

## PVRC Newsletter January 2016

## **President's Letter – Ethan K8GU**

appy New Year, PVRC!

We made it through the November contest gauntlet of two Sweepstakes and CQ WW CW and the December holidays. Now, it's time to settle into a nice trot through some of the smaller contests in January. But, there are a fair number of 5M contests in January. including two NAQPs. We just conceded the NAQP Challenge Cup to SMC and while I congratulate them on their hardfought and well-deserved victory, I'm also looking forward to getting back! Remember that getting on for "just a few QSOs" in these contests raises the fun factor for everyone and earns PVRC a participation multiplier in the Challenge Cup competition.

What's new in the New Year? Are you making any mid-contest-season changes to your station or operating

habits? Are you planning a contest (or holiday) DXpedition? Be sure to tell us about it on the reflector and write it up for the Newsletter. I'm hoping to head back to the Pacific for ARRL DX again this year, pending logistics of getting research equipment in position since that pays the freight.

Finally, please officially welcome, Tim, N3QE, as our new secretary replacing Vic, W4VIC, who has served for the past year but is stepping aside. Tim puts up impressive numbers from his city lot station using principally an open-wirefed dipole. He's also pretty good at tracking numbers and crunching data, so I'm hoping we can exploit some of those skills in service of PVRC. So, thank you Vic and welcome, Tim!

73 and see you on the bands!

Ethan, K8GU/3.

## PVRC Has 3 of the Top 10 Multi-Multis in CQ WW CW - John K3TN

Lead by the W3LPL team's smashing performance to beat K3LR, NR4M and W4AAW are also in the claimed top ten scores for the USA M/M category in the contest di tutti contests, CQ WW CW:

## M/M HP USA

Call	QSOs	Zones	Countries	<b>Op Time</b>	Score	Club
W3LPL	10971	204	794	48	30,526,824	PVRC
K3LR	9808	206	814	48.0	27,771,540	NCC, FRC and NCCC
WE3C	9903	193	757	48	26,134,500	FRC
W2FU	8919	196	753	48	23,500,087	NCC
NR4M	8175	192	690	48	19,979,064	PVRC
AA2A(@K1TTT)	7022	187	708	48	17,853,460	YCCC
N4WW	6761	188	713	48	16,832,482	FCG
<u>WØAIH</u>	4343	192	652	48	9,829,224	MWA
K1KP	3931	145	518	44	7,545,603	YCCC
W4AAW	3609	159	575	45	7,522,766	PVRC

(From 3830scores.com)

## **PVRC Officers**:

President: K8GU Ethan Miller
Vice President: W3LL Bud Governale
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, W3IKN, W4KFT

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

## CQ WW 2015 Contester Survey Part 1 - Randy K5ZD

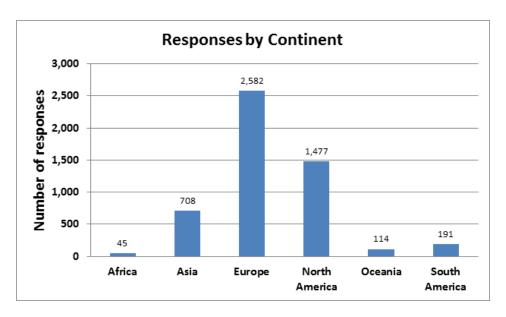
(Reprinted from the CQ WW Contest blog here.)

The CQ WW Contest Committee conducted a survey of contesters from September 2 to 29, 2015. Invitations were sent to everyone who had submitted a log in the 2014 CQ WW SSB and CW events. Public invitation to take the survey was also made on the cq-contest email reflector.

We received 5,117 responses from contest operators around the world (after removing a few duplicate responses). This blog post will be the first of several to present the survey results. Thanks to Doug KR2Q for doing the data analysis and producing the charts below.

## **Responses by Continent**

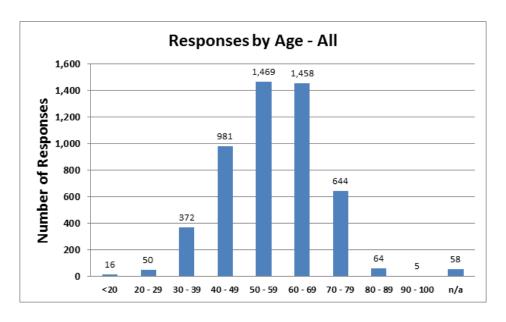
Responses were received from all continents.



Survey responses by Continent

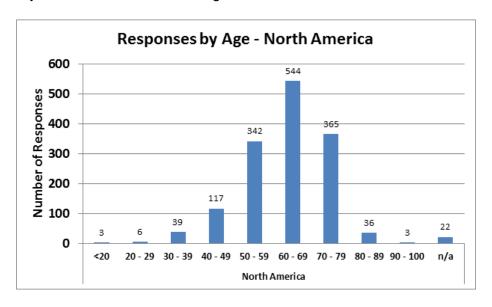
## Responses by Age

The age distribution of responses is very interesting.



Survey responses by Age

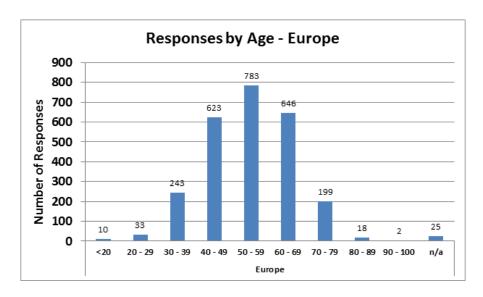
There is a large concentration at the higher ages and not many youth participants. This is especially true when we look at the age distribution in North America.



Survey responses by Age for North America

There is very little survey participation in North America from those under 40 years of age.

The story is a little more optimistic in Europe.

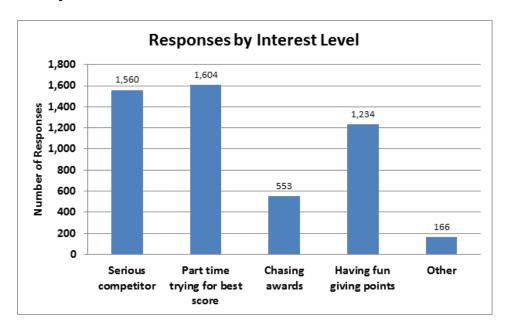


Survey responses by Age for Europe

Even so, we see the same curve but shifted about 10 years younger. While the missing young people could be a symptom on the survey methodology, any look around a ham radio club meeting convention reveals similar findings.

Should we be concerned about the future of radiosport (and amateur radio)? What can we do to encourage more young people to participate?

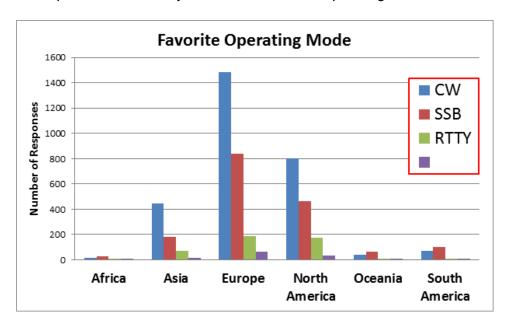
## **Responses by Interest Level**



Survey responses by competitive interest level

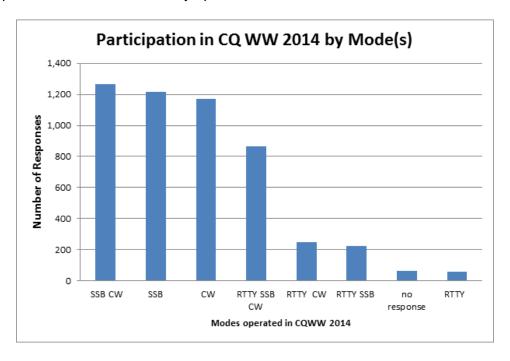
## **Responses by Operating Mode**

We asked respondents to identify their favorite contest operating mode.



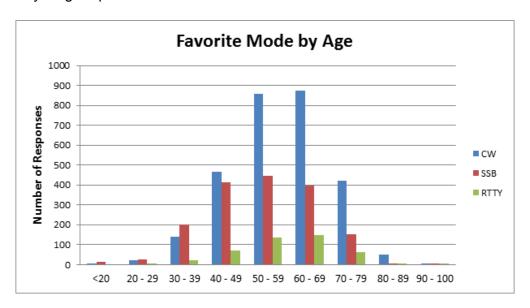
Favorite operating mode by continent

Compare that to what modes they operated in CQ WW 2014.



Participation in CQ WW 2014 by Mode

By both questions, it is clear the CW remains an important mode. This general breakdown remained the same when sliced by continent and by interest level. We did see that younger operator's tend more toward SSB.



Favorite mode by Age group

## Summary

It was very gratifying to receive so many survey responses in such a short time. The CQ WW community is passionate and engaged – both on the air and in considering the future of the event. It is very helpful for us to understand the opinions of the participants as we work to improve the contest.

**Europe is the leader for contest activity**. We see this in the survey results and in the number of logs that are submitted.

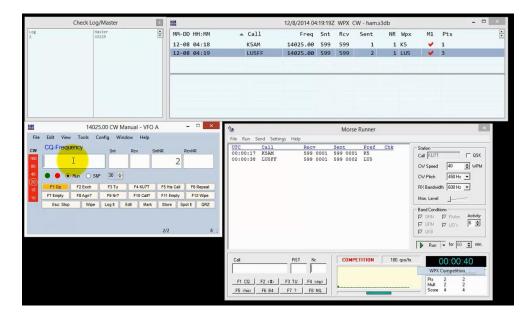
We are getting older. This may have an impact by lowering the number of operating hours, increasing number of multi-op entries, or eventually leading to less overall activity.

There is a wide range of interest levels among participants. Rules and categories have to balance the need for structure among those who are seriously competing as well as not causing an undue burden on those who simply want enjoy a few hours of DX chasing.

**CW** is the favorite operating mode. Perhaps a future survey can determine if this is for historical reasons or because CW is a more effective mode for DXing.

A future blog post will have results of the questions related to possible rule changes.

## Integrating MorseRunner to N1MM+ - John K3TN



These N1MM+ instructions provided by Andy KU7T and the latest info can be found here.

There has long been a way to integrate the N1MM logging interface with the MorsRunner contest simulation program from VE3NEA. N1MM+ has made this a bit easier, since the AutoHotKey (AHK) script for N1MM+ is already installed in your user folder under "<your user folder>\SupportFiles\MorseRunner-N1MMLPlus.ahk". The original script written by K7OG only works for N1MM Classic.

To integrate MorseRunner and N1MM+ do the following in the order shown.

- 1. Install VE3NEA's MorseRunner from here
- 2. Install AHK from http://www.autohotkev.com/
- Start new contest in N1MM Logger+ as WPX CW
- 4. Turn off Rig control in N1MM Logger+ (set radio to NONE) and turn off any CW keying like WinKey
- 5. Set N1MM+ to ESM and Run mode
- 6. Launch MorseRunner
- 7. Launch AutoHotKey script as Administrator, from the "<your user folder>\SupportFiles\MorseRunner-N1MMLPlus.ahk" location by right clicking
- 8. In MorseRunner, start a WPX competition
- 9. Put entry focus on N1MM EntryWindow and hit F1 and away you go.

You can also look under N1MM+ Configuration/FunctionKeys and enable the AHK script on startup and probably create a .ini file with this all set up. If you do so let me know if that actually works, I haven't tried it out.

You can also view a step-by-step video by clicking here

## **CW Ops Mini-contests – Hank W6SX**



Join us for CW fun. Three one-hour three sessions: 1300-1400Z Wednesday, 1900-2000Z Wednesday, and 0300-0400Z Thursday(Wednesday night).

CWops Tests rules are at http://www.cwops.org/cwt.html .

Everyone welcome. You don't need to be CWops member to join the fun.

CWops Tests exchange. Members: Name and CWops Member Number. Nonmembers: Name and State, Province, or DX Country Prefix.

Lots of contacts or just a few, please report your result to http://3830scores.com/.

The first rule of CW is to have fun and to share the fun.

CW Exuberantly,

Hank, W6SX

**CWops Tests Manager** 

## **Membership News**

PVRC had one new member added in December – please welcome Bobbie N3XTP in the Northwest Chapter.

Chapter leaders please remember to complete the Meeting Attendance Report.

## **Upcoming Contests and Log Due Dates**

## **Contests This Month**

- Jan 1 SARTG RTTY
- Jan 2 ARRL RTTY Roundup
- Jan 9 **NAQP CW**
- Jan 16 NAQP SSB
- Jan 30 REF CW
- Jan 31 CQ WW 160 CW

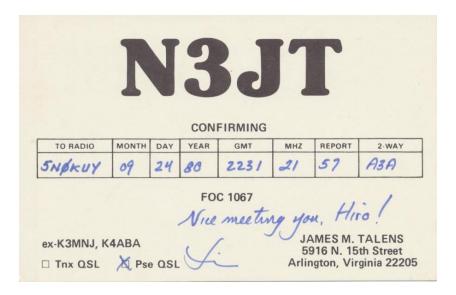
## Logs Due This Month

- Jan 5 ARRL 160M
- Jan 12 ARRL 10M
- Jan 19 OK DX

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

## From the Wayback Machine – Jim N3JT

I recently received this email from Dan WA6URY/7J1ABD:



Hi Jim, - Nice to work you on 40m today during the CWT.

I was at a long time local JA friend's house (JF1MQS – Kunihiro Yamaguchi) last weekend. He operated in Nigeria as 5N0KUY in the early 1980's and while he was showing me his QSL card collection from those days - guess whose card popped up? I was really surprised.

Best Wishes for the holiday season to you and Nina.

- Dan, WA6URY / 7J1ABD

## 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 <u>LARC</u> 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 <u>K2YWE</u> 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 <u>W3CB</u> or get on 147.00 for Maryland meetings.

**Downtown Lunch Group:** Meets on the 1st Wednesday of the month at 12 noon at RFD Washington, 810 7th Street NW, up the street from the Verizon Center (entrance is on the left [west] just north of the corner of Seventh and H Streets). For those who dare to drive in downtown DC, be forewarned that parking is often difficult. For that reason, we recommend you travel by an alternative means - METRO's Green, Red and Yellow Lines to GALLERY PLACE-CHINATOWN. Details are sent out on the PVRC reflector. Feel free to contact Eric W3DQ 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

**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, <u>W4YZT</u>, or Ron Young, <u>W8RJL</u> 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 <a href="here">here</a>. 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!

# QSL CARDS By LZ1JZ WWW.LZ1JZ.COM



#### **By Scott KA9FOX**

- •Free Ham Radio Classifieds (most popular ham swap site)
- •Low Cost Web Hosting, Email & Domain Name Services
  •Web Design & Development

http://www.QTH.com





## Your source for DX News!

**The Daily DX** - is a text DX bulletin that can be sent via e-mail to your home or office Monday through Friday and includes DX news, IOTA news, QSN reports, QSL information, a DX Calendar, propagation forecast and much, much more. With a subscription to The Daily DX you will also receive DX news flashes and other interesting DX tidbits. Subscriptions are \$49.00 for one year or \$28.00 for 6 months.

**The Weekly DX** - is a product of The Daily DX that can be sent weekly to your home or office via e-mail in the form of a PDF (portable document format). It includes DX news, IOTA news, QSN reports, QSL information, a DX Calendar, propagation forecast and graphics. *Subscriptions are \$27.00 for one year*.

Get a free two week trial of The Daily DX and The Weekly DX by sending a request to **bernie@dailydx.com.** 

The Daily DX 3025 Hobbs Road Glenwood, Maryland 21738 Phone: 410-489-651 Skype w3ur-bernie



(800) 854-6046 Janet, KL7MF, Mgr. anaheim@hamradio.com

## BURBANK, CA

1525 W. Magnolia Blvd, 91506 (818) 842-1786 (800) 854-6046 Eric, KAGIHT, Mgr. Magnolia between S. Victory & Buena Vista burbank@hamradio.com

## OAKLAND, CA

UAKLAND, CA 2210 Livingston St., 94606 (510) 534-5757 (800) 854-6046 Mark, WI7YN, Mgr. 1-880 at 23rd Ave. ramp oakland@hamradio.com

## SAN DIEGO, CA

5375 Kearny Villa Rd., 92123 (858) 560-4900 (800) 854-6046 Tom, KM6K, Mgr.

Hwy. 163 & Claremont Mesa sandiego@hamradio.com

## SUNNYVALE, CA

510 Lawrence Exp. #102, 94085 (408) 736-9496 (800) 854-6046 Dan K6DN, Co-Mgr. Howard, W6HOC, Co-Mgr. So. from Hwy. 101 sunnyvale@hamradio.com

#### **NEW CASTLE, DE**

(Near Philadelphia) 1509 N. Dupont Hwy., 19720 (302) 322-7092 (800) 644-4476 Rick, K3TL, Mgr. RT.13 1/4 mi., So. I-295 newcastle@hamradio.com

#### PORTLAND, OR

11705 S.W. Pacific Hwy. 97223 (503) 598-0555 (800) 854-6046 Leon, W7AD, Mgr. Tigard-99W exit from Hwy. 5 & 217 portland@hamradio.com

## DENVER, CO 8400 E. Iliff Ave. #9, 80231 (303) 745-7373 (800) 444-9476

John, N5EHP, Mgr. denver@hamradio.com

## PHOENIX, AZ ap Ave., 85021

1939 W. Dunlap Ave., 85 (602) 242-3515 (800) 444-9476 Gary, N7GJ, Mgr. 1 mi. east of I-17 phoenix@hamradio.com

## ATLANTA, GA

6071 Buford Hwy., 30340 (770) 263-0700 (800) 444-7927 Mark, KJ4VO, Mgr. Doraville, 1 mi. no. of 1-285 atlanta@hamradio.com

## WOODBRIDGE, VA

(Near Washington D.C.) 14803 Build America Dr. 22191 (703) 643-1063 (800) 444-4799 Steve. W4SHG. Mgr. Exit 161, 195, So. to US 1 woodbridge@hamradie.com

#### SALEM, NH

(Near Boston) 224 N. Broadway, 03079 (603) 898-3750 (800) 444-0047 Chuck, N1UC, Mgr. Sares@hamradio.com Exit 1, I-93; 28 mi M-28 mi. No. of Boston salem@hamradio.com

## Special Holiday Discounts Off Our Already Low Prices!



VX-2R 2M/440 HT

WiRES compatible

FT-60R

Low Price!

S5. HRO COUP

VX-6R

2M/220/440HT

2m/440 HT
 5W Wide-band receive
 CTCSS/DCS Built-in
 Emergency Auto ID

1300 Memory channels

**Call For Low Price!** 

World's smallest Dual-band HT w/ wide RX

1.5 W RF output

**GREAT YAESU** WINTER SPECIALS Through 12/31/06





### FT-897D VHF/UHF/HF Transceiver

- HE/6M/2M/70CM DSP Built-in
- HF 100W (20W battery)
   Optional P.S. + Tuner TCXO Built-in

Call Now For Our Low Pricing!



### FT-817ND HE/VHE/UHF TCVR

- 5W @13.8V ext DC USB. LSB. CW. AM, FM Packet (1200/9600 Baud FM) 200 mems built in CTCSS/DC5 TX 160-10M, 6M, 2M, 440 Compact 5.3" x 1.5" x 5.5", 2.6 fbs FNB-85 NiMH battery + NC-72B included
- **Call Now For Low Pricing!**



## FT-8800R 2M/440 Mobile

- V+U/V+V/U+U operation
   V+U full duplex Cross Band repeater function
   SOW 2M 35W UHF
- 1000+ Memory channels
- · WIRES ready

Call Now For Low Pricing!



# wideband RX – 900 memories 5W 2/440 , 1.5W 220 MHz TX Li-ION Battery - EAI system Fully submersible to 3 ft. CW trainer built-in

VX-7R/VX-7R Black

50/2M/220/440 HT

• Wideband RX - 900 Memories

• 5W TX (300mw 220Mhz)

• Li-lon Battery

• Fully Submersible to 3 ft.

• Built-in CTCS/DOS

Internet WIRES compatible

Now available in Black!

50/2M/220/440 HT



 Direct Keypad Entry
 Sw output
 209 memories
 Ultra Rugged FREE

**Call Now For Special Pricing!** 

# FT-857D

## Ultra compact HF, VHF, UHF

- 100w HF/6M, 50w 2M, 20w UHF
- DSP included 32 color display
   200 merns Detachable front panel (YSK-857 required)

#### Call for Low Price!



- 50w 2m, 40w on 440mHz
   Weather Alert

- Weather Alert
   1000+ Mems
   WIRES Capability
   Wideband Receiver (Cell Blocked)





## 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 filter



## FREE YSK-8900 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**

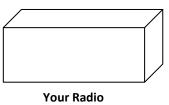
**FREE SHIPPING** 

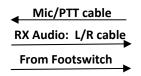


## **Attention: Contesters**

7 Big <u>Problems</u> that are Probably <u>Affecting Your Scores</u> Right Now!

How The RF Connection's <u>Mike-Link</u> and <u>Shure</u><sup>©</sup> Legendary Performance <sup>™</sup> <u>Broadcast Headsets</u> Solve them ALL!







Headset cable



r Radio The RF Connection's Mike-Link

Shure BRH440M Broadcast Headset

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



<u>Problem #5</u>: 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



<u>Problem #2</u>: You wear eyeglasses and you have a "pain in the temple" after "X" hours on-air

<u>Problem #3</u>: Brand 'Z' comfortable headset solves problem #2, BUT <u>increases</u> external background noise

# Solutions #2 & #3 Use Shure BRM440M Broadcast Headset

- External background noise isolating
- Closed back—noise isolating
- Gamer-style, circumaural (over-theear) 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

<u>Problem #6</u>: Special microphone is needed for your ICOM radio

<u>Problem #7</u>: 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<sup>TM</sup> Broadcast Headsets"

Call Joel for your <u>SPECIAL PVRC PRICE</u>!

301-840-5477



Start the New Year with Great Products from DX Engineering!

## **Pro 7 Headsets**

With acoustically insulated ear pads and an innovative design, these headsets block out all the background noise, leaving just you and



your radio. They also feature a unique phase reversal switch to help dig out weak signals.

## Receive Antenna Variable Phasing Controller

This system combines two identical receive

antennas to create a "virtual rotator" directional receive array, which lets you null-out unwanted directional noise to improve distant signals. It's a great tool for enhanced MW and HF reception. Optional Receive Filters are available separately for band-specific enhanced performance.

## <u>Receive</u> <u>Preamplifiers</u>

An advanced push-pull design eliminates harmonic distortion to make these the best low-noise preamps on the



market—even better than most radio front-ends. With 300 kHz-35 MHz coverage, they're perfect for AM, SWL, HF DXing or contesting.

## ZOOM Antenna and Cable Analyzer, and NANUK Equipment Case Combo

The AA-230 ZOOM is easy to use, boasting a large color display, intuitive hotkeys, and straightforward user-interface. The analyzer covers 100 kHz to 230 MHz and can be used to determine return loss and make R/X/Z/L/C measurements on a specific frequency. We've paired it with a perfectly sized NANUK

Equipment Case to keep it protected in the field.



Connect an external receive-only antenna to your transceiver with this interface. It can also be used as a TX/RX switch for older gear, to insert a receive preamplifier, or to

interface to phasing/noise cancelling systems.



RigExpert®

NANUK

## Receiver Guard 5000 and 5000HD

Safeguard your receiver against potentially dangerous levels of RF from nearby transmitted signals. They work automatically

and won't affect station performance. Select the original Receiver Guard, or the new HD version made for upper-tier, high-performance radios.



## **Extended Phone Hours!**

Sales: 1-800-777-0703

Monday-Friday: 8:30 am to Midnight Saturday & Sunday: 8:30 am to 5 pm

**Tech: 1-330-572-3200** Monday-Friday: 8:30 am to 7 pm

**DXEngineering.com** Online 24/7

All Times Eastern

Country Code: +1 Sale Code: 1601PVRC



W3UU - Harrisburg Radio Amateurs' Club - WinterFest





# 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)** 

This will be our last time at this location. Check www.W3UU.org for next year's location

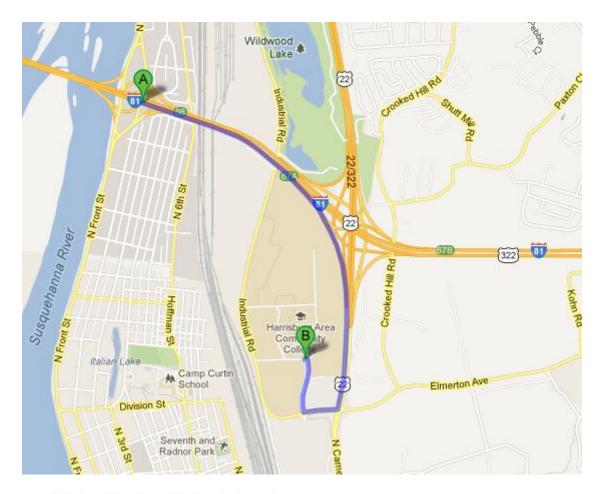
- ♦ Admission, \$3.00 per person.
- ♦ First table free. Additional tables \$3.00 each!
- ♦ Food and drinks available
- ◆ DXCC/WAS/VUCC QSL Card checking on site
- ♦ Please, be courteous to your fellow hams by using reasonable table space. If you can use ½ table, please do so. (based on demand)



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



Harrisburg, PA 17110

1-01 N	
1. Head east on I-81 N toward Exit 67A	
2. Take exit 67A to make onto US 22 E	0.
2. Take exit 67A to merge onto US-22 E toward PA-230/Harrisburg/Cameron St	
2. Turn right onto Wildurgad Dark Dr	1.
3. Turn right onto Wildwood Park Dr	0.
4. Turn right onto Hacc Dr	
5. Turn left onto Alumni Dr	0:
Harrisburg Area Community College	- 5
1 Hacc Drive	

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.