

## LIVINGSTON COUNTY EMCOMM EXERCISE December 6<sup>th</sup>, 2018 AFTER ACTION REPORT

This exercise was designed to determine if the amateur radio operators in Livingston County could contact “Primary Contacts” designated by the Emergency Manager, Darrell Wright, and the Administrator of the County Health Department, Sherry Weldon. These two officials would be tasked with the majority of emergency communications transmitted from the county. Six Primary Contacts were identified as follows:

1. Mike Thayer, Communications Officer, State Emergency Management Agency, Jefferson City, Mo. Mike is in charge of radio communications and sits adjacent to the State EOC. He has direct access to the State Agencies present during an emergency. He can provide forwarding to the Department of Health & Senior services and Highway Patrol among many others.
2. Michael Booth, SEMA Region H Coordinator, St Joseph. Mike reports to SEMA in Jefferson City but would be the closest responder with access to State assets and personnel.
3. Lesley Schulte, Emergency Response Planner for five local counties and the City of St. Joseph and Sherry’s contact for fast supply delivery. St. Joseph
4. Kelli Hillerman, Grundy County Emergency Planner. Close resource for personnel and supplies. Trenton
5. Frank Hayden, Director of Ancillary services for Chillicothe and Trenton hospitals. Medical personnel and supply resource.
6. Jodie Starr, ERC Duty Officer, DHSS emergency response system. Jefferson City, Response for major health events.

The Exercise parameters were to contact each of these contacts as quickly as we could and let them know there were no telephone, internet, county repeaters or government radio resources available in the County and to let them know how they could contact the County EOC. Local operators could use any method available to them as long as the above facilities were not included. The exercise started at 1000 and ended at 1700 on the 6<sup>th</sup> of December.

At the monthly meeting of the Livingston County ARES group on Nov 14<sup>th</sup> the Exercise was discussed and seven operators volunteered to “play”. These amateur radio operators were:

Craig Meyers, AD0TU

Joe Dietrick, KC0NOX

Charles Stirling, AD0YN

Glenn O’Conner, KFOED

Paul Hurla KDOZYA

Keith Rouse, KB4IRR, and

Mike Council, WU0G

Prior to the beginning of the exercise all the recipients were emailed a copy of the message that would be transmitted to them on the 6<sup>th</sup>. This was to provide a method of determining the accuracy of the received message.

There were a variety of channels open to the “hams” to use to pass the message:

Contact an amateur radio 2 meter repeater outside the county and ask the contact to relay the message.

Use HF radio and use:

FSQ - a simple keyboard to keyboard digital mode best suited to short messages.

Winlink - a “radio email” system available to any amateur radio operator. A message is sent via a HF radio to a public server which then forwards it to the recipients regular email account. These are as fast as permitted on ham bands and are error free. Attachments are permitted. Depending on how the message is addressed the message can be stored for later retrieval via radio by the recipient.

MESN- Missouri Emergency Service Net is a voice HF radio net that typically is not monitored and would require parties to know of the emergency in order to tune in the net.

SHARES Digital – an automated radio email system similar to Winlink primarily for government entities outside of the amateur radio bands. These transmissions are about 20 times faster than amateur radio. They may be encrypted.

SHARES voice – a net very similar to MESN except it is out of the ham bands and is available only to governmental entities. Governments are assigned operating frequencies principally based on location.

#### FINDINGS:

All recipients received the message no later than 1053!

However, it took some of them until 1700 to respond. We should add a sentence to the original message that the message would repeat until we received an acknowledgement and mark the message as return receipt requested if possible.

FSQ net worked well in passing the message. It was slow, about 4 minutes to pass the message and was not error free. It was sent to Carrollton and then relayed to Jeff City. On that day the propagation would have supported a direct connect with Jeff City. This was the first message delivered but the exercise start coincided with the weekly FSQ Net. I learned during the Phone Bridge conversation there are two other stations that run 24/7. One FSQ station and one Fldigi station. Since the FSQ Net is largely unmonitored messages could be sent to a file on the recipient machine and an alert would show on that systems monitor. MESN is also not monitored 24/7.

We should determine what stations in the area are running 24/7 and what their mode of operation is so we could include these stations in the initial notification of an event. These stations might be the first to realize the circumstances since the others might have to wait until the recips picked their email. These stations could get a short message asking them to contact whomever to activate the MESN, Star Wars Vehicle for Reg H

and the State Comm desk. The State Office for DHSS might be considered to on the “first call list” since they run a 24/7 duty Officer with a telephone. They could advise the Comm Desk to activate.

Winlink was used to pass traffic but took some time to find a strong enough RMS to receive and forward it to the recip’s email inbox. These connections change with the propagation. The messages that were received were error free. One operator got 8 messages to the same recip without an Ack!

MESN was not tried by any of the operators so it is unknown as if it would have been activated without a direct communication from one of the Admins. This would have been a voice connection and I think all operators saw this as a last resort.

SHARES HF was used to pass the message to all six recips beginning at about 1050 and delivered about 1053 to the recips email mailboxes. All messages were error free and sent unencrypted. This is very similar to the Winlink system except the RMS is local, which meant any local HF radio could most likely connect and once delivered to the RMS the SHARES system calculates the route and frequency without operator intervention. It took the operator less than 5 minutes time to send and forget all six messages.

In order to save time in an emergency all Livingston County ARES operators should receive a directory of “Primary Contacts” information so that a local simplex net could be quickly established and assignments issued to participants. This directory should also include the stations operating 24/7 and their modes and frequencies and call signs. Livingston County contact information should be included. A short description of the contact, modes of operation and expected action to be taken by the recipient should also be included. For instance: a call to XX0WW a 24/7 FSQ station would result in a file being saved to that station and an alert posted to its monitor. The file would contain contact info to “wake up” the FSQ net, MESN, SEMA in Jefferson City, etc. This would allow first notices to go out from a number of operators simultaneously to predefined recips even before the station at the EOC could be activated.

#### EVALUATION:

All of the recips indicated the Exercise was a success and thanked us for putting on the show and including them! There were several others involved with the Exercise but not on the list that are involved in Emcomm that are interested in the results so I expect to see some follow on activity with this sort of test.

We had 4 out of the 7 that actually got messages through. WU0G contacted all 6 recips on SHARES; AD0TU contacted 2 recips on FSQ and Winlink (both multiple times) and KFOED got his assigned message through on Winlink as did KCONOX with his 2 assigned messages both on Winlink

KD0ZYA increased the group’s knowledge about the MOSWIN radio system, he is the only one familiar with it as a result of the exercise! He didn’t get a chance to use it for the Exercise though.

AD0YN got his Signalink and FSQ Call program installed and working as a result of the exercise but ran out of time before he could try to get the message through.

I think the Exercise had a very beneficial effect on how Livingston County Emcomm operations will be handled in the future and provided valuable firsthand experience in getting the message out to the operators.

A great success I think, congratulations and a pat on the back to all that participated.

Mike Council, WU0G, NCS524 & NCS565

ARES Emergency Coordinator for Livingston County

SHARES HF Sysop for Livingston County EOC

December 13, 2018