PVRC Newsletter
March

Newsletter Editor: John K3TN jpescatore@aol.com
Website: http://www.pvrc.org
Meeting Info: http://www.pvrc.org/chapters.htm
Facebook: https://www.facebook.com/groups/PotomacValleyRadioClub/

President's Letter – Doug AA3S

Incentives – PVRC Olympics

If you participate in a radio contest it is because doing that scratches some kind of itch for you.

PVRC has been very successful in club competitions in part because enough members are scratching their itches.

One focus of your PVRC leadership is to find ways to incentivize members to scratch often and effectively.

From the top of the PVRC web page we see our five mission categories and the PVRC 5M program directly incentivizes the first: "competing and winning in club competition". The 5M award program seems to motivate our contest participation and winning for PVRC in club competition, especially with the occasional "double 5M points" for a particular contest that PVRC wants to emphasize for tactical advantage. I see no compelling reason to make any meaningful change to the 5M award program.

The other four PVRC mission categories are not so directly focused on contest competition exclusively. Those four mission categories were incentivized (to various degrees) by the original (2018) PVRC Olympic Medals program with its various award criteria; I enjoyed that program in particular since I felt I had contributed to PVRC in several areas by accomplishing some of the original Olympic goals. Medals were awarded each year after the end of a PVRC contest season (July of one year to June of the next).

After a few years of that multi-category Olympics our PVRC Olympic award program had to change its rules to reduce the amount of effort involved by the volunteer(s) to track all the various criteria for all the participants throughout the contest season - otherwise the Olympic program would have ended due to lack of volunteers. The Olympic medal awards became based only on the number of 5M contests that a member submitted scores for. That was relatively simple and quick to administrate, but the one and only incentive for that Olympic program is not much different than the 5M award program. And I found that sometimes members received an Olympic medal and did not know why;

in other words, they had not been incentivized by the Olympics program to help PVRC win club competitions because they were not cognizant of or not deliberately working toward the Olympic award criteria.

This suggests that if we feel that all the PVRC Mission categories are worthy of deliberate incentivizing (I do), then we want an augmented PVRC Olympics program with several categories directly related to our PVRC Mission. The award administration must be simple, quick and to some degree performed by the candidate who desires the award. This could mean, for example, that if one of the several new Olympic award categories becomes “the award candidate has published an article to the PVRC Newsletter during that contest season”, then soon after the end of the contest season the candidate would submit to the volunteer PVRC Olympic Award administrator:

a) an application for an Olympic award and
b) a statement that his/her article had been published in the May (or whatever) Newsletter.

There are five PVRC Mission topics which suggests to me a yearly PVRC Pentathlon Award for notable achievement in all the mission categories. A five-sided medal?

One of your PVRC Vice Presidents, Bill Axelrod K3WA, has recently used our Reflector to solicit feedback on the PVRC Olympics award program from members. That feedback will be considered by the Officers as we discuss what to do with the PVRC Olympic award program. Most feedback received so far has supported the general sense of what I wrote above. Please get your feedback to Bill (or any PVRC Officer) before the end of March. If you want to help administer the award, please let me know (you would not be making a commitment at this point, only showing an interest in helping!)

73, Doug AA3S, PVRC President

PVRC Officers:

President:	AA3S	Doug Hart
Vice President:	K3WA	Bill Axelrod
Vice President:	K8LF	Jerome Svinicki
Secretary:	N3QE	Tim Shoppa
Treasurer:	WA3AER	Ted Bauer

Trustees:

K3MM, N3OC, K2AV, N1RM, W3LPL, N3KN, W2RU, W3LL, N4RA

PVRC Charter Members (all SK):

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

Newsletter Editor: John K3TN jpescatore@aol.com

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PVRC on Facebook: https://www.facebook.com/groups/PotomacValleyRadioClub/

Club Competition Update – Doug AA3S

PVRC won the 2022 Worked All Germany Club Competition DX category!! First time the sponsors have held this club competition. The PVRC score also beat the top Club in the EU (excluding Germany)!

Update of January Table status – Good Enough?

Below is a table of the PVRC 5M Contests for the previous few years (data as of mid-February 2023) and some key results. Note that some contest sponsors report a single club score result as the sum of separate CW and Phone events (e.g., ARRL Sweepstakes).

#	PVRC 5Million Point Contest Name	# is PVRC rank, NAME is winning club or closest to PVRC. RED means PVRC did NOT win			
		2022	2021	2020	2019
1	ARRL RTTY Round Up	2, NCCC	3, NCCC	2, NCCC	2, NCCC
2	NAQP Club Competition	NA	1, SMC	1, SMC	1, SMC
3	ARRL January VHF	4, Mt Airy	5, Mt Airy	6, Mt Airy	9, Mt Airy
4	CQ160 CW + SSB (rank in U.S.A.)	1, FRC	1, FRC	1, FRC	1, FRC
5	CQ WPX RTTY (rank in U.S.A.)	1, FRC	1, FRC	2, NCCC	1, NCCC
6	ARRL DX CW + SSB	3, FRC	3, FRC	3, FRC	3, FRC
7	CQ WPX SSB + CW (rank in U.S.A.	**2, YCCC**	1, FRC	2, YCCC	2, YCCC
8	CQMM DX (Brazil)	3, YCCC	3, FRC	4, FRC	2, FRC
9	ARRL June VHF	2, Mt Airy	2, Mt Airy	3, Mt Airy	2, Mt Airy
10	CQWW VHF Contest	1, SMC	2, SMC	1, NEWSG	2, SMC
11	WAE CW + SSB +RTTY	**(2, YCCC)**	1, FRC	1, FRC	1, FRC
12	WW DIGI	1, YCCC	3, NCCC	4, YCCC	3, NCCC
13	ARRL September VHF	3, Mt Airy	3, Mt Airy	2, Mt Airy	6, Rochest
14	CQWW RTTY (rank in U.S.A.)	1, YCCC	1, FRC	1, FRC	1, YCCC
15	WAG (Germany)	1,FRC	NA	NA	NA
16	CQWW SSB + CW	TBD	3, FRC	3, FRC	3, FRC
17	ARRL SS CW + SSB	TBD	1, FRC	1, SMC	1, FRC
18	ARRL 160M	TBD	1, FRC	1,FRC	2, FRC
19	ARRL 10M	TBD	**2, FCG**	1,FCG	1,FCG
	Shaded cells are updates from previous Table				

The table shows:

- the number for how PVRC ranked (1 means PVRC won) in each year of club competition against clubs in the United States (i.e. not including foreign clubs) and
- the name of the domestic club who won if PVRC did not win

Note that the most recent results are shown in RED when PVRC did not win that recent contest and the club that won is shown; for example, in the 2022 ARRL RTTY Roundup PVRC placed second and NCCC won. Other results show the club that placed second when PVRC won.

An important takeaway is that of the eighteen 5M contests in 2022, we have final results for 14: lost 8 and won 6.

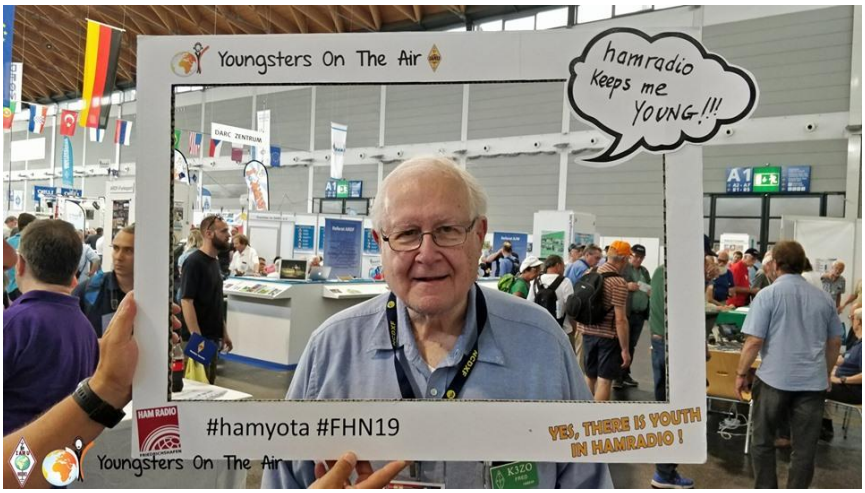
So how can we plan to score higher in our 5M contests? There are many PVRC members who regularly score very high in many of the 5M contests and those operators are a natural place to start for ideas.

Can you volunteer to be a '5M Contest Tactics Chairperson' to examine a specific 5M contest of special interest to you and determine some practical actions PVRC operators could take to score higher in that contest?

Please contact me directly if interested in being such a Chairperson or a member of a specific tactics group.

73 Doug AA3S

K3ZO Showing His Lack of Age – Dave K3ZJ via Facebook circa 2019



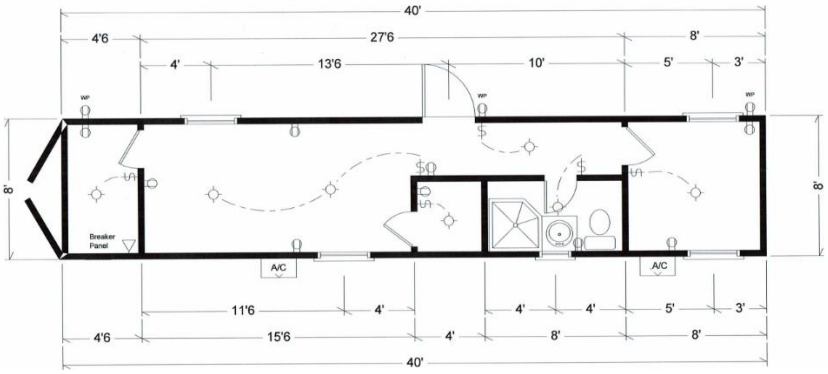
Fred K3ZO hamming it up at Friedrichshafen this past weekend. Photo courtesy DK6SP and YOTA.

The New 8P5A – Tom W2SC

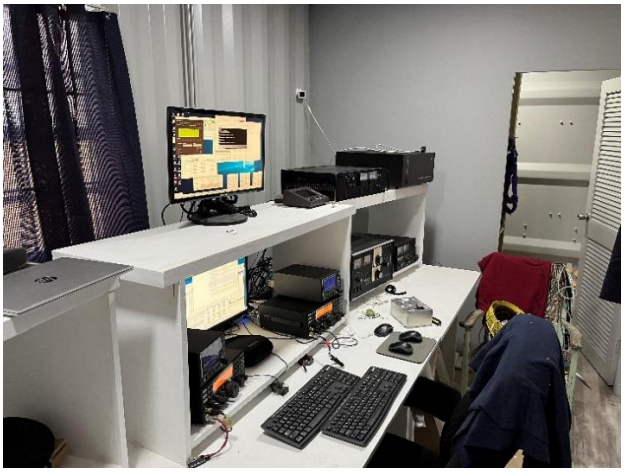
After about 20 years at my location in Warleigh, the large farm where my Barbados station was located was sold. The new owners were not interested in continuing my arrangement and I needed to dismantle the station. I had stored most of the radio gear, but the towers and antennas needed to be removed. Then Covid hit and I could not be there for the dismantling of the station. A local team took it all down and piled it into a shipping container.

Once I could return to 8P in 2021, I began looking for a new QTH. A broker found a piece of raw land on a plateau near the highest point on the island. There is a water view from the north through east and around to the southwest. A much better Europe take off since the old place had a 500 foot rise over 2 miles.

The land was partially cleared, but no utilities and no structures. For a shack, I decided to have a shipping container converted. It would be put in parallel with the existing container with a roof spanning the space between them as a covered work/rest area. The roof is not done yet. The shack will have a rest/break room, bathroom, operating area and switching closet. The attached pictures show the floor plan and inside shots of the operating area and switching closet as they were being assembled.



The operating area has three benches: A center SO2R position. A position to its left for M/S or M2 operations and a position to the right with the amps.



Like the old station, the goal was to get all accessory gear, switches, and cables away from the operating position. The picture is the rack in the switching closet before being wired. The top shelf has the 8X3 switching matrix. The middle shelf has the triplexers and filters. The bottom shelf has other accessories like remote power control, rotor boxes, and watt meters. To the right of the rack is the single point ground plate that has the station subpanel, lightning arrestors, and some switching gear. All cables come in through the holes in the wall and underground to the towers.

There are three towers. Two Rohn 45 towers are aligned broadside to Europe. Each has two fixed tribanders and a rotary 40M Moxon on top. Two of the tribanders are fixed on the US and two are fixed on EU. US and EU are roughly 90 degrees apart. There is a third tower from the old QTH that has a rotatable Skyhawk tribander and an 80-meter inverted V as a reference antenna.

Between the two R45 towers is a side fed loop broad side to Europe. Between one of the R45 towers and a 100+ foot palm tree is another 80-meter loop broadside to the US. Between the same tower and the freestanding tower is a 160 T antenna with about 3000 feet of radials.

There is also an RX 4 square built, but not quite working as it did at the other place. This still needs work.

The station is capable of being remotely operated and I was on for both modes of the NAQP with no issues. All the functionality of being local is available on the remote, except the ability to fix anything if it breaks.

We broke ground in July, and my wife and I took numerous trips down to build subassemblies and keep progress moving. Ultimately the antennas were installed in one grueling week in December with the help of W2GD. The site has electrical and fiber internet. Water is connected, but supply is intermittent.

There is still a lot to do, and test. Need to test all of the antennas, feedlines and switching with full power. Need to begin the process of eliminating interstation interference. Also need to find a low band receiving antenna solution if the 4 square has too much interaction with the towers and antennas. Another item is that there are some noise sources that are not severe, but need to be tracked down, especially if I am generating them myself.

Every aspect of the project has a story of its own. Some pleasant, some frustrating, but the sheer total was overwhelming at times. The mental model of the construction was to make it a giant kit. Prebuild all cables, switching gear, mounting brackets, etc. at home, and do as little engineering, procurement and fabrication as possible down there.

Would be remiss if I did not mention my wife (KA1JJR) who has offered unlimited moral support, physical labor and solution finding over the last six months. Would not have been possible without her.

Remembering K3ZO – Don K4ZA

It was summer, 1988. I had just been offered a job in the Radio/TV/Film Department at the University of Maryland, in College Park. Having never been to Maryland before, I thought it would be wise to ask someone who lived there about housing, cost of living and so forth.

I thought of Fred immediately, so I looked him up on the PVRC roster and called. He was more than gracious, explaining he'd just retired from the US Information Agency and he and his XYL would be going overseas for an extended trip, and that I could stay in their home while they were gone. We made plans for me to show up for what he explained was an annual PVRC tradition—something called the Fowl Fest, held in his backyard.

I got there right at noon, and there were literally dozens of cars on the street. But of more interest was a giant (Rohn 80) 120-foot tower in the yard of the house next door, holding a big Telrex 15M Yagi along with an 80M beam, plus two AB-105 towers in Fred's own backyard. These held his dual-driven (W6PU design) triband quad and the old Telrex 40M Yagi.

I was welcomed into the group by everyone. I was pretty nervous, as the PVRC members had been my heroes since first licensed—I always looked for certain calls in the contest results in QST, for instance. Always top scorers and always loud!

Anyway, I moved in and began an association I will value forever. I began operating at W3LPL that fall, and I began to do antenna/tower work for Fred, as well. While Fred and Somporn were overseas, I found several things in their house not to be working, or working incorrectly. AC outlets, phones, TV, and so forth. I simply fixed these things, I also found myself learning to work CW without any filters. At that time, Fred was using TS-830S radios, which were stock 2.4 kHz SSB filters. At first, I struggled with this, but eventually found myself liking it—there was no need for the RIT, for example. The passband was wide enough. Fred explained it was logical to operate this way, especially

in contests, where guys would often call off frequency, and he would copy them regardless.

When they came back home, his XYL Somporn was delighted to find so many things had been repaired. In appreciation, she decided to prepare me an “authentic” Thai dinner, which sort of excited me, as I knew next to nothing about Thai food. She spent considerable time on it, including yelling at Fred, who was not above nibbling or eating items on the dinner table marked for Khun Don. I was somewhat taken aback when she offered me the first item, a bowl of something she called “soup,” but which appeared to be simply water with some parsley in the bottom of the bowl. I thought the top of my head was coming off with the first spoonful. Regardless, it was very good. As was the remainder of the meal. My obvious enjoyment of the meal cemented our friendship totally.

The routine was pretty easy there. I’d awaken and get up every day at 5:00-5:30AM, throw on some clothes and head to the shack, mostly for Gray Line openings. Fred would come down around 6:00 and we’d swap chairs. Everything was done the “old fashioned way,” by turning the radio’s big knob; Fred had no Internet in the basement. By 8:00 I’d be on the Beltway heading to UMCP. I’d usually get home by 6:00 and after a quick bite to eat, head to the shack. If I had papers to grade or other professorial tasks, I’d get to those by 9:00 typically. I’d check the bands later, but usually be in bed by midnight. Such was the routine. In three short months, I found myself to be totally tired - worn out. Fred, however, was bright and chipper and seemingly full of energy.

This puzzled me to no end. He was obviously in worse shape than I was. I once watched him eat an entire pound of bacon at breakfast. He had no exercise. I mowed the yards and carried in Somporn’s groceries, plus the occasional tower climb. Finally, in early December, we had a teacher work day and I stayed home. At 2:00PM, Fred explained he was going upstairs for their “daily siesta,” a habit they had gotten into in Latin America. Each day, he and Somporn would catch three or four hours of rest. No wonder I could not keep up!

I stayed there four years, learning a lot and working a lot of DX. The station played very well. I became the President of PVRC in the next year, to my amazement, receiving heavy support from Andy Anderson W3XE, Howard Leake W6AXX and Larry Fadner W3GN, among others.

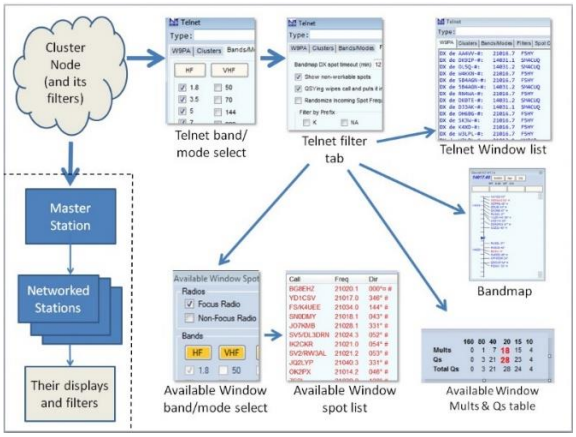
Fred’s place was one of the “obvious stops” from visiting DXers, and that was another bonus of living there. As were the National Capital DX Association gatherings, which sometimes took place there as well. I tried to practice what I’d learned from my Grandfather—I remained quiet, listening carefully, and learned a lot.

To say I miss those days does not begin to cover the memories. But I shall not forget them.

Thoughts on Filtering Spots in N1MM Logger+ – John K3TN

If you have operated assisted at all, you've probably already figured out how to at least use the N1MM telnet window to connect to your favorite cluster and voila – calls started showing up on your bandmap and you were off to the races. The N1MM website has excellent tutorial information on all the features of the telnet window here.

Now, how to best use spots to increase your points per minute of butt in chair (PPMBIC)? What is the best strategy for you to most efficiently turn a spotted station into points? Doing so means making sure spotted calls are accurate, timely and relevant to the contest you are operating in. This article will focus on filtering spots to increase productivity and accuracy.



Spots are used in 3 places in the N1MM software:

The bandmap - here you don't really care if a spot comes in from a non-contest band segment (like in the phone segment when you are in a CW test), because you'll never see it on the bandmap anyway. I haven't seen mode be a big issue during CW contests - it seems like both RTTY and FT8 get trampled in CW contests, there aren't many phone spots anyway (this may change if self-spotting becomes rampant). But, the N1MM bandmap uses the filters you can set up in the Telnet window for band/mode filtering (Filters tab) by just checking the Contest box when you right click on the bandmap window.

The Available Mult/Q window - here you definitely don't want useless spots getting on the list. The filters from the Telnet window apply here but this window also has a Band Modes button that adds filtering that only impacts what shows up in the available mult/q list. You might want to have more show up on the bandmap (to indicate QRM, say) while the Avail Mult/Q list should really be highly and immediately workable spots only.

The Info Window - this is where rate information shows up, but if you check the box for Message Window you will see a message if you (the call sign that is in the station properties setting) are spotted. I like to keep track of the latest one - if my rate feels slow but I was just spotted I will hang in there and hit F1 again; if the rate meter bars are dropping and I haven't been spotted within 6 minutes or more, I'll hit ALT-A and start chasing spots. Those messages scroll by pretty fast but another cool thing in the Info

Window, down at the bottom of the right click menu you will see Show RBN Spots of This Station and see the last 25/50/100 RBN spots of your call. Actually, whenever I find myself looking at that while running, I know the rate is too low...

Filtering on your PC or in the cluster: These days this is largely a religious/YMMV debate. But, if you are running an old and/or underpowered PC, you may occasionally see a message in the Info Window that Logger+ deleted some older spots. This is an indication that the Logger+ saw CPU utilization get too high and rather than slow down overall, it tries to reduce the load by deleting some spots. If you ever see this, it is likely a good thing for you use filters on the cluster. You never want to have those times where the Entry window seems to freeze up.

If you never see that message, or if the entry window never goes into molasses mode, and you know you are using a newer, higher-powered PC, that reason for doing more filtering at the cluster goes away. So, you can use the right click menus on the Telnet window Filter tab and the Available Mults/Qs Band Modes button to do any filtering on your PC.

But, I still like to do more filtering at the cluster because I want to minimize the number of times I click on an un-workable spot. Those rental stations in Maine spotting EU an hour before or AS an hour after I can work the opening is not what I want to click on. Plus, having to hit ALT A or CTRL ARROW 10 times to find a workable spot really isn't much faster than just plain old dial spinning. But there are many who feel the opposite - YMMV.

The first step is selecting the right cluster for you and knowing how to set up filters in the telnet window. The N1MM site has excellent instructions on this here. Take note of which type of cluster you are using, since there are two and they use different command syntax: (1) AR Clusters such as W3LPL, W9PA and K3LR; (2) CC clusters like VE7CC. I'll focus mostly on AR clusters – for VE7CC, take advantage of his free CC Cluster software here.

Then you can craft some filter commands that will populate the buttons on the bottom of the Telnet window. Here's an example of command for an AR cluster:

DX TEST,SET DX FILTER NOT SKIMBUSTED AND SPOTTERSTATE=[MD,PA,VA,WV] AND CTY<>K OR CALL=K3TN

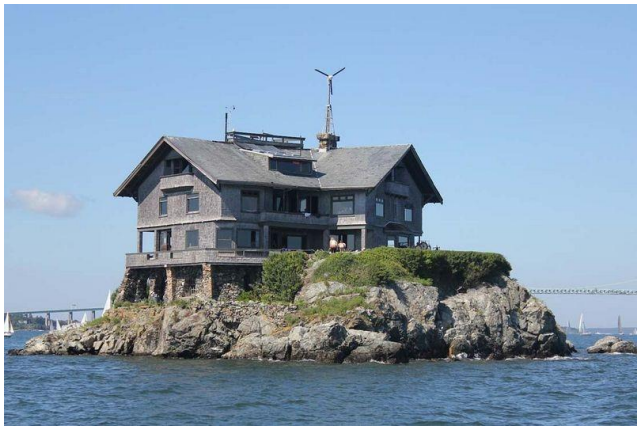
This filter is for a DX contest. It only shows spots from sources in MD, PA, VA and WV that are not busted calls and are not spots of US based stations and will also show when K3TN is spotted.

SKIMVALID vs. NOT SKIMBUSTED – SKIMVALID in a filter will only pass spots when 3 skimmers have spotted the same call. NOT SKIMBUSTED requires at least one skimmer to state a spot is definitely not a busted call, using CT1BOH's quality algorithms. When using NOT SKIMBUSTED as a filter, you avoid the vast majority of bad spots but often see the first spot while the guy is still sending CQ! Read CT1BOH's 2013 writeup on his quality filtering that is now being widely used - here

AND CTY <>K says no spots of US stations. In the ARRL you might want to filter out VE as well. *OR CALL=K3TN* means show when I'm spotted (insert your call there)

Portable Contesting - Rick N1RM

In August 2018 N1RM attended a family gathering at “Clingstone House”, a century-old building on a rock in Narragansett Bay just outside of Newport Harbor RI. The rock it sits on is only slightly larger than the footprint of the house and can only be reached by boat.



The antenna was a 20-meter dipole attached to a pole on the widow’s walk on the roof. The dipole legs were extended by attaching the ends to bean bags tossed out on the roof. The rig was a KX2 running on a battery (the house is off the grid) providing a solid 3-5 watts out. In 2 hours of operating, I managed to eke out 21 Qs to 15 countries in the WAE CW contest operating from a patio chair. Each time I announced a new country worked there was an exuberant cheer from the other attendees, probably due to a nascent interest in ham radio – or maybe it was the beer. The only downer was when I found out that there was no QRP category!

PVRC Scholarship Fund – New ARRL Contact Info - Ted WA3AER

Our new contact at ARRL for making donations to the PVRC Scholarship Fund using your credit card is Regina Galuppi. Regina may be reached via 860-594-0291. Or, you may call the ARRL Main Number and ask for the Development Office. The ARRL main phone number is 860-594-0200. ARRL hours are 8:00AM to 5:00PM Eastern Time.

Your donations to the PVRC Scholarship Fund are tax deductible.

PVRC DXCC Challenge Standings – Frank W3LPL

Below are the DXCC Challenge totals for PVRC members, transcribed from the ARRL DXCC data as of the 20th of each month or so. Thanks to Frank for the data each month to make this a regular feature. Please report any omissions or errors to Frank.

CALL	DXCC	CALL	DXCC	CALL	DXCC	CALL	DXCC
W4DR	3199	N4TL	2504	K3SX	1959	W8AKS	1466
W3UR	3170	K3JT	2495	N3KS	1906	KM3V	1449
W3LPL	3165	WS6X	2493	K4EU	1871	K3WC	1430
K4CIA	3131	W4VIC	2449	W3IP	1867	N3HBX	1428
N2QT	3093	W2GG	2436	N3ND	1867	W3US	1410
W4PK	3038	W3OA	2426	K3AJ	1818	WA3EKL	1402
N4MM	2987	N4GG	2407	W3KB	1815	N8II	1390
W3DF	2979	W2YE	2334	W3DM	1791	W4PRO	1377
WX4G	2960	N3RC	2328	W2CDO	1761	W9GE	1364
K1HTV	2950	WA2BCK	2316	KE4S	1758	AK3E	1348
K5EK	2937	K1ZZI	2314	N4GU	1738	NR4M	1326
N3NT	2929	W3YY	2297	N4XYZ	1720	W3NRJ	1325
W0VTT	2910	K0GD	2289	W3XY	1717	ND3F	1319
K4SO	2907	K4WNW	2278	W4GP	1710	N1SZ	1317
K2PLF	2903	K3TN	2237	N3OC	1706	K4ZA	1313
W3LL	2896	KA4RRU	2234	KF7NN	1698	KG4USN	1292
KG7H	2895	NW4V	2219	K4QE	1692	K1RH	1291
W3KX	2876	K4FJ	2214	NE3H	1668	N1EK	1217
K1AR	2872	K1EFI	2190	K3WI	1652	N3RR	1199
N4DB	2853	N4ZH	2188	W3UL	1637	W4NF	1105
KG4W	2820	N4JQQ	2161	K3STX	1615	K3IXD	1090
K3WA	2816	W3MR	2160	K3KY	1606	NE3K	1073
AB3CV	2793	K2BA	2153	N3MK	1602	N3COB	1049
K3RA	2685	N3QE	2147	KE3X	1588	W4ZV	1047
WB3AVN	2663	W3TN	2125	WB4DNL	1586	W3OU	1046
N3MN	2657	K3PU	2107	NA1DX	1564	K4ZW	1044
W4FQT	2622	W3GG	2071	N3AO	1527	K4VX	1021
K5RT	2604	N4NW	2068	WB2ZAB	1522		
K1GG	2585	AA4NC	2061	AA4FU	1519		
N3KK	2575	N3KN	2028	K4HQK	1518		
W3BW	2550	W3FOX	2002	KU1T	1501		
N4QQ	2541	W0YVA	2001	N4ZR	1496		
K5VIP	2506	K5RJ	1961	N3AIU	1487		

Membership News – Tim N3QE

Chapter leaders please remember to complete the Meeting Attendance Report. Members can check and update their roster details via the Roster Lookup.

Upcoming Contests – from WA7BNM

March 2023	
+ ARRL Inter. DX Contest, SSB	0000Z, Mar 4 to 2400Z, Mar 5
+ Stew Perry Topband Challenge	1500Z, Mar 11 to 1500Z, Mar 12
+ North American Sprint, RTTY	0000Z-0359Z, Mar 12
+ BARTG HF RTTY Contest	0200Z, Mar 18 to 0159Z, Mar 20
+ Russian DX Contest	1200Z, Mar 18 to 1200Z, Mar 19
+ Virginia QSO Party	1400Z, Mar 18 to 0400Z, Mar 19 and 1200Z-2400Z, Mar 19
+ CQ WW WPX Contest, SSB	0000Z, Mar 25 to 2359Z, Mar 26

RED – scores count towards PVRC 5M Awards or Challenge Program

Editor's Last Word – John K3TN

Thanks to Don K4ZA, Tom W2SC, Rick N1RM, Ted WA3AER and Frank W3LPL for contributions to this issue of the PVRC newsletter.

Contesting sure is a different kind of fun when 10m is wide open all day! I remembered about the Online Contest Scoreboard on Saturday and made the mistake of checking it from my phone while I was at a park with my grandson. I saw I was leading W3IP but then it updated and Mike made a huge leap forward with a big jump in multipliers.

A few more times down the slide for young Smith Franklin and I told him it was time for his nap! Back to battling to stay ahead of Mike…

The quality and usefulness of the PVRC newsletter depends on contributions from members. If you have photos from club meetings, screenshots of new contest software, or writeups on station improvements or contest war stories, send them in any format to jpescatore at aol dot com.

From the PVRC Treasurer – Ted WA3AER

PVRC has chosen not to implement an annual dues requirement. We depend on the generosity of all 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:

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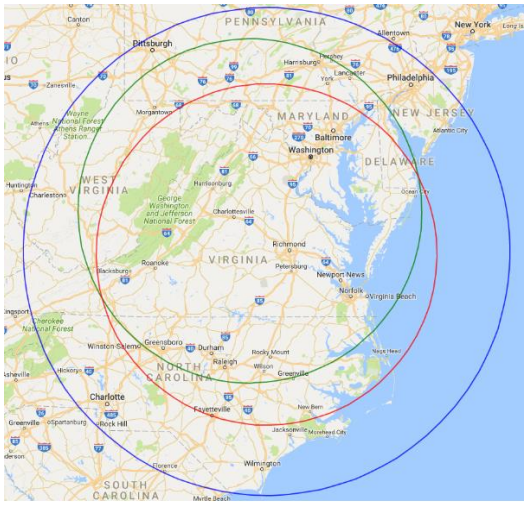
Donations to PVRC are not tax deductible

Eyeball QSO Directions

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



Green: ARRL VHF Circle
175 mile radius
Around 38.075N,
78.171W

Red: ARRL HF Circle
175 mile radius
Around 37.43168N,
77.858482W

Blue: CQ HF Circle
250 mile radius
Around 37.43168N,
77.858482W

Now a Word From Our Sponsors

PVRC doesn't ask for dues, but the Club does have expenses. You can also support the Club by buying from the firms listed who advertise in the newsletter!

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Plan Your Tower/Antenna Project with DX Engineering!

PHILLYSTRAN

High Performance Broadcast Tower and Antenna Guy Lines

Phillystran manufactures high performance guy lines made from Aramid fiber with a strength-to-weight ratio five times greater than steel. Plus, these guy lines are electrically "transparent," so you won't have the EMI, RFI, and negative signal issues associated with steel cable. Other advantages include complete isolation of the tower guy system from the antenna field, improved signal coverage by eliminating distortion caused by re-radiated signals, maintenance-free installations, no need for insulators, and a neat tower appearance. **Enter "Phillystran Aramid" at DXEngineering.com. From $.99 per Foot**

DX ENGINEERING

Tower Accessory Shelves

Ever try to pound in a one-piece rotator plate to get it to fit in the midpoint of your tower? That's not a problem with easy-to-install Tower Accessory Shelves from DX Engineering. The DXE-AS-455G shelf for Rohn 45G/55G and Amerite 45/55 towers features a unique multi-piece design for hassle-free installation. It comes with hardware and three adjustable stainless steel corner brackets that are bolted to the plate. The DXE-AS25 model is an excellent choice for mounting a rotator to your 25G tower. It includes three integral brackets and a complete set of mounting hardware. **Enter "DXE Shelves" at DXEngineering.com. From $79.99**

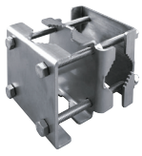
Professional Guy Line Tension Gauges

LOOS & CO. CABLEWARE® DIVISION

Avoid serious safety issues by ensuring that your guy lines are properly tensioned. Known for their convenience and durability, these Loos anodized aluminum gauges offer professional-level accuracy and ease of use. They'll gauge the tension of your tower guy lines, large tent supports, and even sailboat rigging. Choose from three options: 3/32"-5/32", 70-800 lb. range; 3/16"-1/4", 180-2,000 lb. range; and 1/4"-3/8", 550-4,500 lb. range. Gauges come with detailed operating instructions. **Enter "Loos Tension" at DXEngineering.com. From $139.99**

Genius Clamps

DX ENGINEERING



Anyone who has ever used these clamps in their antenna-building projects understands why they're called "Genius," especially if they've ever struggled to mount a horizontal cross bar to a piece of vertical tubing. DX Engineering's Genius Clamps are the ideal way to create a tower standoff to side-mount an extra antenna. These stainless steel clamps are sized for 1" to 2" O.D. pipe in both horizontal or vertical orientations. Choose from two versions: one for a parallel standoff and another to create a right angle mount for installing a vertical mast. Sold in pairs. Hardware available separately. **Enter "DXE Genius" at DXEngineering.com. From $69.99**

UNIVERSAL TOWERS

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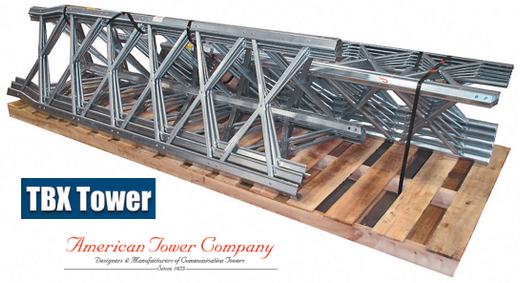
American Tower Company



Towers

Make DX Engineering your go-to source for proven antenna towers. Choose from Rohn/American Towers, including Rohn G-Series guyed towers and Amerite 25 Series bracket towers; lightweight freestanding aluminum towers from Universal; and packaged tower kits from TBX, which come with rotator plate, top plate, hardware pack, and top section steps. **Enter "Tower" at DXEngineering.com.**

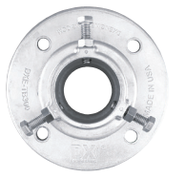
DX ENGINEERING

Heavy-Duty 4130 Chromoly Steel Masts

Serious antenna builders know you can't compromise on anything. With that in mind, DX Engineering offers you super-strong masts perfectly suited to Amateur Radio applications. Available in 2" or 3" O.D., these galvanized steel masts have a 1/4" wall thickness for extra rigidity. The masts have a yield stress rating over 100,000 psi, a minimum Rockwell hardness of 96, and a galvanized coating that meets ASTM A123/M specifications. They are sold in 11' or 22' lengths; DX Engineering will help arrange low-cost truck freight shipping and ensure that the ordering process will go smoothly. **Enter "4130 Chromoly" at DXEngineering.com. From $649.95**

DX ENGINEERING

Advanced Design Thrust Bearings



The Advanced Design 2" (DXE-TB300) and 3" (DXE-TB400) Thrust Bearings from DX Engineering feature ball bearings that ride on an all-metal surface, not a seam like other thrust bearings, to promote a longer service life. These precision bearings are made to much higher tolerances, eliminating the slop found in other thrust bearings. They can also handle much greater static loads, which reduces stress on the rotator and makes rotator service possible without removing your antenna—saving you tons of hassle, time, and money. They fit either a 2" or 3" O.D. mast and most common tower sizes from Rohn and American Tower. **Enter "DXE Ball Bearing" at DXEngineering.com. From $239.99**

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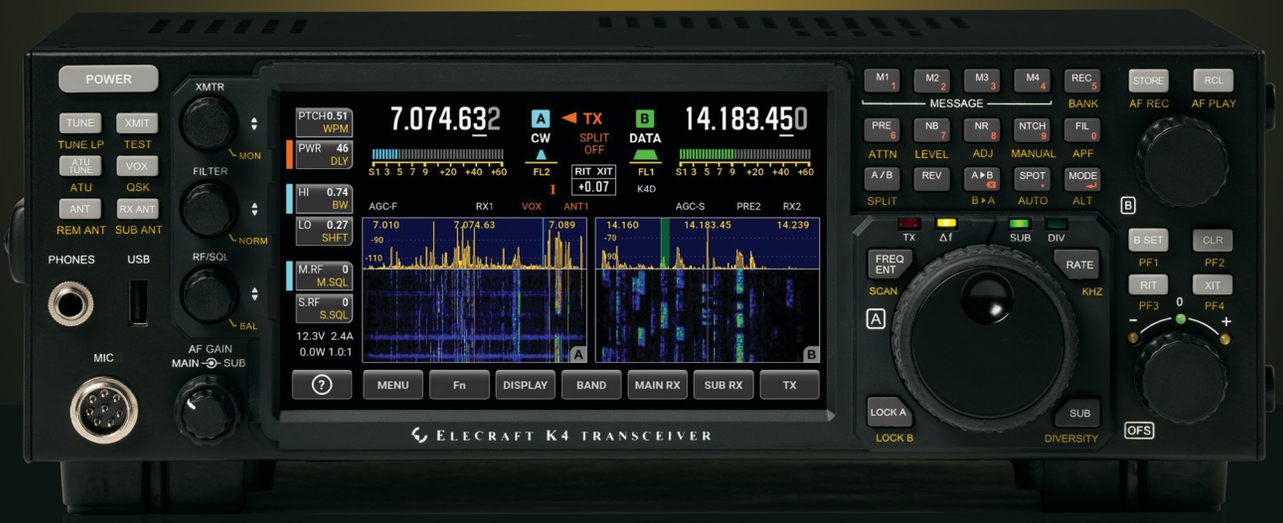
ELECRAFT K4

High-Performance Direct-Sampling SDR



A direct-sampling SDR you'll love to use

Our new K4 transceiver harnesses advanced signal processing while retaining the best aspects of the K3S and P3. It features a 7" touch display, plus a rich set of dedicated controls. Per-VFO transmit metering makes split mode foolproof. Band-stacking registers and per-receiver settings are versatile and intuitive. Control usage information is just one tap away thanks to a built-in help system.

Modular, hybrid architecture adapts to your needs

The basic K4 covers 160-6 m, with dual receive on the same or different bands. The K4D adds diversity receive, with a full set of band-pass filters for the second receiver. (Thanks to direct RF sampling, there's no need for crystal filters in either the K4 or K4D.) The K4HD adds a dual superhet module for extreme-signal environments. Any K4 model can be upgraded to the next level, and future enhancements–such as a planned internal VHF/UHF module–can be added as needed.

Single or dual panadapter, plus a high-resolution tuning aid

The main panadapter can be set up as single or dual. Separate from the main panadapter is our per-receiver *mini-pan* tuning aid, with a resampled bandwidth as narrow as +/- 1 kHz. You can turn it on by tapping either receiver's S-meter or by tapping on a signal of interest, then easily auto-spot or fine tune to the signal.

Comprehensive I/O, plus full remote control

The K4's rear panel includes all the analog and digital I/O you'll ever need. All K-line accessories are supported, including amps, ATUs, and our K-Pod controller. The USB display output supports its own user-specified format. Via Ethernet, the K4 can be 100% remote controlled from a PC, notebook, tablet, or even another K4, with panadapter data included in all remote displays. Work the world from anywhere–in style!

K4 KEY FEATURES

- Optimized for ease of use
- Modular, upgradeable design
- 7" color screen with touch and mouse control
- ATU with 10:1+ range, 3 antenna jacks
- Up to 5 receive antenna sources
- Full remote control via Ethernet

The K4 interfaces seamlessly with the KPA500 and KPA1500 amplifiers

'The performance of their products is only eclipsed by their service and support. Truly amazing!' **Joe - W1GO**

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• Hybrid SDR Configuration • Unparalleled 70 dB Max. Attenuation VC-Tune • New Generation Scope Display 3DSS • ABI (Active Band Indicator) & MPVD (Multi-Purpose VFO Outer Dial) • PC Remote Control Software to Expand the Operating Range • Includes External Power With Matching Front Speaker

FTDX10 | *HF/50MHz 100 W SDR Transceiver*

• Narrow Band and Direct Sampling SDR • Down Conversion, 9MHz IF Roofing Filters Produce Excellent Shape Factor • 5" Full-Color Touch Panel w/3D Spectrum Stream • High Speed Auto Antenna Tuner • Microphone Amplifier w/3-Stage Parametric Equalizer • Remote Operation w/optional LAN Unit (SCU-LAN10)

FT-991A | *HF/VHF/UHF All ModeTransceiver*

Real-time Spectrum Scope with Automatic Scope Control • Multi-color waterfall display • State of the art 32-bit Digital Signal Processing System • 3kHz Roofing Filter for enhanced performance • 3.5 Inch Full Color TFT USB Capable • Internal Automatic Antenna Tuner • High Accuracy TCXO

FTDX101D | *HF + 6M Transceiver*

• Narrow Band SDR & Direct Sampling SDR • Crystal Roofing Filters Phenomenal Multi-Signal Receiving Characteristics • Unparalleled - 70dB Maximum Attenuation VC-Tune • 15 Separate (HAM 10 + GEN 5) Powerful Band Pass Filters • New Generation Scope Displays 3-Dimensional Spectrum Stream

FT-710 Aess | *HF/50MHz 100W SDR Transceiver*

• Unmatched SDR Receiving Performance • Band Pass Filters Dedicated for the Amateur Bands • High Res 4.3-inch TFT Color Touch Display • AESS: Acoustic Enhanced Speaker System with SP-40 For High-Fidelity Audio • Built-in High Speed Auto Antenna Tuner

FT-891 | *HF+50 MHz All Mode Mobile Transceiver*

Stable 100 Watt Output • 32-Bit IF DSP • Large Dot Matrix LCD Display with Quick Spectrum Scope • USB Port Allows Connection to a PC with a Single Cable • CAT Control, PTT/RTTY Control

FTM-300DR | *C4FM/FM 144/430MHz Dual Band*

• 50W Output Power • Real Dual Band Operation • Full Color TFT Display • Band Scope • Built-in Bluetooth • WiRES-X Portable Digital Node/Fixed Node with HRI-200

FT-2980R | *Heavy-Duty 80W 2M FM Transceiver*

• 80 watts of RF power • Large 6 digit backlit LCD display for excellent visibility • 200 memory channels for serious users

FTM-200DR | *C4FM/FM 144/430MHz Dual Band*

• 1200/9600bps APRS® Data Communications • 2" High-Res Full-Color TFT Display • High-Speed Band Scope • Advanced C4FM Digital Mode • Voice Recording Function for TX/RX

FTM-400XD | *2M/440 Mobile*

• Color display-green, blue, orange, purple, gray • GPS/APRS • Packet 1200/9600 bd ready • Spectrum scope • Bluetooth • MicroSD slot • 500 memory per band

FT-70DR *C4FM/FM 144/430MHz Xcvr*

• System Fusion Compatible • Large Front Speaker delivers 700 mW of Loud Audio Output • Automatic Mode Select detects C4FM or Fm Analog and Switches Accordingly • Huge 1,105 Channel Memory Capacity • External DC Jack for DC Supply and Battery Charging

FT-5DR *C4FM/FM 144/430 MHz Dual Band*

• High-Res Full-Color Touch Screen TFT LCD Display • Easy Hands-Free Operation w/Built-In Bluetooth© Unit • Built-In High Precision GPS Antenna • 1200/9600bps APRS Data Communications • Supports Simultaneous C4FM Digital • Micro SD Card Slot

FT-65R | *144/430 MHz Transceiver*

Compact Commercial Grade Rugged Design • Large Front Speaker Delivers 1W of Powerful Clear Audio • 5 Watts of Reliable RF Power Within a compact Body • 3.5-Hour Rapid Charger Included • Large White LED Flashlight, Alarm and Quick Home Channel Access

FTM-6000R | *50W VHF/UHF Mobile Transceiver*

• All New User Operating Interface-E2O-III (Easy to Operate-III) • Robust Speaker Delivers 3W of Clear, Crisp Receive Audio • Detachable Front Panel Can Be Mounted in Multiple Positions • Supports Optional Bluetooth® Wireless Operation Using the SSM-BT10 or a Commercially Available Bluetooth® Headset

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