

## **Repeater History April 2019**

Here is a little review of the history of our repeaters over the last couple of years, when and why old equipment was removed or replaced and what we have gained.

The old repeaters were GE commercial units that had been retired from commercial service a long time ago. They were decades, MANY decades old. Ken Robinson was our repeater guy for some time and he had extensive experience, knowledge , test equipment and spare parts for these repeaters and managed well to keep them up and running. There were occasional down times however and it was necessary for him to make runs up the mountain to fix something; it was after all very old equipment. When the time came for him to move out of the area he became concerned for the club as it would be difficult at best for us to keep this equipment up and running since we lacked anyone to adequately replace him. It was then that he brought up the Yaesu repeater program that would afford us new machines for just \$600 each. That was to me and followed by most of the club to be a wise and prudent move forward, and the club voted to do that, and we purchased 2 Yaesu DR-1X repeaters.

When the new repeaters arrived Ken (I and helpers) installed them at the site. They were simply placed on top of a cabinet that held the old 440 machine and we cabled the new 440 one into that cabinet for the 440 duplexer. This allowed the old machines to technically be available as a kind back up if needed as it was better than nothing, and gave us a good excuse to not have to haul the old stuff down the mountain.

Everything probably could still be that way today but a new manager took over the site when George W3KPT retired, and this new guy decided to assess the building space, and inventory the tennents located there. I need to admit that there really wasn't much space for additional paying customers to conveniently locate should any want, and us amateur guys were occupying 4 "footprints" and were technically non paying tenants. Several of us along with George W3KPT went to the site where we identified 4 cabinets that were not amateur but commerical. 2 or 3 of these were abandoned we discovered and were later removed by the station making some room. As the club was taking up 4 cabinet/rack spaces we knew it was in our best interest to reduce our footprint in the building too. The 4 spaces we were occupying were the rack for the 900 repeater, a cabinet for 2 meters, a space for the 2 meter duplexer and a space for the 440 machine cabinet. The Yaesu repeaters were on the 440 cabinet and a digipeater on top of the 2 meter cabinet. We moved the digipeater to on top of the 440/Yaesu cabinet and removed the unpowered old 2 meter cabinet. This reduced our footprint by 25% and showed our willingness to work with the station, and make one more space available for a paying customer.

Time passed and as we waited to see what would happen next and I made plans to reuse the cabinets if we indeed needed to pay or move from the site to somewhere else. Things remained quiet and in the meantime we decided to remove the troubled digipeater and further reduce the unused equipment at the site by removing it also. A rack shelf unit that I donated was used to house the Yaesu repeaters and 440 duplexer. The old 440 cabinet and electronics were then removed. Everything at the site then was active, no dormet equipment and we were down to a clean appearance and using little power.

In looking forward to the clubs future needs discussions were held with club officers and Ken Robinson. The old GE electronics were very worn out, there was a lot of corrosion on some of it and repair parts were getting extremely had to come by. The consensus by all was simply to retire the old electronics but retain the cabinets, it just didn't make good sense to keep anything as backup. Looking into the value of the electronics we found that we would likely get very little for it either on e-bay or hamfesting and we asked Ken Robinson if maybe he could use it. He stated that he could as his area still has a few old machines on line and this could help in keeping them online until they are replaced thus buying them some time. So we put it to a club vote and it was agreed to give Ken the old stuff as thanks for all he has done for us. I then stripped out the electronics and met with Ken handing the old stuff off. I think this was the best thing to do, I don't know anyone who would be willing to put in the effort to try to get any money from selling this stuff that would be likely to not net even \$100. And actually the cabinets we still have are actually worth more than the electronics anyway!

Where we are on this date is I am working on cleaning up the 2 cabinets and attaching them in a stacked configuration, also providing for a couple of things so that everything we have including the 2 meter duplexer will be housed within one single cabinet. I am planning on reinstalling everything in the months ahead into this cabinet and when done we will free up yet another floorspace footprint when we pull the duplexer into the common cabinet. Everything then will be housed in solid and protective containment, and should we ever need to move it it is all together.

Where we are today is in a very good place. I expect that we should yet get many, many, many more years out of our existing repeaters. We have decided however to upgrade the Yaesu DR-1X 2 meter repeater to a DR-2X model with several enhancements over the old. This will easily fit into the cabinet and then the unpowered DR-1X can remain and be available as a spare unit for either active repeater should it fail and need to removed for repair. The mission of our club to have an excellent repeater presence and low down time is greatly realized!

TNX and 73  
Ken W4IJK April 2019