

# CARS 2022 Year in Review



**January** – Meeting canceled due to weather

January 19 9:40 PM John N3CUP and Rich KR3B visited RT27 on a cold blustery snowy night

-RT27 440 repeater in a state of constant key-up

-Wind driven snow inside the building



## February

WW3S placed one of the VXR-7000 repeaters  
at RT27 set up for 147.21/.81

VE: 3 people passed

Aiden from Oil City – General

A Corry man – Technician

John KC3RQH – Extra

Treasurer's audit completed

## March

- Repeater Committee meeting March 5<sup>th</sup> A decision was made to take down the wooden pole at RT27 and erect a tower
- Jim K3TLP made a donation to the club to pay MobilCom to remove the 440 antenna and feedline from the Titusville water tower
- March 15 – Barry WA3GSH met MobilCom at the Titusville Water Tower for the removal of the 440 antenna and hardline



# Titusville Water Tower

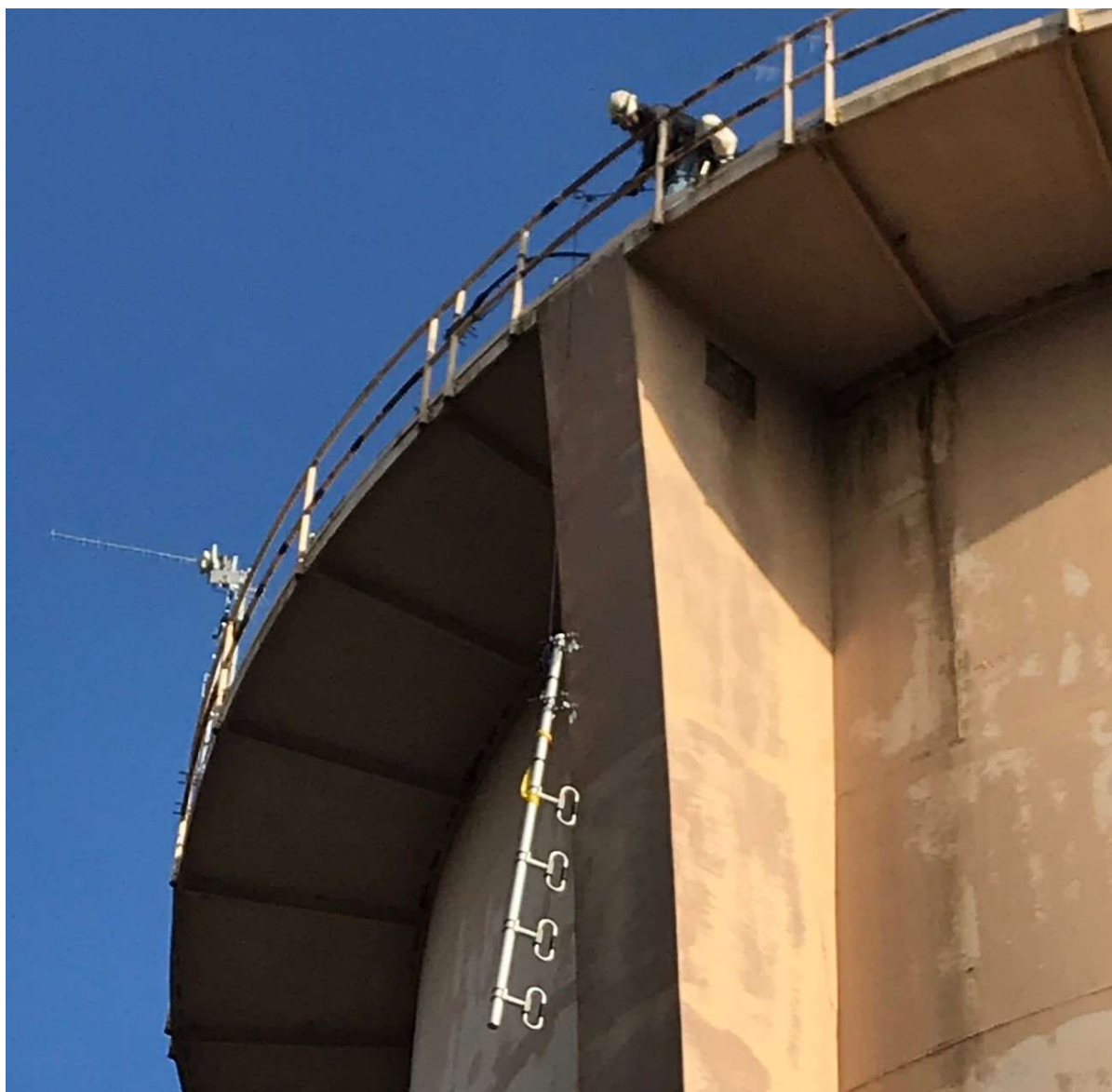


MobilCom  
removing  
the Sinclair  
440 Antenna





Lowering down







The 7/8" hardline from the water tower.

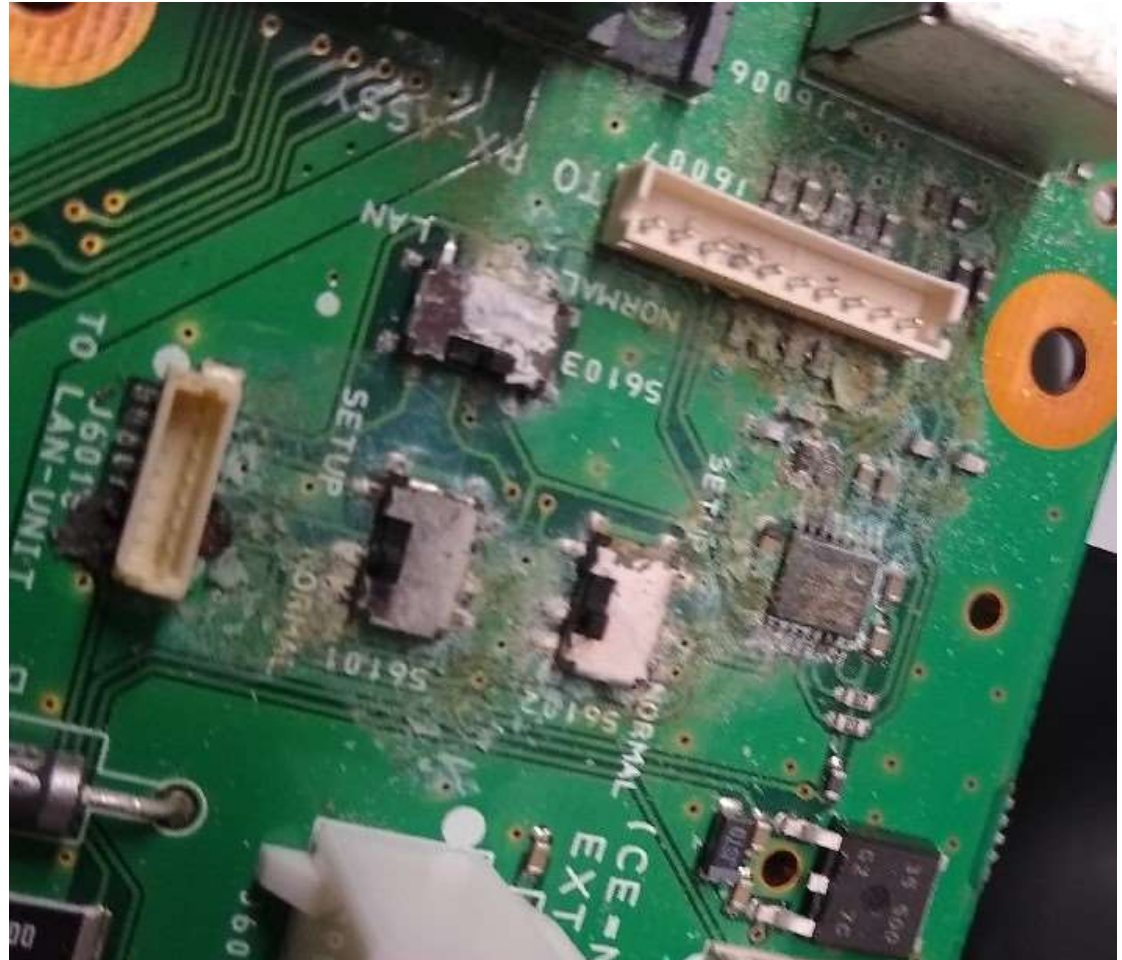
This was used at RT27 on the new tower



# March

- March 16 - Jamie WW3S updated the firmware on the undamaged DR2X and discovered damage preventing upgrade on the other

WW3S: This is why the firmware update will not work. I'm going to try to clean it up..... looks like moisture, but I don't understand how it got in there, as there are no holes in the cabinet near this board..... I would say mouse pee, but, again, there are no openings large enough for a mouse to get in....





# March

- Norrisville

John N3CUP and Barry WA3GSH installed a shutdown controller and a 2m 5/8 wave vertical on the cable bridge behind the repeater shed for the new shutdown controller John built.

Controller allows tones to be sent through the 145.13 repeater to allow shutdown

- Jamie discovered the 145.13 repeater was 500 Hz low.

# March

- March 28 – Jamie WW3S reported that the pole is down and cut up at RT27 as of that morning



# March

- March 28 John N3CUP visited RT27 and said there is no electricity at the site. WW3S reports that a guy wire came in contact with one of the conductors

Severed phase





# April

April 2 - Site visit by Barry WA3GSH, Mike N3QQH and John KC3RQH. Removed all the hardware from the pole sections laying on the ground. Stacked the pole sections in a pile.





# April

April 2

Staked out the corners for the new concrete tower base.

Multiple anonymous donors made it financially possible for the club to fund the digging and concrete for the tower base



# April

- April 4 – site visit by John N3CUP confirming we now have power at RT27
- April 15 – John KC3RQH Built additional guy tower support bracket using factory bracket supplied by Jamie WW3S as template
- Barry WA3GSH presented a program and spreadsheet of costs for a project to install a tower at RT27. Rough costs were around \$1500
- Motions were made to pay for digging of the tower base and for the concrete for the base
- April 20 – John KC3RQH Construct concrete reinforcement cage from purchased rebar for route 27 tower footer





# April

- April 22 -  
Site visit by  
WA3GSH  
and WW3S.  
Today the  
hole was dug  
for the tower  
base.



# April

- VE candidates from Titusville, Greenville, Girard and Guys Mills attended. Three passed the Technician exam. One did not pass for Extra
- Jim K3TLP passed the torch for repeater trustee to Mike N3QQH with Cliff KB3UVO as secondary
- SKYWARN training April 27<sup>th</sup>.



# April

- April 29 Site visit by WA3GSH, WW3S, KC3RQH, KR3B.

Final prep of the hole; framing for the concrete; rebar cage made by KC3RQH set into the hole. Jamie went and got a commercial pump to suck out the water – the hole was completely Full!

This is Jamie before he Went and got the bigger Pump!





KC3RQH  
Fine-  
tuning the  
hole





WW3S and  
KC3RQH  
dumping  
gravel in the  
hole before  
setting the  
rebar cage





Cage in  
place and  
sitting on  
bricks and  
blocks to  
keep it  
within the  
final  
concrete  
shape





John KC3RQH  
fastening the  
anchor bolts to  
the tower  
baseplate.  
That's WW3S  
with the shovel





## May

May 2 - Day of the concrete pour:  
WA3GSH, WW3S,  
KC3RQH, N3CUP.  
When we arrived  
the hole was full of  
water and Jamie  
again rented a  
pump





KC3RQH  
vibrating the  
water to the  
surface of  
the pour





KC3RQH  
sinking the  
baseplate  
into the pour





KC3RQH doing the final finish. N3CUP is behind him. Jamie is to the left shoveling excess concrete into the hollow spaces of the shed foundation blocks. N3CUP was helping with the wheelbarrow of extra concrete





Pad after  
final finish  
tweaking  
and level-  
checking the  
baseplate





## May

May 5 – John KC3RQH Remove forms from route 27 tower footer. Later, WA3GSH made a quick site visit to check on the curing of the concrete – all looked good.

May 9 – WA3GSH RT27 visit to measure guy anchors to make equalizing plates

May 11 – WA3GSH made a visit to an anonymous donor to pick up two sections of Rohn 25

VE – a Titusville man passed for General

## May

- May 24 Site visit to install 30 feet of Rohn-25 tower, along with the 440 antenna we got from Titusville, and the 2m G7 vertical donated by Jim K3TLP. The Work Crew in attendance: WA3GSH, WW3S, N3CUP.

The tower would be tilted into place at a future Date.

WW3S fastening the baseplate bolts while N3CUP steadies the tower





May 24

WW3S and  
N3CUP  
fastening  
and  
checking all  
30 feet of  
tower





N3CUP and  
WW3S  
attaching  
the  
mounting  
bracket for  
the 2-meter  
antenna.  
The bracket  
was made  
and donated  
by Russ  
KB3CIT





John N3CUP fastening the 2-meter antenna donated by Jim K3TLP. John assembled the antenna just prior to this picture





## May

May 25 Installation of the coax cables on the tower. Installation of the grounding system by Russ KB3CIT. And erection of the tower.

Work Crew:

WA3GSH, WW3S, KC3RQH, KB3CIT, N3CUP, N3PKJ.

WA3ZSC took video of the action.

The 147.21 and 444.075 repeaters were on the air at the completion of this Session. **WW3S** and **KC3RQH** pictured





KC3RQH,  
WW3S and  
N3CUP  
making  
final tweaks  
to the 2-  
meter  
antenna





Russ  
KB3CIT  
hammering  
in one of  
the ground  
rods, with  
N3CUP  
assisting





KB3CIT  
fastening  
ground wires  
to ground  
rods. Russ  
donated the  
wire and  
some of the  
parts for the  
grounding  
system.  
Jamie and  
Barry  
donated the  
ground rods





SUCCESS! Two antennas  
and 30 feet of tower upright  
and on the air!

440 Antenna





# June

- June 2 – John KC3RQH Repair missing pieces of lattice on Rohn 25 tower section
- Rich KR3B and Jerry WA3ZSC updated the control software at the 911 center for the Yaseu FT-991A transceiver
- June 16 - John N3CUP stopped at the site and checked the guy wires and grips – all looked great. This was ahead of some expected bad weather.

VE – two people passed the Technician examination



# June

- June 25-26 Field Day!



**Field Day Captain Mike N3QQH making adjustments**



The trailer –  
location of the  
HF CW station  
manned  
mostly by  
Jamie WW3S.  
A second HF  
station for FT8  
also up front.  
In back is the  
VHF station  
that ran FT8,  
mostly on 6-  
meters





**KR3B**

**KC3RQH**

Running  
the HF  
SSB  
station





**WW3S**

Running CW for  
A nice score!





**WA3ZSC**

Great  
concentration  
running FT8 on  
6-meters!





**July**

July 4 –

WA3GSH  
trailer cleanup

Dirty wall in  
back



July 4 –  
WA3GSH  
trailer  
cleanup

CLEAN  
WALL

All the walls  
were  
cleaned –  
this is just  
an example





# July

## Ernst Trail Run July 16

VE – one General exam passed

July 24 - Lowered the tower and added 30 more feet of Rohn 25. Work Crew: WA3GSH, WW3S, KC3RQH, N3CUP, WA3ZSC (video), N3PKJ, KB3CIT, N3QQH, KB3UVO, And Jamie's son Jim W3JST who was a big help.

N3QQH putting  
slings on the  
tower in  
preparation for  
lowering

KC3RQH and  
WW3S in the  
background





WW3S  
and  
N3CUP  
fastening  
three  
additional  
tower  
sections  
with  
KC3RQH  
steading  
the tower





WA3ZSC  
setting up  
video and  
still  
cameras





N3PKJ,  
WW3S and  
KC3RQH  
lowering the  
tower in  
preparation  
for adding  
the  
additional 30  
feet.





KC3RQH  
and KB3CIT  
bolting up  
tower  
sections.





N3PKJ,  
N3QQH and  
KB3UVO  
assembling  
the Falling  
Derrick used  
to erect the  
tower.





N3QQH,  
KC3RQH and  
N3PKJ setting  
the lines and  
derrick and  
preparing to  
erect the  
tower.





KB3CIT  
fastening  
the  
grounding  
wires to the  
tower legs,  
with N3QQH  
in the  
background.





KC3RQH  
and WW3S  
securing the  
turnbuckles  
on the guy  
wires





All sixty feet finally  
upright after a few  
harrowing  
moments getting it  
there!





## August

- VE – Titusville man passed for Technician
- Rich KR3B attended the LEPC meeting

## September

**Norrisville** - September 16 – John N3CUP, Fred N3QFA, Jamie WW3S, Barry WA3GSH – cut and reinstalled the two hardline cables on the tower that feed individual 2m vertical loop antennas used on the 147.03 repeater. Brought the cables through the CommScope cable entrance port on request from Joe Vilkie to clean up the excess cables lying on the ground – and to tighten up for bug protection.



## October

- Jim K3TLP got a quote for siding for RT27 from JD Contracting for \$2300. Jim was a major donor for the funding of the siding project
- Simulated Emergency Test was held
- Mike N3QQH and Cliff KB3UVO volunteered at the Oil Creek 100
- VE – one young man passed for Technician
- October 26 – N3CUP, KR3B, WW3S Fairgrounds site visit to swap out VXR-7000 that was experiencing some issues



## **November**

November 2 –  
RT27 visit by John  
N3CUP, Jamie  
WW3S, John  
KC3RQH and  
Barry WA3GSH.  
Installation of the  
old Motorola 440  
repeater cabinet  
that lived for a  
long time on Radio  
Tower Hill. 440  
repeater back up  
and running today





- November 2 – **Norrisville** visit - John N3CUP, Jamie WW3S, John KC3RQH and Barry WA3GSH. Relocate the DR2X from RT27 that had been the 440 repeater and set it up for 147.03
- November 6 Repeater Committee meeting at house of N3CUP
- November 9 - WW3S orders ARCOM controller for Fairgrounds VXR-7000
- VE – one person passed for Technician



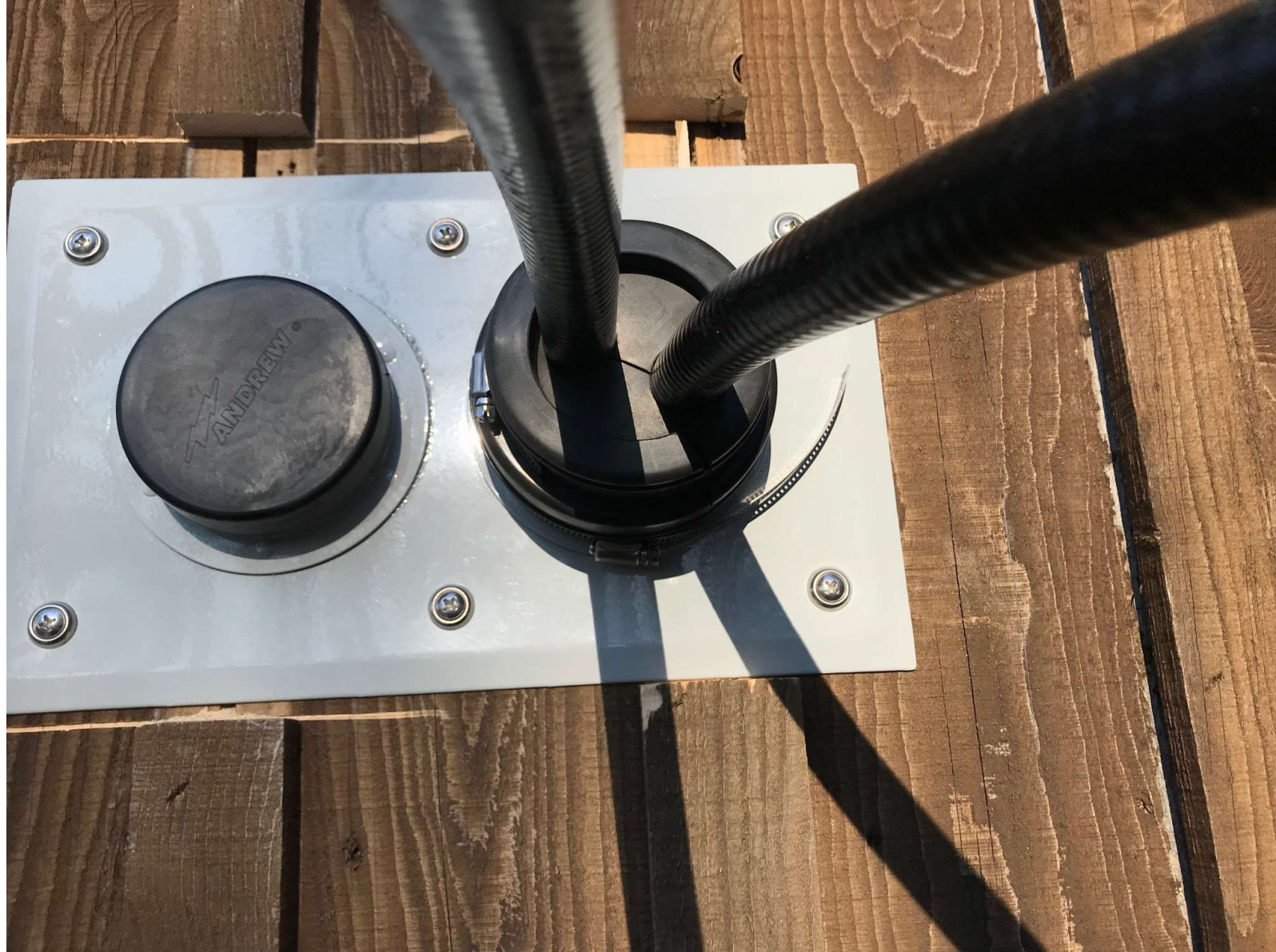
November 23<sup>rd</sup>

WA3GSH and  
KC3RQH  
installed  
the CommScope  
cable entrance  
Boot on the side  
of the  
building





Close up of the CommScope cable entrance panel. This is an excellent way to bring in cables and keep out weather and bugs





- Also installed the KB3CIT yellow safety sleeves on the six guy wires
- Added safety wires around the turnbuckles.



## November 23<sup>rd</sup>

- Tested both repeaters:

24 watts output to the antenna from the Motorola 440 repeater

Around 40 watts output from the DR2X 147.21 repeater into the duplexer

- November 23<sup>rd</sup> - WW3S sold the NIB CAT-1000, awaiting payment
- November 26 – Jamie WW3S went to RT27 and removed the DR2X 147.21 repeater and replaced it with the VXR-7000 that had a reboot problem.
- November 30 - John N3CUP stopped at RT27 to check after the wind and rain the previous day. Found wet walls inside.



## **December**

- December 1 - WA3GSH and N3CUP visited RT27. Loaded up the two 10M repeater cabinets to take to John's house. All else looked good.
- Jamie WW3S DR2X: replaced the board that had been damaged from the snow event in January, and updated the firmware
- December 7 - Contractor on site today. All the siding has been installed along with a new door! Work crew working on testing the weather radio (with the VXR-7000) that will be installed at the Fairgrounds: WW3S, Rich KR3B, N3CUP. Testing CAT weather radio.





Jamie WW3S and Leonard WB3AYW collaborate to sell two old sets of duplexers stored in the old shed at RT27

December 10 - John N3CUP installed a concrete block step in front of the door at RT27 –plus a thermometer with humidity gauge on an inside wall.

John KC3RQH elected President, Jim K3TLP moves to Director along with Rich KR3B and Mike N3QQH

Annual Christmas Party



## 2022 Year in Review Final Wrap Up – Tireless Efforts From Others

- **Jerry WA3ZSC** – Running the nightly 2-meter traffic Net
- **Jamie WW3S** – Running the Sunday ARES net
- **Jamie WW3S** – Handling the Treasurer's duties
- **Allison KB3RKH** – Handling all of the duties as Secretary
- **John N3CUP** – Keeping everything on track with the repeaters as Repeater Chairman
- **Mike N3QQH** – Our hard-working Field Day Chairman
- **Jim K3TLP** – Our President off and on for many years, and a major donor to the RT27 site, including the 2-meter antenna, the 440 antenna and feedline, and 2/3 of the funding for the siding for the shed. We are indebted to him for his generosity!



**- And Last but certainly not least: Rich KR3B and Cliff KB3UVO** for all of the many hours working on programming the CAT-1000 controller and transferring knowledge from Rich to Cliff. And for the ongoing efforts learning to program the Arcom RC-210 controller soon to be at the Fairgrounds.

**I'm sure I've forgotten others, so blame me for that oversight!**

B.H. Capell WA3GSH 1-17-2023