available/reliable
  - Used heavily during the aftermath of Hurricane Fiona in Puerto Rico
- A Brief Demonstration
  - Why Should You Care?
  - Initiate with Winlink
  - Relay via Voice
  - Deliver via Phone
  - What if **you** want to send a Radiogram?



**EXAMPLE RADIOGRAM**

		THE AMERICAN RADIO RELAY LEAGUE									
<b>RADIOGRAM</b>											
VIA AMATEUR RADIO											
NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE				
1001	W	C	KK7ZZZ	ARL 5	TORNADO ALLEY, OK	1315 Z	APRIL 19				
TO					THIS RADIO MESSAGE WAS RECEIVED AT						
ANDY MARCONI					AMATEUR STATION						
123 ANY ST					PHONE						
PHOENIX, AZ 85032					NAME						
TELEPHONE NUMBER					STREET ADDRESS						
928 555 1212					CITY, STATE, ZIP						
ARL		TWENTY		123		212		5555			
KIM AND JIM											
FROM		DATE		TIME		TO		DATE		TIME	
REC'D						SENT					
<small>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</small>						<small>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.</small>					

1001 WELFARE HXC KK7ZZZ ARL 5 TORNADO ALLEY, OK 1315 Z APRIL 19  
 ANDY MARCONI (KK7YYY)  
 123 ANY ST  
 PHOENIX AZ 85032  
 928 555 1212  
 BT  
 ARL TWENTY 123 212 5555  
 BT  
 KIM AND JIM  
 END NO MORE

ARL TWENTY = **Temporarily stranded. Will need some assistance. Please contact me at 123 212 5555**

**Precedence:**

- Emergency [EMERGENCY] Spell out in full (Life or death). Handle as quickly as possible.
- Priority [P] – (Urgent). Handle after EMERGENCY traffic.
- Welfare [W] – Inquiry or report as to health or welfare of an individual in the disaster area.
- Routine [R] – (All other messages). Handle last.

**Handling Instructions:**

HXA Collect landline delivery authorized by addressee within \_\_\_\_ miles. (If no number, authorization is unlimited).

HXB Cancel message if not delivered within \_\_\_\_ hours of filing time; Service originating station.

HXC Report date and time of delivery (TOD) to originating station.

HXD Report to originating station the identity of station from which received, plus date and time. Report identity of station to which relayed, plus date and time, or if delivered report date, time and method of delivery.

HXE Delivering station to get reply from addressee and originate message back.

HXF Hold delivery until \_\_\_\_\_ (date).

HXG Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and service originating station.

HXI Please handle as ICS-213.

HXR Please confirm actual receipt by addressee, and notify the originator.

**ICS-213 Encoding Example:**

<https://nts2.arrl.org/form-encoding-rules/>

## **Presentation References:**

[nts2.arrl.org](https://nts2.arrl.org) - ARRL's National Traffic System

<https://nts2.arrl.org/numbered-texts/> - Numbered Texts

### **ATENAZ.NET**

- Arizona Traffic and Emergency Net meets every evening on 3.986 MHz
  - October 15 through April 14 - 3986 kHz at 5:30 PM MST or 0030Z
  - April 15 Through October 14 - 3986 kHz at 7:00 PM MST or 0200Z

### **Other Nets that ATEN Members may participate in:**

- The Saguaro 2-Meter NTS Net (Tucson) meets nightly at 6:30 P.M. (1830 MST) on the EAARs LINKED REPEATER SYSTEM - <https://www.eaars.com>
- 3985 KHZ 75 METER INTERSTATE SIDEBAND NET (75M ISBN) 0100Z
- 3939 KHZ NEW MEXICO ROADRUNNER TRAFFIC NET, (NMRR TFC NET) 0100Z
- 3857.5 KHZ MISSION TRAIL NET (MTN) 0300Z
- 3975 KHZ GOLDEN BEAR TRAFFIC NET (GBN) 0300Z WINTER, 0200Z SUMMER
- BEEHIVE UTAH NET
  - Frequency is 7272kHz
  - 12:30 PM Mountain Time - Winter 1930Z - Summer 1830Z
- PAN Cycle 2 SSB Net at 14345 kHz at 2230Z or 3:30 PM MST. This net meets on M-W-F
- Region 12 SSB Net
  - 3923.5 kHz 7:00 AM MST or 1400Z, meets daily
  - Cycle 2, 7233 kHz 3:15 PM MST or 2215Z

### **Listen in on an ATEN Net!**

This is an audio link to a 12-minute example of a complete ATENAZ net including a training tip, roll call, and passing 3 Radiograms. This is a good example of a typical net demonstrating how efficient this system can be.

*(Recorded on Feb. 14, 2024 as heard on the Web SDR in Northern Utah)*

[https://gemcom.us/Audio/websdr\\_recording\\_2024-02-15T00\\_44\\_11Z\\_3986.0kHz.mp3](https://gemcom.us/Audio/websdr_recording_2024-02-15T00_44_11Z_3986.0kHz.mp3)

**Excellent Introductory video:** <https://youtu.be/55r-dRZ21kw?si=rMLovgh6SLv2i5aw>

**Excerpt video taken from the following YouTube Video:**

<https://youtu.be/LCMDJ5Xca0Q?si=WBkY9vI6L7Mr3zQ7>