

Teamwork at W4AAW Remote Multi-Multi – Mike W4AAW

Last May, the team of operators at K4VV's fabulous contest station learned that, due to owner Jack Hammett's health issues, the station would close. The team of operators felt some richly deserved pride, after establishing the first Totally Remote Controlled Multi-Multi contest station. An ARRL article, "Nobody in the Shack," told how the team had uniquely climbed to a top-ten finish in the ARRL DX CW and it was followed by another top ten finish in the ARRL DX SSB.

The team, with operators as far flung as Uruguay, New Hampshire and Missouri began looking for a new station to operate. Happily, they accepted the offer of my station, W4AAW (formerly WØYR).

W4AAW, set up for M/2 operation, would need to expand to M/M capabilities. Thanks to incredible teamwork, the expansion is now complete and efforts in the CQWW CW test and other frays have yielded good results. Most of the TeamW4AAW members are active PVRC members. The whole team made generous contributions of money, parts, equipment, physical labor and expert technical guidance. Without these, nothing would have happened.

First, the Internet connection received a major upgrade and we installed a new VPN-capable router. Next, we built the (Top Ten Devices designed) antenna switching system with lockouts and harmonic attenuation stubs. The team furnished parts and money.



To minimize inter-station interference we needed to separate the various antennas. Team member John W4AU donated an LM-470 tower (which I had given to him years before when we were planning to downsize). Dusty K3WC, an authority on ground-bound towers advised John to leave the tower on the ground and John did. John decided he would not erect the tower and asked if I would like to have it back. He even organized a tower-moving party from among team members. They (re)delivered the tower to the W4AAW QTH.

Then, teamwork even more incredible began. The excavating, re-bar cage construction, forms building, pouring of fifteen tons of concrete, tower erection, and completion were all completed, because of generous donations of money and backbreaking work.



Clockwise from top left: Matt Hackett's crew clears the way; Matt digs the hole, N4PD, W4AAW, N1M\RM, W2YE confused

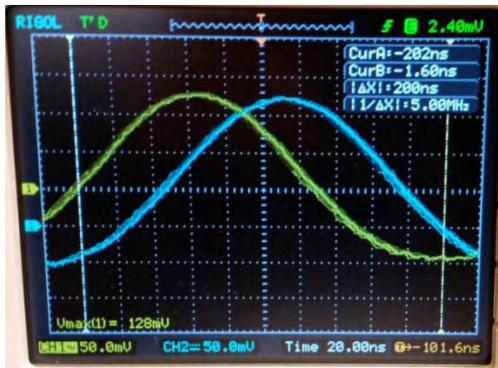
Matt Hackett owns Mobile Equipment Services (610 952-7255). He has done tower-base installations, trenching, welding and bucket truck work for PVRcers W5ODJ, NC4S, W4AAW, W4AU and others in Northern Virginia.



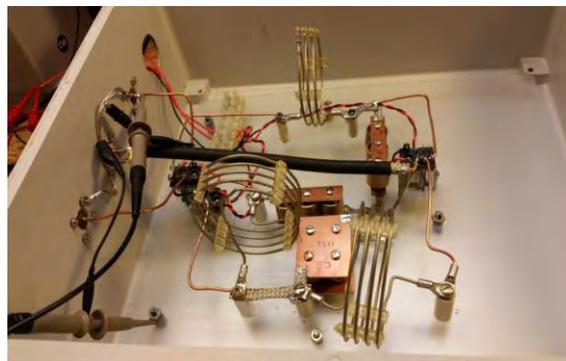
Clockwise from Top Left: W3UL checks: W2YE, W4AAW, still confused;
 N1RM smooths 15 tons ; Tower 3 coming up!

It is truly rewarding to issue a call for help and watch as team members readily donate financially, with materials, or, with their physical labor, to get things done.

Other projects in the W4AAW expansion enjoyed the same level of teamwork. Gary-NC4S did a masterful job of building the Hybrid Coupler for the phased 80M array. ON4UN's *Low Band DXing* shows the coupler on page 11-38. It requires very exact component values. Carelessness results in a useless network.



Gary's careful craftsmanship resulted in the precisely 90-degree phase shift required for the phased array to work correctly.



Both Gary and Bill W3UL volunteered to build all the preamps, feed line chokes and phasing box for the new YCCC 3-inline receiving array from DX Engineering. Their meticulous work resulted in uniform and perfectly constructed units. Gary cut all the RG6 delay lines to very precise lengths, thanks to his well-equipped workshop/lab.

TeamW4AAW has very special needs in the Internet Technology field. Our "IT guys," John K3TN and Rick N1RM produce the magic needed to maintain the Virtual Private Network and complicated hook-up to N1MM+. Rick has even worked with the N1MM+ people to bring about some changes and improvements in the networking of the application.

There are many other examples of "Extreme Teamwork" at W4AAW. If we had a credo, it might be the one Harry Truman and Ronald Reagan liked to use: "You can get a lot done if no one cares who gets the credit."