As I write this, Sweepstakes Phone has just finished and the post-contest reports are rolling in on the reflector. I don’t have the exact numbers on the logs we submitted but we had a fabulous turnout on CW and if the comments (“Boy, you guys are busy down there!” from a guy up in EPA) I heard on Phone were any indicator, I think we had a pretty good turnout there, too. Thanks for getting on and making some noise. We just sent the NCCC Challenge Cup to the Society of Midwest Contesters. So, they’ll be looking to defend their hold on that in the January NAQPs for sure. Let’s show them we want it back!

With the emphasis on contest scores, it’s often easy to overlook the other important contributions our members make to the Club. As many of you know from reading the reflector, Ed, N3CW, and Henry, K4TMC, recently arranged a group purchase of a dozen mostly-complete AB-621A/G “rocket launcher” masts for PVRCers. This is truly a rare event these days as the surplus supply of these masts and the similar AB-577s completely dried up 15 years ago or so. Ed jumped through hoops to get these back to PVRC country - both as a recipient and as President of the Club, I’m grateful for his efforts. I’ve already caught wind of a number of different proposed solutions for the missing components. Thank you to all of you who so freely contribute your expertise and networks to the rest of us.

This year has been particularly tough for me to get on the air with about double the amount of work travel I’ve had in years past as we roll out some new instrumentation. My last three “DX” trips (KP4, G, and OX) didn’t even result in getting on the air. I’m really hoping to be on the air more this winter from home.

See you in the CQ WW pileups and beyond… GO PVRC!

73, Ethan, K8GU
If You Ever Wondered What That Station Looked Like: NØNI via KJØD

PVRC Officers:
President: K8GU Ethan Miller
Vice President: W3LL Bud Governae
Vice President: K3AJ Tom Valenti
Secretary: W4VIC Vic Culver
Treasurer: N3RR Bill Hider

Trustees:
K3MM, N3OC, WX3B, W4ZYT, N4NW, K2AV, KE3X, K4ZA, K3WRY

PVRC Charter Members (all SK):
W3GRF, W4AAV, W4KFC, N0FFZ, W4LUE, W7YS, VP2VI/W0DX, W31KN, W4KFT

PVRC Website: http://www.pvrc.org
Get those Sweepstakes SSB logs in to SSPhone@arrl.org before 2200 ET 8 December!

Logs with club ID in ARRL hands as of 1100 25 November, which is after the log deadline for CW but a week before the SSB log deadline:

- PVRC CW 148
  PVRC SSB 114
  **Total** 262

- NCCC CW 41
  NCCC SSB 24
  **Total** 55

- SMC CW 97
  SMC SSB 72
  **Total** 169
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 is 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.
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.”
In addition to those tall Big Berthas and big monoband Yagis that Jack K4VV had put up at his superstation, he also erected a Force12 C3E on a crank up mast. I purchased this antenna about a year ago as a replacement for my venerable KT-34A that was acting cranky and in need of being "tuned up." Like many antenna projects, the C3E languished on saw horses for quite a while due to procrastination on my part.

Finally, with the help of Matt Hackett and his bucket truck, I got the KT-34A and the tapered section of my Rohn 25 tower off. I replaced the tapered top section with a normal section capped with a short flat top section with thrust bearing and rotator shelf. Matt came by a second time, and we made short work of hoisting the Force12 and securing it to the new mast. I've hoisted plenty of beams up towers with gin poles, etc., the bucket truck makes things much simpler and only takes two people to do the work.

Now all is good. Flat, low SWR on 10, 15, and 20 and even reasonable (tunable) SWR on 17 and 12. Things are again happy at my Little Pistol QTH. Further testing will determine how well the antenna performs, but as many of you know, mentally having faith in your equipment is a big part of doing well!

**Membership News**

PVRC had a rare shutout in the last month – no new members were reported.

Chapter leaders please remember to complete the [Meeting Attendance Report](#).
### Upcoming Contests and Log Due Dates

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<th>Contests This Month</th>
<th>Logs Due This Month</th>
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<td>Dec 8 – SS SSB</td>
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<td>Dec 6 – 10M RTTY</td>
<td>Dec 5 – CQ WW CW</td>
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<td>Dec 12 – ARRL 10M</td>
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See WA7BNM’s [Contest Calendar](#) for more detail and the latest information.

### The Editor’s Last Word – John K3TN

Sweepstakes is one kind of fun, but DX contests are a whole nuther level of fun. 160M contests are sort of in-between – mostly the same folks you work in NAQP or SS, but the occasional thrill of working DX. I’m hoping this year’s ARRL 10M contest will be more DX than domestic – please, propagation gods: one more year!

Thanks to John W4UA and Mike W4AAW for submissions for this month’s newsletter. If you have any good Sweepstakes stories or photos, or anything else – send to jpescatore at aol dot com.

### From the PVRC Treasurer – Bill N3RR

PVRC has chosen not to implement an annual Dues requirement. We depend on the generosity of all of our club members to finance our annual budget. In addition, active PVRC members are expected to participate and submit logs for at least two PVRC Club Competition contests per year.

When contemplating your donation to PVRC, each member should consider the benefit you are receiving from PVRC and its many opportunities for your personal growth in our wonderful hobby, then donate accordingly.

Direct donations to PVRC via Credit Card or PayPal may be made by clicking this "Donate" button and clicking the next Donate button that appears on your screen:
Eyeball QSO Directions

The latest info on local club meetings and get together will always be sent out on the PVRC reflector and posted on the PVRC web site.

NW Region: Meetings are generally held on the third Tuesday of each month at the Golden Corral Frederick, MD 5621 Spectrum Dr. Frederick, MD 21703 PVRC Meets in the BANQUET ROOM (301) 662-5922

From Interstate 270 south of Frederick, MD:
Take MD Route 85, "Buckeystown Road" NORTH.
First right on Spectrum Drive.
Restaurant is in a couple of blocks. Most arrive about 6 PM for dinner and informal discussions. The meeting begins at 7:00 PM.

Contact: Jim WX3B

Central Region: Meets monthly the second Monday of each month, except June, July & August). The location alternates between the below MD and VA locations. Pre-meeting dinners start at 6:00 pm and meetings start at 7:30 pm.

VA LOCATION: Anita's, 521 E. Maple Ave, Vienna, VA. Tel: 703-255-1001. Meets at this location during the months of February, April and October.
Contact: Rich NN3W

MD LOCATION: Max's Café. 2319 University Blvd W, Wheaton MD 20902. Tel: 301-949-6297 People usually begin arriving at the restaurant around 6:30. Meets at this location during the months of January, March, May, September and November. Contact: Art K3KU

The Laurel, MD Region: Bill N3XL The PVRC get-together is held at the first LARC meeting each quarter at the clubhouse.

The Annapolis Crew: Dan K2YWE Meetings are held on the 4th Wednesday of each month at Broadneck Grill in Annapolis. We gather at about 5:30 PM and order dinner about 6. We break up usually before 8 PM. E-Mail K2YWE to be put on the e-mail reminder list.

PVRC-NC: The PVRC-NC East chapter meetings are held at Manchester's Bar and Grill on the 9100 block of Leesville Rd. in North Raleigh, with “QRM” beginning at 6:00pm and the dinner meeting following shortly thereafter. The meeting is held monthly on the 1st Thursday of most months, cancellations or changes usually announced on the PVRC-NC website.
The PVRC-NC West chapter meets the 3rd Monday of each month (except December) at about 7:00 PM at Hams Restaurant, 414 S. Stratford Rd., Winston-Salem on the south end of the Thruway Shopping Center. We meet in the front meeting room of the restaurant. A wide variety of cold 801s and Sports bar menu available. Contact Henry Heidtmann W2DZO, full info at http://www.w4nc.com

Over the Hill Bunch: The group meets for lunch at noon alternately in Maryland at the Sir Walter Raleigh Inn 6323 Greenbelt Rd, Berwyn Heights, MD or in Virginia at the Parkview Marriot near route 50 and the Beltway. Meetings generally are held on the last Wednesday of the month and are subject to change. Meetings are announced by E-Mail. All PVRC members, non-members interested in membership and guests are welcome. For information contact Roger Stephens, K5VRX, 703-658-3991 for Virginia meetings; or Cliff Bedore W3CB or get on 147.00 for Maryland meetings.

Downtown Lunch Group: Meets on the 3rd Wednesday or Thursday of the month in the downtown area of Washington, DC. Locations occasionally change, but are always Metro accessible. Details are sent out on the PVRC reflector. Feel free to contact Eric W3DQ or Brian WV4V for details and directions.

Southwest VA Chapter: The Southwest VA group meets each Wednesday at about 8:30 AM at Hardees at 20265 Timberlake Road in Lynchburg, VA. This is an informal gathering, but normally has about 10-12 attendees. Contact Mark Sihlanick N2QT, Tel: 434-525-2921

Southern Maryland Chapter: We meet on the last Wednesday of each month at Niccolletti’s Pizza located at: 22741 Three Notch Road, California, MD 20619 Phone: 301-863-2233. Check out their menu here. Talk-in on 145.350 (-) PL-156.7

Meet and Eat: 6:30 – 7:30, PVRC meeting afterwards.

Contact the Chapter Chair, Tom Shelton, ND3N at GL1800Winger<at>Verizon<dot>net or (240) 434-3811 with any questions

Colonial Capital Chapter: Meets the 2nd Thursday of each month at 8:30 am Location: Hot Stacks Restaurant, 6495 Richmond Rd, Williamsburg, VA 23188 757-565-1105 Contact: Bill Conkling NR4C

The Tidewater Chapter meets the 3rd Tuesday of every month at Frankie’s Place for Ribs located in the Fairfield Shopping Center on the corner of Kempsville Rd and Providence Rd in Virginia Beach. The meeting starts at 7:00 PM.

Contact either Chapter Chair: Don Lynch, W4YZT, or Ron Young, W8RJL All amateurs are invited.

If you’d like to add or correct a listing, contact K3TN for inclusion in the Newsletter!
Now a Word From Our Sponsors

PVRC doesn't ask for dues, but the Club does have expenses. Please donate online here. You can also support the Club by buying from the firms listed who advertise in the newsletter, or by getting your company to sponsor the newsletter!

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Attention: Contesters

7 Big Problems that are Probably Affecting Your Scores Right Now!
and
How The RF Connection’s Mike-Link and Shure® Legendary Performance™ Broadcast Headsets Solve them ALL!

Problem #1: Foot Not Near Footswitch, QSO Missed

Solution #1
Use Your Finger Instead!
- Mike-Link finger-touch PTT
- Momentary SPST switch
- Positive tactile feel

Problem #2: You wear eyeglasses and you have a “pain in the temple” after “X” hours on-air

Problem #3: Brand ‘Z’ comfortable headset solves problem #2, BUT increases external background noise

Solutions #2 & #3
Use Shure BRM440M Broadcast Headset
- External background noise isolating
- Closed back—noise isolating
- Gamer-style, circumaural (over-the-ear) ear cup pads

Problem #4: “RF in your mic audio OM!”

Solution #4 - Use Mike-Link
Ferrite RF suppression chokes included on:
- microphone audio
- receiver audio
- PTT

Problem #5: Operating CW, you have a “pain in the head” after “Y” hours on-air

Solution #5 - Use Mike-Link
Periodically, Flip the Reverse/Inphase Audio Switch
- Reverses mono audio source for greater listening pleasure

Problem #6: Special microphone is needed for your ICOM radio

Problem #7: External batteries needed when your ICOM-specific headset is used with other radio brands

Solutions #6 & #7
Use Mike-Link & Shure BRM440M
- Built-in, user-selectable, Active ICOM pre-amp
- External power/battery NOT required
- Built-in, user-selectable mic input impedance 2.5K or 10k

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**Line Isolator**

Squash RFI and reduce feedline radiation in your 50 Ω, coax-fed antenna system. This new Comtek HF+6M line isolator maintains exceptional bandwidth and handles the full legal limit. This isolator is an ideal complement to any HF antenna feedline. Durable and well-suited to outdoor use.

**Exclusive Free Online Custom Cable Builder**

You decide which cable you want, how long you want it, which connectors you want installed or try different cables to see all of the available connectors. Our staff will build your cable assembly and test it rigorously before it leaves our facility. You can also use the Custom Cable Builder to create copper ground braid assemblies. Try it out at DXEngineering.com.