ARRL WEST TEXAS SECTION 2023 Simulated Emergency Test/Training

14 October 2023 Section Wide Activation and Information Request during the Annular Eclipse

The 2023 ARRL West Texas Section Simulated Emergency Test/Training (SET) was designed as a continuation of our exploration for the best method to activate ARES members across the entire area of the Section. The Section includes 89 counties with an area of 111,428 square miles and a diverse topography.

The design of this set was as follows:

1. At 0730 CDT a text message was sent to the phones of participants using cell phone text messaging to announce the activation and give brief initial information. This message was the first notice of the initiating event. In a real-world event this may or may not be possible; therefore, notification of the initiating event may come from personal experience due to a proximity to the event, the Emergency Alert System, traditional news sources (TV or Commercial Radio), or other modes.

   The text message gave directions to listen for a net at the top of four hours during the day on the HF rally frequency assigned in the WTX Section ICS-205.

2. The net was called at 0800, 1100, 1400 and 1800 CDT on the 40-meter HF frequency of 7.240 MHz. The general rule is to go to the assigned frequency and take steps of 5KHz down to hearing the net being called.

Directions during the net were to connect to one of the five Winlink Peer-to-Peer stations located across the Section and download the message for instructions. These included a request for information to answer three questions being asked, which included:

a. Has the eclipse caused noticeable changes to rf propagation at your location?

b. Is there a noticeable increase in the vehicle traffic on the main North-South and East-West highways? If so please identify the highway.

c. What is the average price of Unleaded, Premium and Diesel fuel in your area? Please use prices from 3 local fuel stations.

These were questions that would give information concerning the impact of the Annular Eclipse on localities along the path.

3. Participants were requested in the Peer-to-Peer message to send their observations to a common address via Winlink Telnet or the internet to finish the exercise.

A non-Winlink method for participating in the exercise was also provided using commonly available email. It was acknowledged that this might not be possible in a real-world disaster/emergency situation.

The first cell phone text message was sent to 32 participants. Due to activity on the designated 40 meters frequency, the voice net was held down 5 KHZ from the designated frequency listed on the ICS-205 to 7.240 MHz. Voice net information was also available on the 3.922 MHz Big Bend Emergency Net. There were eight participants on the 0800

CDT net, 24 participants on the 1100 CDT net, six participants on the 1400 CDT net, and 13 participants on the 1800 CDT net.

The 1100 CDT net was held on battery power from the Cactus Patch parking lot at the Commemorative Air Force Museum located on the grounds of the Midland International Air and Space Port in Midland, Texas. The site normally has a low background noise floor; however, during the Annular Eclipse it was very quiet – near zero. Propagation from across the State of Texas was extremely good with strong clean audio from Dalhart to Victoria and El Paso to Sugarland. There were known stations that are only heard in the noise that participated in this net.

The 1800 CDT net became a hot wash discussion of the experience of the participants who checked in. The area that had some visibility of the Annular Eclipse was much wider than expected with most all exercise participants able to see some of it. The Commemorative Air Force Museum was on the center line of the eclipse and provided a excellent location for observations. All stations experienced an enhancement of radio signals and propagation.

The take aways for this exercise include:

40-meter rf is currently the most useful way to communicate across the large area and diverse topography of the West Texas Section. This works well for both voice and digital communication. The voice net was efficient for providing initial activation information and directions. Digital communication using Winlink Peer-to-Peer and email (RMS and Telnet) was efficient for exchanging detailed data accurately and quickly.

In a real-world event, a voice net on the designated 40-meter frequency held at the top of the hour, would allow operators to check in to get information for what is occurring and the extent of the event. Using

Winlink Peer-to-Peer relay stations will increase the opportunity for operators throughout the Section to acquire accurate and reliable information as they become aware of a disaster or emergency event.

Disaster and emergency events in the West Texas Section very rarely widespread. The vast majority are local even though they may be devastating to the area or community affected. Our activation exercises allow the ARES in members of West Texas to practice, explore, and modify methods of notifying and activating members preparing, equipping, and training to use our radio skills to help our families, neighbors, community, and the people of our Section.

Submitted by,

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