

# WINTER FIELD DAY 2019

## After Action Report

[I used Brad's email with minor edits as the starting point, as it's comprehensive and coherent, so the bulk of this is in Brad's voice. Input from other members is enclosed in brackets. Eric, many thanks for the checkoff list form. --CJ]

These were my [Brad's] observations, if they help:

### RADIOS

\* The Yaesu FT-950 radio was far too complicated for emergency use, several of us having to refer to the manual and google items that weren't evident in the manual since they're labeled by Yaesu differently. It appeared as if it wasn't putting out maximum power, so we did a FULL RESET. It also presented an issue a couple of times that we had encountered in the past, per Tim, where it would simply go dead. It comes to on its own, eventually. Thankfully, this isn't our emcomm radio, the 7300 is.

\* While the ICOM 7300 is much more user friendly, it did still impose a learning curve. Perhaps a training for the club during our meetings on how to operate the radio from the touch interface, and adjusting CW key settings and common filters, would be helpful. In practice, it eventually became clear, with the help of a googled manual. I don't think the manual for either radio was in the trailer.

[From Pete Donovan KC1XT:

The IC-7300 receiver was (I think) badly overloaded when in CW mode by simultaneous SSB transmissions from the other HF radio. This was evidenced by appearance of the "OVF" indicator on the 7300 display and a dramatic quieting of received signals. Same band was truly horrendous, but even moving up or down one or two bands was still a major issue. I was basically unable to copy reliably any stations more distant than K1OT. I have read somewhere in the past that the 7300 has a reputation as not performing real well in a field day type environment. On the other hand, I did not hear that any of this was a problem when both radios were operating SSB. Anyway, if I had to do it all over again I would either try to get the 7300 and its antenna as far away as possible from SSB transmissions, or just forget about operating CW altogether while there are other transmissions going on. I guess maybe some heavy duty contesting band pass filters might work, but that seems like a lot of effort and expense.]

[I had brought a spare radio for emergencies, and never thought to try it out to see if it ameliorated that problem. If we encounter the same problem in future tests, we might try substituting a different radio. --CJ]

## POWER

\* Frost accumulating within the propane connectors and regulators due to the high volume draw seemed to be the issue. Rory said we had to scrape out the connectors on occasion. I overheard folks talking later about the propane challenges: George W1QUI and Chris KC1GMX state that propane does not perform well in the cold. The exchange from liquid to gas slows, and the low surface area further reduces the exchange rate. Our options are to install a hood or compartment for the tanks with a high wattage incandescent light bulb or heated blanket to keep them warm, maybe get a larger circumference tank for more surface area, or move to gasoline and a wheel-away generator.

[From Ben Bruns KC1HBL:

Rich, Stephen, and I have been speaking about the propane issue. The only time I saw the tanks changed there were not regulator issues. It seems to me that the fuel demand from the generator outpaces the ability of the tanks to gasify in cold temps. Larger diameter tanks are needed for more surface area or the generator should be switched out for a gasoline model and located remotely from the trailer to eliminate carbon monoxide and noise issues.]

[David Feeney WN1F also said that the issue was the inability of the propane to gasify quickly enough in cold temperatures due to lack of surface area. The suggestion to move to a gasoline powered generator makes sense on the surface, but a single operator might have trouble moving the generator alone. --CJ]

\* When the power goes out, there are no lights. We had an LED flip switch that looks like it fell down from wherever it was Velcroed. There should be LED lighting that runs off the battery system, like the USB and DC connectors on the wall. Flashlights mounted at each exit would also be helpful.

[The trailer computers also need a UPS for power outages. --CJ]

\* One of the USB outlets, to the left of the Yaesu, does not work.

\* Wall outlets don't work unless a light switch is flipped. Signage was inadequate, and devices didn't charge, including the hotspot, until I think Rory came in to flip that switch. Maybe a label next to each outlet that points the operator to the switch?

\* The hotspot didn't have its charger cable. I borrowed my cellphone charger for it.

## ANTENNAS

\* We learned that another antenna close to our temporary antenna, even in a different orientation, would cause 17:1 SWR. Listening to our peers may have saved some time in raising the temporary end-fed.

\* A cord reel is required for anything longer than 10'. It took 6 people about an hour to untangle the 240' 160m end-fed.

\* Safety concerns arose when hoisting a heavy mast over our heads on the platform atop the roof of the trailer - which moved around on its suspension. Ben recommended we extend the platform across the roof to make it easier to move around up there. In an emergency, we want one to two people to be able to raise the antenna. Rory recommends moving to a G5RV on an extendable pole. Sean recommends a Buddypole. Frank mentions a couple of other options I can forward, which he and Tim have used.

[From Rory KB1PLY:

If we continue to use the rotatable dipole, we need a different method of raising it, maybe a winch on the front of the trailer.

EMA needs two [2] 35'-40' mast kits for antennas. Also needs 400' of coax in two [2] 100' lengths and four [4] 50' lengths.

There is a need for a G5RV antenna, covering the 80m band, with attached guy ropes that one person can deploy off the side of the trailer.]

[From Ben:

I think that a mast deployable by one person is also a good idea as well as the g5rv. However I know the standard model g5rv has some issues on 160 if we are planning on using that band.]

[As one of the bodies on top of the trailer erecting the mast we used, I can vouch for a need to move to a safer, more lightweight configuration usable by one or two operators. --CJ]

#### TRAILER EQUIPMENT

- \* No safety equipment: reflective vests, hard hats, harness for the above antenna mast raising
- \* Trailer didn't have any copies of the band plan until Eric went wild with the printer.
- \* Does anyone know what 40m and 80m frequencies EMA would have us use in an emergency? I didn't see that info posted anywhere, like it was at Gray Weather Service for SKYWARN.
- \* Manuals didn't appear to be readily available for the equipment in the trailer.
- \* There didn't appear to be any notepads in the trailer
- \* No forms for emergency traffic

[A radiogram form pad is in the Bunker, but was never moved to the trailer -CJ]

- \* Wall hooks for jackets near the door or in the "coat closet" at the front
- \* I thought we were going to monitor the K1MV repeater and 52 Simplex to lead people in, but the VHF radio I stumbled across at the end of the exercise was never turned on. My HT was on and nearby until it died. I need to get a spare battery.
- \* May want to label to identify exterior doors: EMA and Radio Room. While not an issue during the exercise, it might help reduce interruptions to communications from people entering the wrong door to speak with EMA in the front.

[From Rory:

The trailer needs to have the decking on the roof replaced and extended down both sides. The cover to the AC unit on the roof is cracked.

Safety equipment in the trailer should include hard hats, reflective vests, and flashlights.

A lightweight 4' stepladder, maybe mounted on the inside of a door, would be useful for many functions.]

I think this about covers most of it.

73

Brad

[Thanks for your input to Brad, Ben, David, Eric, Pete, Rory, and anyone else I might have neglected to mention. --CJ]