PVRC Newsletter December 2014

President's Letter – Ken KE3X

This column marks the end of my term as your President. As I look back on the last 11 months a few themes stand out:

1. **New Friendships**: The President role is a great platform to meet members face-to- face within our 175-mile radius, and this has been thoroughly enjoyable. There is a huge range of talents, interests, stations, experience and approaches across all our Chapters, all joined by the common thread of a shared interest in radio contesting. Contesters are basically the most awesome people! I look forward to deepening many of these new friendships in the years ahead.

2. **New Contest Wins**: We put forth a terrific effort across the NAQP's this year and, as I write this column, the NAQP Challenge Cup is winging its way to us, to be presented at the Awards Dinner on December 1. Bravo PVRC! The recent battles between NCCC, SMC and PVRC for Sweepstakes and NAQP are a terrific motivator and great for activity levels and contesting overall. When we compete hard, everyone wins.

3. **New Members:** In PVRC we say "Once a member, always a member". In past years we have typically added between 25-40 new members to our roster depending on the year. Looking back across 2014, I am happy to report we have added **fifty two** new members across our 12 Chapters! This confirms our club is in excellent health. Please help our new arrivals feel welcome at Chapter meetings, help them develop their skills and improve their stations into 2015. A full list of 2014 New Members is shown later in this newsletter.

Have fun in the December contests (ARRL 10-Meter and ARRL 160-Meter) and see you in the pileups.

Go PVRC!

Ken KE3X

PVRC New Members for 2014

Annapolis (2):	W3AAX, K2LRC
Central (2):	KK4ODQ, KK4ODR
Colonial Capitol (2):	K4MI, AI4QQ
Laurel (2):	K3SGB, K3SGA
NC East (5):	WA4PSC, KU4V, KK4UNZ, N4XC, KG4NEL
NC West (4):	NC4RG, NC4AG, W4UX, N4UEZ
Northwest (16):	W3GVX, WA2WDT, N9NB, AC4BT, N4ERD, K3OUD, N3DRL, N1RM, K3YNY, KE4S, W3TM, N3HEE, N3VBJ, N3VN, W3FGD, N3HEE
Rappahannock (5):	W6LWG, K4GTF, KS4Q, N4DXS, KK4RTF
Over The Hill (1):	KG3V
Southern MD (5):	KC3CCN, N8HTG, N7TY, KC3DIG, KC3DQB
Southwest VA (4):	K4XL, WD4EXG, KR4FS, K4LBG
Tidewater (4):	K1EFS, W7PRO, WA4HHG, KA1DBE
	Total: 52

PVRC Officers:

President:	KE3X	Ken Low
Vice President:	K8GU	Ethan Miller
Vice President:	W3LL	Bud Governale
Secretary:	AA4FU	Al Knight
Treasurer:	N3RR	Bill Hider

Trustees:

K3MM, N3OC, WX3B, W4ZYT, N4NW, K2AV, N4ZR, K4ZA, K3WRY

PVRC Charter Members (all SK):

W3GRF, W4AAV, W4KFC, N0FFZ, W4LUE, W7YS, VP2VI/W0DX, W3IKN, W4KFT

PVRC Website: http://www.pvrc.org

Sweepstakes Log Report – John K3TN

Get those Sweepstakes SSB logs in to SSPhone@arrl.org before 2200 ET 1 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	131
PVRC SSB	138
Total	**269**

NCCC CW	90
NCCC SSB	84
Total	**174**

A pretty good N1MM Function Key file for CQ WW CW– John K3TN

You can also find a more generic .mc file for CQ WW CW here.

F1 RUN CQ,<test> K3TN K3TN <test>
F2 Exch,# 5NN 5
F3 TU,TU *{CLEARRIT}
F4 K3TN,*
F5 HIS Call,!
F6 QSO B4,B4 *
F7 NR,>5< 5
F8 ?,?
F9 NR?,NR?
F10 CL?,call?
F11 AGN?,AGN?
F12 Wipe,{wipe}

F1 S&P CQ, ? K3TN{CLEARRIT}
F2 EXCH,5NN 5
F3 ZONE, >5< 5
F4 K3TN,*
F5 HIS CALL,!

A pretty good telnet spotting site is dxc.w9pa.net:7373

A pretty good filter string for AR v6 clusters (like W9PA above) is:

SET DX FILTER NOT SKIMBUSTED AND SPOTTERSTATE=[MD,PA,VA,WV]

This will apply CT1BOH quality filters to skimmer spots and only show spots from humans and skimmers in the states listed.

Snowbird Remote Operations – John N3AM

First of all, you have to realize how much crap I had to clear off my desks to make these photos presentable! Here's an overview of the shack in MD:

On the far left, Green Heron rotator controller, interfaced via a virtual com port on my MacBook Pro in FL, using the USConverters XS1000 server module (small box on the right), which does the translation from Ethernet to RS-232.

Foscam web camera which can rotate for a view of the Green Heron readout and the P3 band scope, as well as a couple of thermometers to monitor indoor/outdoor temps.

K9AY control box on top of the P3 fixed on Europe (no remote control, other than the ability to turn it on or off via the K3)

K3 with the RRC-1258 MkII RemoteRig interface. Above the K3 is a Drake matching network used for 75m, but not part of the remote set-up.

On top of the Drake MN2700 is the Top Ten band decoder, which reads the band data from the K3 to switch antennas.

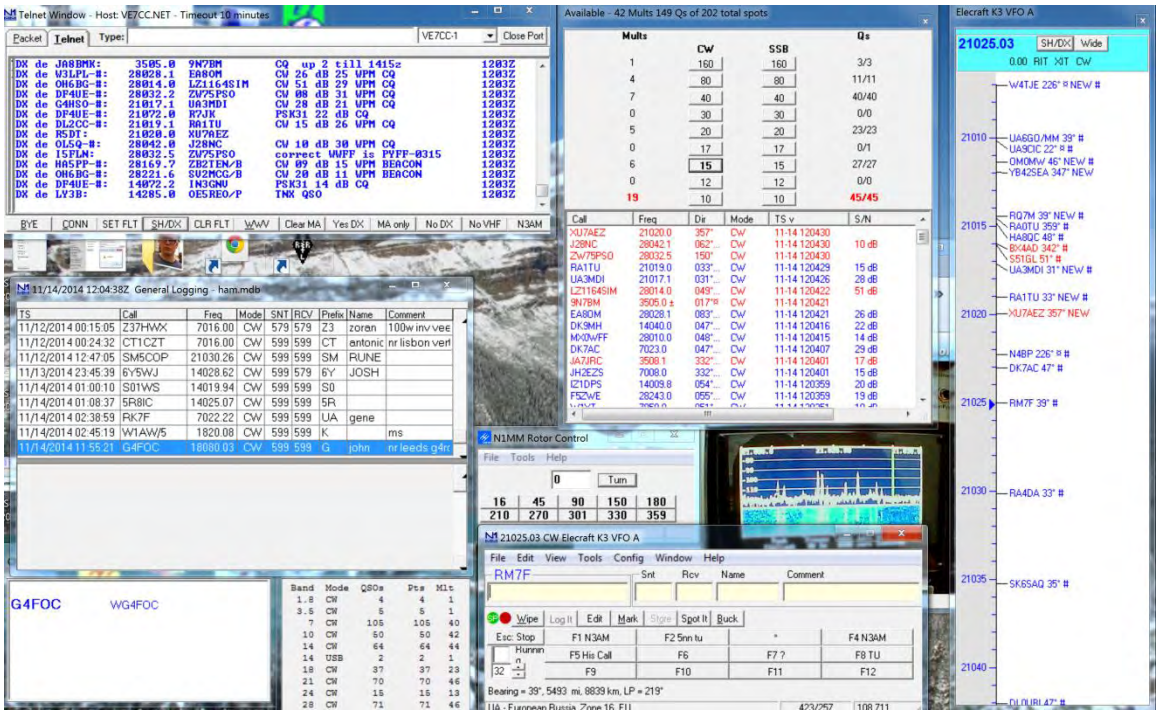
Web Power Switch 7, from Digital Loggers, Inc. Individual remote control of 8 outlets. A Netgear Ethernet switch in the front of the photo.

Detail of the RemoteRig and K3

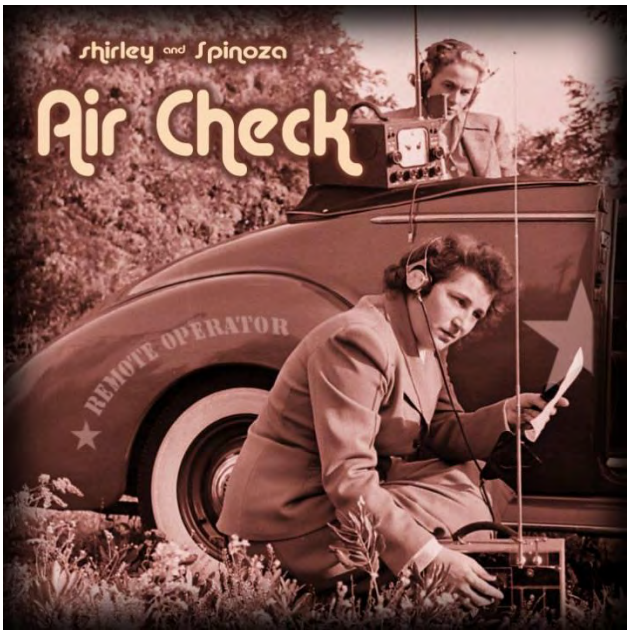
The remote control set-up at our QTH in Boynton Beach, Florida:

MacBook Pro running Parallels and Windows 7, with N1MM logger.

K3/0-mini with the RemoteRig RRC 1258MKII control interface.



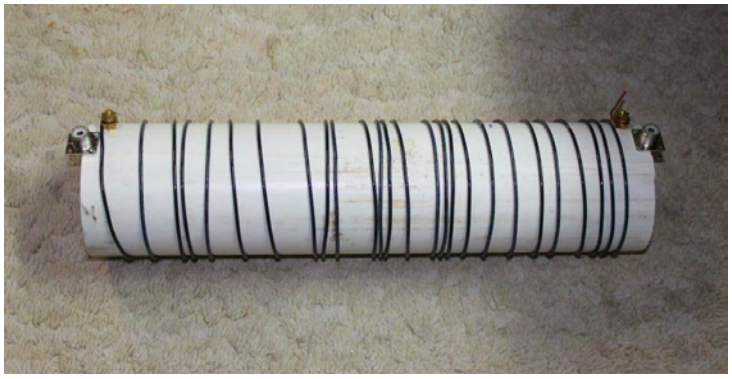
Screen shot of of N1MM on the MacBook. The Rotor Control window and Foscam image of the P3 band scope can be seen above the logging window.



Parapsychology of Dipole Antennas– Art K3KU

My only antenna is a tree-supported dipole that I use on all bands, fed with a tuner to 50 feet of coax to get through the basement wall, and about 70 feet of ladder line. Over the years the dipole has evolved into a 200-footer, about 35 feet high at one end, and about 55 feet high at the other. I know that it's just luck, but my TS-850's auto-tuner could match it on all (non-WARC) bands from 160M through 10M.

Could match it, that is, until one of the antenna support ropes failed last December (2013). I got the dipole back up in a slightly different location, and I replaced the at-least-40-year-old RG-59 coax with 50 feet of new RG-213. Of course, the system changed its behavior. The autotuner could not find a match on some bands. I reverted to using my old Millen Transmatch Junior for 80M through 10M. For 160M, research into impedance of short dipoles indicated that about 18-µH in series with the antenna would cancel out its X and leave an R that the '850 ought to be able to handle. So, I made this coil for 160M on some 4-inch PVC pipe.



It worked great. All (hah!) I had to do to get on 160M was undo the two PL-259's on the back of the Transmatch and hook them up to the coil.

I wanted to get back to six-band near-instant change capability. I decided to make a relay-switched system of single-band networks that would transform the impedance to something the auto-tuner could match. The system could fit on the cinderblock wall behind my file cabinet, conveniently between the rig and where the coax goes through the wall.

I mulled over the matter for several months. I spotted some useful relays in an on-line ham radio classified ad, and bought several of them. I pondered various switching schemes. I wandered the aisles of hardware stores, looking for ways to mount things. I slowly developed a conceptual configuration.

The big technical issue was how to design the networks. Theory (*long* dipoles?) and attempts at measurement did not work. I came up with a practical method. The auto-tuner *would* match on some parts of each of the bands. Based on my success with the 160M series coil, I would experiment with single L's or C's in series or in parallel at the rig end of the feedline, looking for something that would get into the auto-tuner's range.

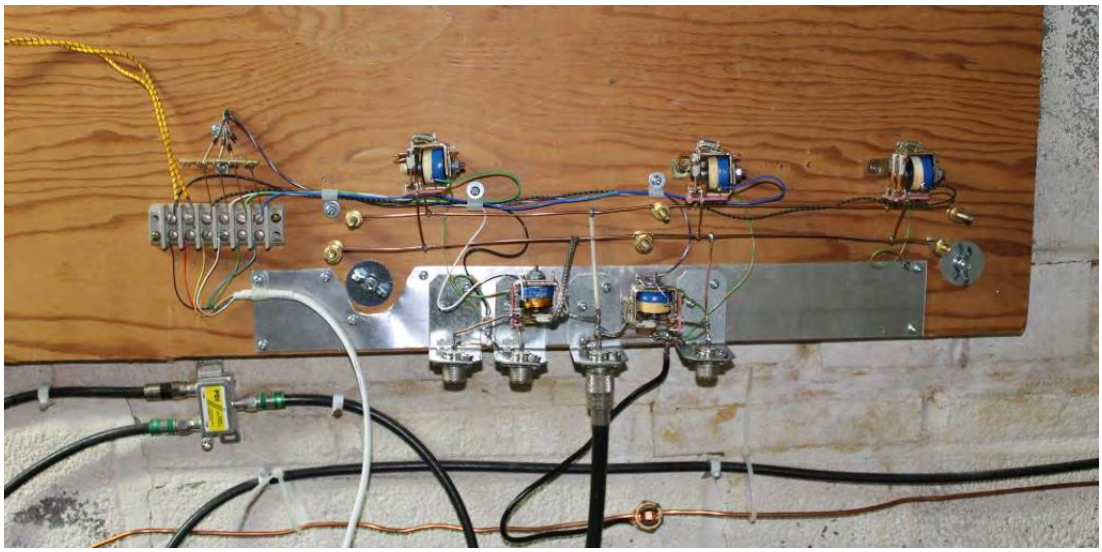
After I collected the mechanical parts and cut the plywood, just before I started building, I figured out the one thing different about the re-configured antenna/feedline. I restored the original configuration, and now the autotuner can handle it on all six bands except 80M and 10M (yes, it works on 160M!). All right, I need "networks" for only those two bands, but I'll have room for others in the future, and I'll build in some neat switching features.

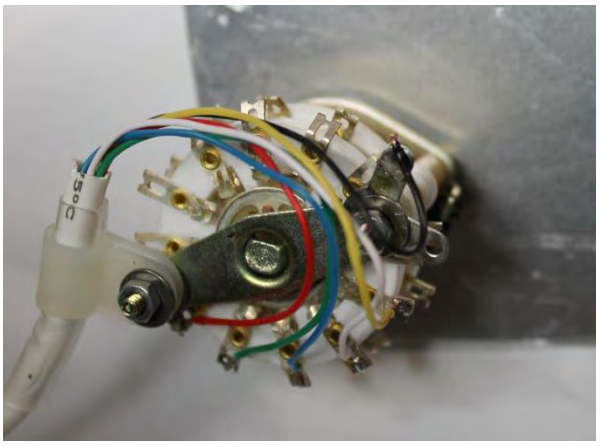
On to the experiments! For values of L, I tapped down on the former 160M coil. For values of C, I got the bag of old disc ceramics out of my junk box. I found that for 80M I needed about 6-µH in parallel; easy to wind another coil on plastic pipe. For 10M, about 150 pF in parallel; that would be five feet of RG-213, maybe made of shorter pieces in parallel. Ready to build!

I started the cutting and drilling and soldering on the Sunday before SS. My weekly QRT would start at 5 PM Friday; I needed to be done by then. I abandoned my usual desire for craftsmanship, and adopted the motto "We don't need it elegant, we need it Friday!"

What a blast!! It's been decades since I got to do this much building for the radio. I used tools I got in the summer of 1962, I used tools I picked up in the last year, I used the heck out of my mostly-dormant 8-inch drill press and I used the 5/8-in Greenlee punch borrowed from W3DQ. The plywood had been saved for 35 years; some of junk box the parts were older than that -- scraps of aluminum chassis from over 40 years ago. A few new parts were foraged from local Radio Shack stores; 12VDC for the relays is from a little P/S contributed by K3IU around 1980.

Trying to maintain normal family and community commitments during the week, I worked pretty much all night Monday and Wednesday. Thursday at 10 PM I mounted the network-ready system on the wall and wired it up to a rotary "band" switch next to the rig.



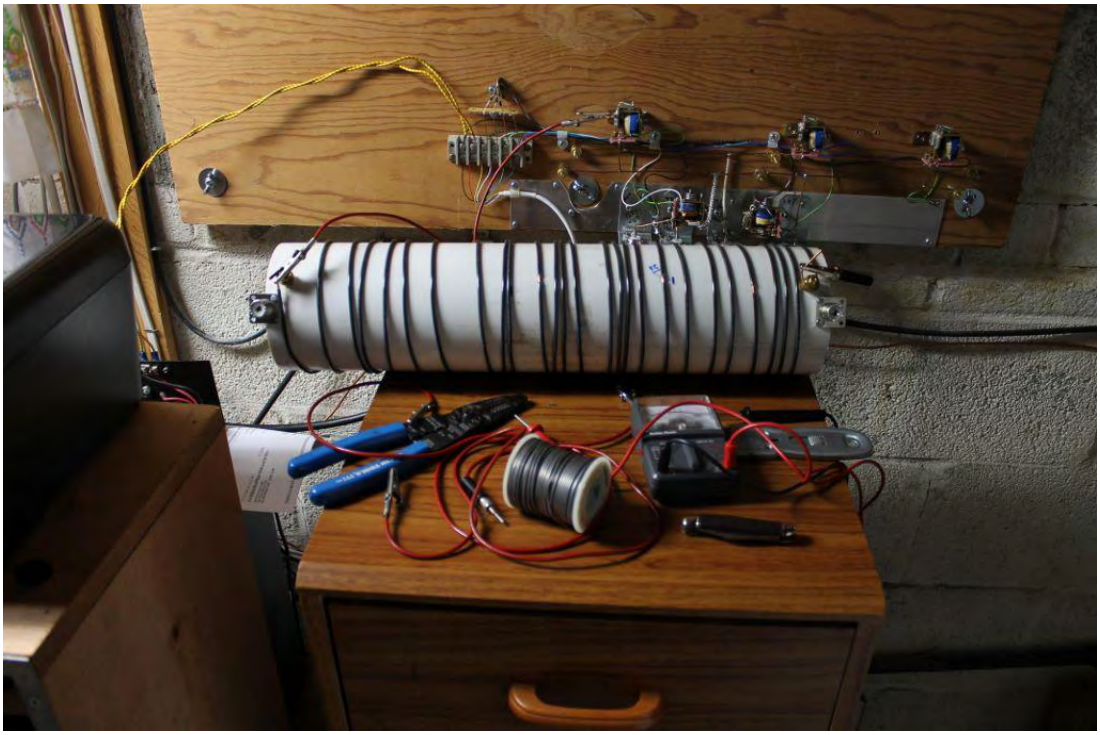


As built, the system has relays in place for 80M and 10M, plus a spare, and (clever!) an "External" position to connect an off-board network (i.e., the Millen Transmatch, in case something doesn't work). And, if no position is selected (or if the power is off), Input is connected directly to Output. All that's left is to re-check the L and C needed for matching on 80M and 10M, and build and mount those components on the plywood, and wire them in.

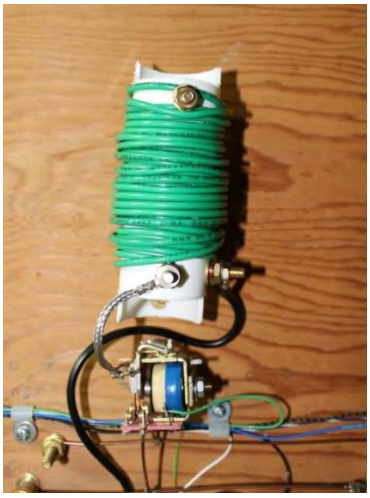
I hooked up the antenna feedline, turned on the rig, and checked the autotuner on 10M, ready to cliplead in capacitors. The autotuner matched across the whole band! What about 80M? The autotuner matched across the whole band there, too! After days of work and a bunch of money, the antenna system has spontaneously reverted to its previous good behavior. My emotions were a turmoil of astonishment, gladness, disappointment, disbelief, and skepticism. But there's nothing else to do. At 10:30 PM, I gave up and moved on to cleaning up from a week's cutting and drilling and soldering, and to setting the rig up for SS CW.

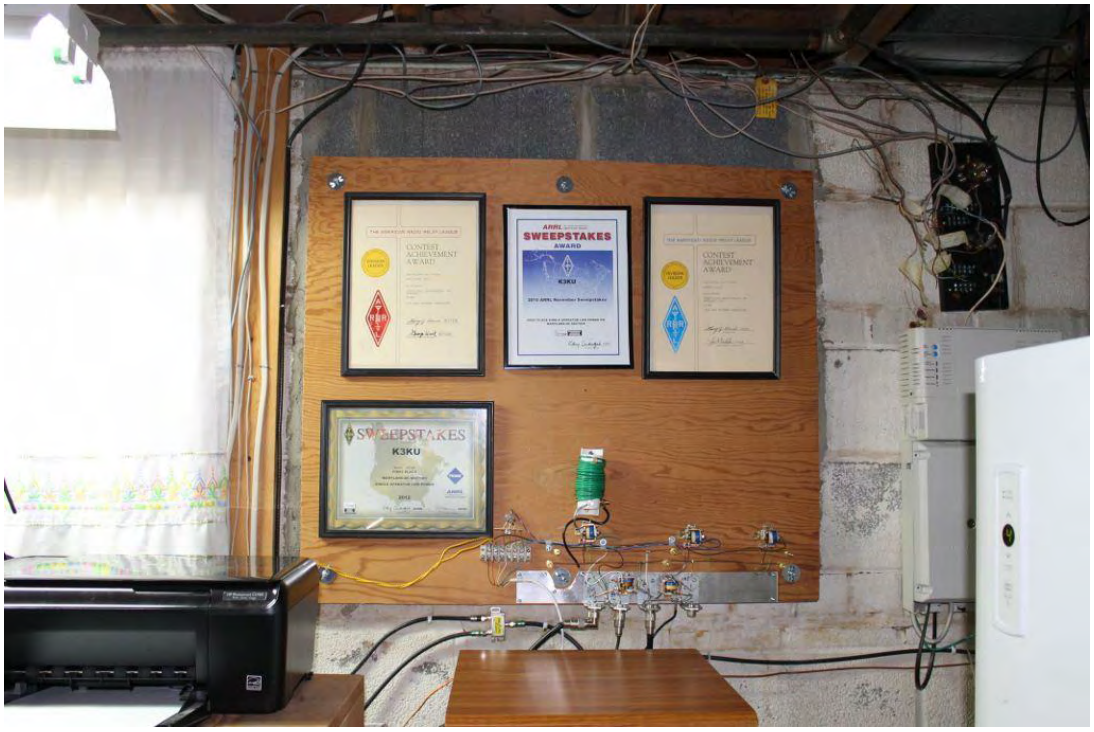
Friday afternoon, 4:30 PM. In 30 minutes ham radio – and the whole outside world – will disappear until Saturday night. The rig is ready; the CT-DOS software is ready, all the messages programmed; the 850 and CT are actually talking to each other (that doesn't always work). One more check of the auto-tuner – 10M, OK; 15M, OK; 20M, OK; 40M, OK; 80M, won't match!!

I grabbed the former 160M coil, clipleaded in one end, and started tapping down with another cliplead. With the whole coil, it just barely worked. And that's how I operated SS CW 2014.



After SS CW I made and installed a new coil for 80M, and I used the empty space on the plywood for something else I've wanted for a long time.





Top row middle is SS CW 2010, First Place MD-DC SOLP (everybody else went HP or assisted or didn't do enough BIC). Bottom is SS Phone 2012, First Place MD-DC SOLP (only 76K points; everybody else was too smart to do full-effort Class A). Top left is SS CW 1977, W4BVV (K3KU + Net), First Place (Division Leader) VA Multioperator (the Net was the other guys working the off-bands at Tom's station). Top right is SS CW 1979 First Place (Division Leader) MD-DC Multioperator (see "How I Set the Record", *NCJ*, March/April 2014).

Membership News – Bud W3LL

PVRC added a passle of new members since the last newsletter. Please welcome:

- Jim KG4NEL and Keith N4XC in the North Carolina East Chapter
- Brian K1EF, Linda W7PRO, Bob WA4HHG, and Art KA1BRE in the Tidewater Chapter
- John AI4QQ in the Colonial Capital Chapter
- Tom KG3V in the Over the Hill Chapter

Chapter leaders please remember to complete the Meeting Attendance Report.

Upcoming Contests and Log Due Dates

Contests This Month

- **Dec 5 – ARRL 160M**
- **Dec 7 – 10M RTTY**
- **Dec 13 – ARRL 10M**
- **Dec 20 – Croatian CW**
- **Dec 21 – Rookie Roundup CW**
- **Dec 27 – RAC Winter**
- **Dec 27 – Stew Perry Top Band**

Logs Due This Month

- **Dec – ARRL SSB**
- **Dec 5 – CQ WW CW**
- **Dec 15 – 10M RTTY**

See WA7BNM's Contest Calendar for more detail and the latest information.

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:

The Editor's Last Word – John K3TN

The Internet gods were angry with me last month – remote operating of VY1EI died at the last minute due to bad internet WX in the Yukon. But I had fun making 700 CW contacts and 500 SSB in SS. The DX contests are definitely more adrenaline inducing, but there is something about the history of SS that always makes it fun for me. Being part of PVRC dominance in Sweepstakes helps, too.

Thanks to Art K3KU and John N3AM for great contributions this month. As always, send any contributions to jpescatore at aol dot com.

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 holds its meetings on the 4th Monday of each month at the Mellow Mushroom, 314 W. 4th St., Winston-Salem, NC. Ragchew at 7:00pm, dinner meeting starts at 7:30pm. All contesters and interested guests are invited!

Over the Hill Bunch: The group meets for lunch at noon alternately in Maryland at the College Park Holiday Hotel Route 1 and the Beltway 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 Nicolletti'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

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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50/2M/220/440 HT
- Wideband RX - 900 Memories
- 5W TX (300mw 220Mhz)
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- Built-in CTCSS/DCS
- Internet WIRES compatible

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FT-857D
Ultra compact HF, VHF, UHF
- 100w HF/6M, 50w 2M, 20w UHF
- DSP included • 32 color display
- 200 mems • Detachable front panel (YSK-857 required)

Call for Low Price!

FT-7800R 2M/440 Mobile
- 50w 2m, 40w on 440mHz
- Weather Alert
- 1000+ Mems
- WIRES Capability
- Wideband Receiver (Cell Blocked)

Call Now For Your Low Price!

FT-2000 HF + 6M tcvr
- 100 W w/ auto tuner • built-in Power supply
- DSP filters / Voice memory recorder
- 3 Band Parametric Mic EQ • 3 IF roofing filters

Call Now For Low Pricing!

FT-8900R Quadband Transceiver
- 10M/6M/2M/70CM • Wires capable
- 800+ memories • Built-in CTCSS/DCS
- Remotable w/optional YSK-8900

Call Now For Special Pricing

AZ, CA, CO, GA, VA residents add sales tax. Prices, specifications, descriptions, subject to change without notice.

Look for the HRO Home Page on the World Wide Web http://www.hamradio.com

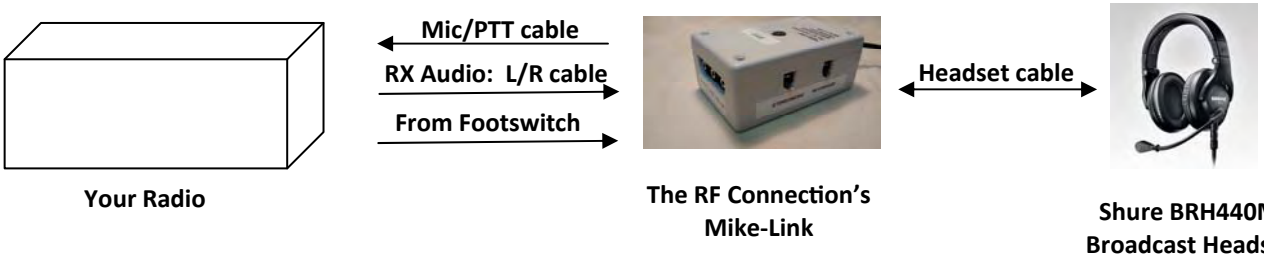
COAST TO COAST FREE SHIPPING
UPS - Most Items Over $100
Rapid Deliveries From The Store Nearest To You!

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

Call For Your FREE REPORT:

"The R.F. Connection's 'Mike-Link' and Shure© Legendary Performance™ Broadcast Headsets"

Call Joel for your *SPECIAL PVRC PRICE*!

301-840-5477

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80M/160M Preamplifiers

KD9SV Products

These preamps could make the difference between just hearing distant stations and actually working a rare DX. They feature a BF981 FET ultra low-noise design. Gain is adjustable from 10 to 28 dB with a low noise figure. These preamps are specifically tailored for monoband operation.

Front End Saver

KD9SV Products

If you're using a separate receive antenna, this unit eliminates the chance of accidentally destroying your radio's front end. It interrupts the receive antenna input on your radio when you key the T/R line. The Front End Saver essentially doubles as an amplifier keying interface to prevent transmitted RF energy from going directly back into your radio.

Receive Antenna Variable Phasing Controller

Combine two identical receive antennas to create a "virtual rotator" directional setup using the NCC-1 Receive Antenna Variable Phasing Controller. It's adjustable, allowing you to null-out unwanted directional noise or enhance distant signals. This controller is the ideal solution for imperfect antenna setups, giving you directional array features regardless of your landscape.

NCC-1 Receive Filters

These filters let you upgrade your NCC-1 Receive Antenna Variable Phasing Controller for enhanced, frequency-specific directional noise and signal nulling performance. They're perfect if you enjoy AM DXing, HF operation and SWL. All models feature only 1 dB insertion loss, and are available in low pass, band pass and high pass frequency ranges.

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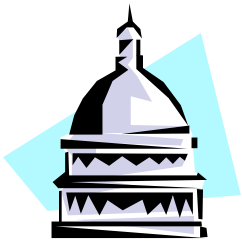
Get What you Want and Get on the Air with a DX Engineering Gift Card.

W3UU - **Harrisburg Radio Amateurs' Club** – WinterFest



JANUARY 24th 2015

(Saturday)

WINTERFEST

"A Harrisburg Pa. Hamfest"

Cooper Student Union, South Hall

1 HACC Drive

Harrisburg, PA 17110

N 40.29623 W 76.88805 (parking lot)

(HACC Campus - Follow Signs)

8:00 am to Noon

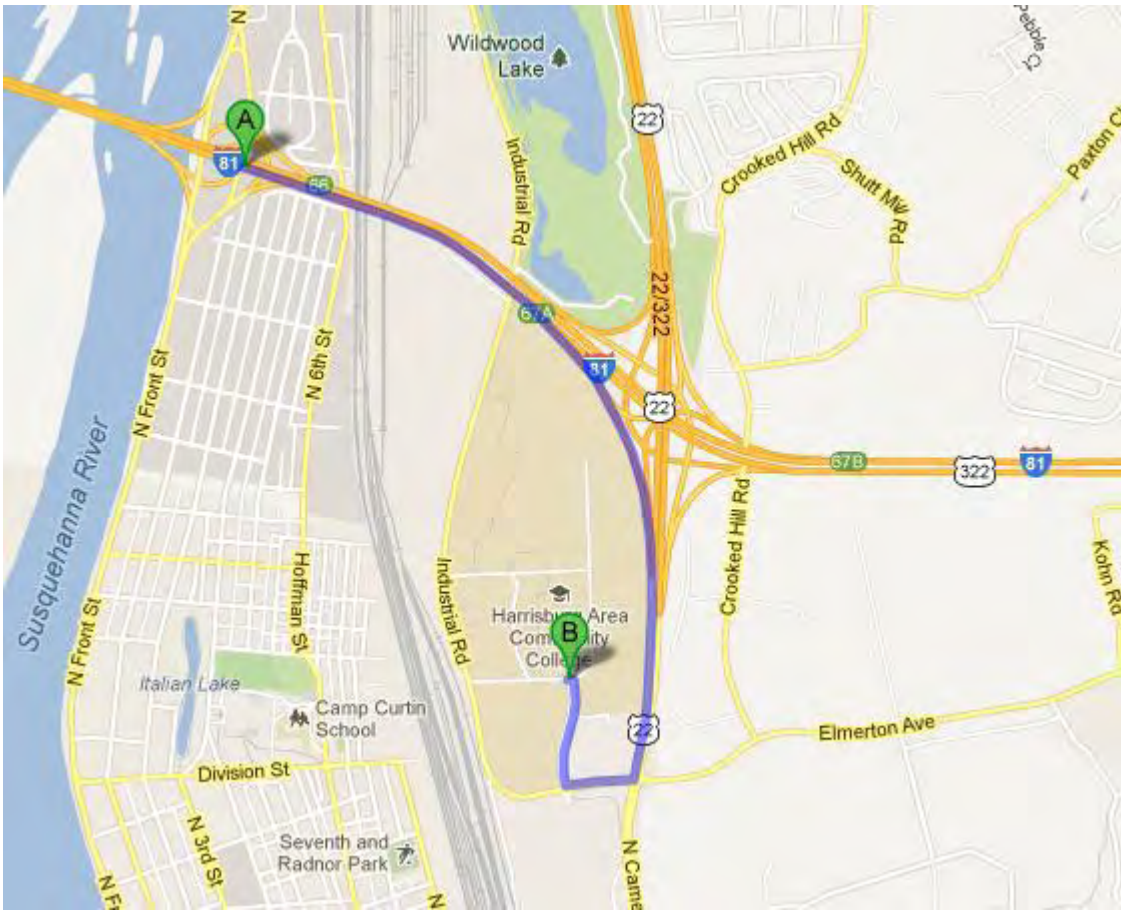
TALK-IN 146.76 (PL 100 hz)

- Admission, **$3.00** per person.
- **First table free. Additional tables $3.00 each!**
- Food and drinks available
- DXCC/WAS/VUCC QSL Card checking on site
- Amateur radio testing at 10:00 am
- Please, be courteous to your fellow hams by using reasonable table space. If you can use ½ table, please do so. (based on demand)

No reserved table space
Unloading can be done at the main doors, and then move vehicle
to the parking area

General Admission: 8:00 AM
Web Site: www.w3uu.org

For further information or questions contact:
Tim Lehman
717-982-8550
kb3oza@arrl.net



Driving directions to Harrisburg Area Community College

I-81 N

1. Head **east** on **I-81 N** toward **Exit 67A** — 0.7 mi
2. Take exit **67A** to merge onto **US-22 E** toward **PA-230/Harrisburg/Cameron St** — 1.1 mi
3. Turn right onto **Wildwood Park Dr** — 0.2 mi
4. Turn right onto **Hacc Dr** — 0.2 mi
5. Turn left onto **Alumni Dr** — 56 ft

Harrisburg Area Community College
1 Hacc Drive
Harrisburg, PA 17110

Parking lot coordinates Willow lot:
N40.29623
W76.88805

Upon entering HACC campus, turn Left and follow signs.

Vendors: After turning left, vendors will turn Right onto a service road and follow signs to Cooper Student building.

Buyers: After turning Left, proceed over small bridge, and turn Right into Willow parking area. Go until you see a foot bridge on the right, and find a parking spot. Get out of car and walk across the foot bridge to Cooper Building.