

Radio Amateurs Demonstrate Emergency Messaging Capabilities for Red Cross, FEMA

On May 23rd I participated in the exercise. Marcia KW1U STM and Peter KC1HHO were there as well.

For an overview of the purpose of the exercise please click here:

<http://www.arrl.org/news/radio-amateurs-to-demonstrate-emergency-messaging-capabilities-for-red-cross-fema>

I found out about the exercise on May 9th and volunteered. The scenario dictated that only one station per state could participate. Each station had to be in the field, be able to operate voice and digital, not operate on commercial power, have a minimum RF output of 100 watts, and be able to operate on 80, 40, or 20 meters. The digital software required was fldigi and flmsg.

The ARRL HQ station W1AW was NCS. It was our job in the field to pass digital traffic to them. Once they received all field station digital traffic, they would then relay it to Baltimore MD at a joint meeting of the Red Cross and FEMA.



The digital software proved to be the biggest challenge initially as I had worked only with Winlink Express up to now. Peter KC1HHO and I had fldigi/flmsg running on 2 meters and were able to help each other out getting it to work. For HF I was on my own. Using dummy loads on my “go-kit” HF radio (Yaesu FT-891) and my base station radio (Yaesu FT-991) I was able to establish a lab and work out the various issues of radio, computer, and sound card settings as well as the

settings on fldigi. Google of course was a tremendous help!

As part of the exercise individual “canned” messages were sent to the participants a week before the test. Participants were instructed to use Red Cross form 5739 and populate the form using their canned message data. We were also free to add to the data. I then tested sending that message quite a few times in the lab, tweaking the setting on the radio and the Signalink for a full 100 watts out without overdriving the audio.

On exercise day I set up at my usual location at Wompatuck State Park. First business was using the bow and arrow to get the fishing line over the tree branch and pull through the lanyard used for raising the 80-meter wire antenna as an inverted V. I then set up the generator, the table, go-box, table, etc. While doing this I had a number of curious Park Rangers, staff, and DCR police come watch and ask questions. Once of the DCR officers (Paul) knows me from past years and that I set up often on Saturdays. Marcia

KW1U and Peter KC1HHO arrived at that point. Peter did a fantastic job of educating visitors about what we were doing and with amateur radio in general.

I was ready and standing by when at 10:00am W1AW called the voice net on 80 meters. Nets were simultaneously called on 40 and 20 meters as well. I was happy with how strong the signal was on 80. Massachusetts was the first state called on the net and I replied. He came back that I had a strong signal. Success part 1!



He then called all the other states on voice on 80 meters. I was able to relay for two states that W1AW couldn't hear. Now the big test – sending the message.

W1AW called my station and instructed me change to the digital frequency, wait 10 seconds and transmit. I changed frequency and re-tuned. With the message already opened and ready in flmsg I counted to 10 and clicked on the "Autosend" button. During the 90 seconds it took to transmit the message I had a sharp eye

on the SWR/Power meter, the radio's transmit power meter and the amp meter display. Doing this in a lab using dummy loads was one thing, doing this live with a lot of eyes watching was a whole different experience!

Once the message concluded I switched back to the voice frequency per pre-arranged instructions and waited. KC1CIC de W1AW, message received. Success part 2!! Relief and success at the same time. You just can't beat that feeling!



At that point I monitored other stations sending their traffic and was able to show several visitors the traffic downloading live from those stations. W1AW closed the net at around 10:30am. After getting the Jeep packed up Marcia, Peter and I headed off to lunch!

The exercise clearly showed what served agencies are looking for when being supported by ARES and NTS. Voice is good but sending forms via digital radio is what they want more of now and in the future.

The exercise also demonstrated that experience with a single digital software package is not enough. I was experienced with Winlink but had to adapt to using another software package and to become knowledgeable in its configuration and use.

73,

Greg KC1CIC
ASTM EM
DEC NTS Liaison EM