Potomac Valley Radio Club Newsletter

June 2008 Edition

Visit us on the web at www.pvrc.org and www.pvrcnc.org

See You On The Air for the PVRC Reunion
And in person at the W3LPL Open House,
Saturday, June 21!

From The President

Ken K4ZW

In the January PVRC Newsletter, I talked about PVRC's role of promoting amateur radio and contesting, engaging in competitive contesting as a group, and of course, the social aspect of the hobby we all enjoy. The latter is alive and well as you will see elsewhere in the newsletter with accounts from Dayton. I certainly had a good time! We also have a busy open house schedule starting this month.

A good opportunity to promote our hobby takes place this month with Field Day. Many a ham received their first exposure to contesting during Field Day. If you participate in Field Day, keep an eye out for visitors or others who might be interested in our sport. Make sure they feel welcome and that they get a dose of the enthusiasm we all share. And lastly, contest results are starting to come in from this past fall and winter. How did we do? Pretty well thank you!

PVRC finished #2 in the ARRL 160 Meter contest, just 300K points behind the Society of Midwest Contesters. In the ARRL VHF SS contest we finished a close #2, a first place finish in the 2008 ARRL RTTY Roundup, a very close #2 (100K points) behind NCCC in CQWW RTTY, and a #1 finish in the ARRL 10 Meter contest. A line from the League's write-up characterizes our effort perfectly: "The only club to motivate over 50 members to send in entries on its behalf this year was the Potomac Valley Radio Club, 76 logs from PVRC members combined for 1,725,518 points and a solid victory." Well done, folks! If you participated in one of these contests, please consider writing an article with further analysis and highlights.

And that brings me to Sweepstakes.

We finished a respectable second to our rival, the Northern California Contest Club, NCCC.

The margin of NCCC's victory was 1,130,686 points. NCCC submitted 273 logs to PVRC's 241.

A simple analysis shows that another 32 logs with 40,000 points each would have given us enough to surpass NCCC. 40,000 points is roughly 275 QSO's and 73 multipliers. The point to take away from last year's result is that we are competitive and we have all the ingredients necessary to win.

Later this summer I will begin to engage the club's officers, chapter leaders, and others to implement a strategy for our Sweepstakes effort this fall. The goal is simple, to bring the SS gavel back to PVRC. In the mean time, enjoy your summer and I hope to see you at one of the upcoming open houses and the PVRC Reunion.

Mark Your Calendar

June 7-8:	PVRC On-Air Reunion
June 8:	*Manassas Hamfest*
June 14-16:	ARRL VHF Contest
June 17:	"Forecasting Space Weather" talk at the Air & Space Museum
June 21:	***W3LPL OPEN HOUSE***
June 28-29:	ARRL Field Day
July 12-13:	IARU HF Contest
August 3:	*Berryville Hamfest*
August 9-10:	WAE CW Contest
August 16:	***FOWLfest @ W3YOZ***
August 23:	***NR4M OPEN HOUSE***

The History of Yaesu Musen

(from July, 1989 edition of the NZART BreakIn)

Television was first introduced to the Japanese public in the early 1950s, and by the middle of the decade a great demand had developed for television service in Tokyo. Sako Hasegawa, a recently graduated electronics engineer from Waseda University recognized this demand and formed General Television Services in Omori, Tokyo in 1956. In addition to the business prospects, this provided a fertile environment after working hours for Mr. Hasegawa's experimenting curiosity.

Having read of the work in the United States on Single Sideband (SSB) radio telephone, Mr. Hasegawa constructed several filter-type Single Sideband generators based on the concepts of Arthur Collins, and introduced SSB to the airwaves in Japan through amateur radio under the callsign JA1MP. Other radio amateurs were quick to hear of his work and he soon found himself receiving requests for complete transmitters and receivers.

To deal with these requests Mr. Hasegawa incorporated the Yaesu Musen Company Ltd in 1959 to produce radio communications equipment for radio amateurs. Yaesu Musen then absorbed General Electronic Television and began manufacturing the FT-20 SSB Transmitter under the Yaesu brand name. Foreign amateur radio operators soon began to hear of the Yaesu name, and in 1961 Yaesu Musen began exporting to Australia, followed soon afterwards to Switzerland, Germany and the United States, where Yaesu equipment rapidly became known for its innovative features and quality construction.

In 1966 Yaesu developed the first Japanese transceiver using transistors, the FT-100, and sales boomed in the following year. Virtually all profits were reinvested in expanding the company and the product line grew to include an all solid-state VHF FM transceiver in 1970, and the FT-101 all-mode HF station the following year. This transceiver was widely recognized as the first of its kind in the world. The company doubled in size in the next three years after introduction of the first HF amateur transceiver with digital frequency display, the FT-501. This was followed by the FT-7 series, which introduced all solid-state design to the HF transceiver market.

In 1976 Yaesu Musen Company established a separate design branch for an exclusively commercial product line, which grew to almost 45 different products in the next five years and has since surpassed Amateur products as the major production category. Yaesu Musen Company Ltd presently consists of nearly 700 employees, including nearly 70 design engineers, serving a network of over 120 independent distributors in over 60 countries in addition to the United States.

"Yaesu" is pronounced in three syllables: "ya" as in yacht, "e" as in red and "su" as in super. This is the name of a district in Tokyo where the first research laboratory was established. "Musen" is pronounced "mu" as in moon and "sen" as in sense, and is literal Japanese for "wireless".

Some years later, KEYKLIX (the magazine of the Santa Barbara Amateur Radio Club) included some personal observations from Ward French W3TQ (sk) who read the Break-In article. Ward recounts some early memories as follows:

"I first met Sako Hasegawa in 1960 while my wife and I were living in Yokohama. . At that time I was serving as Resident Executive for the Far East for Sperry Rand Corporation. Part of my duties were concerned with a continued liaison with the Japanese electronics industry. This, coupled with my interests in amateur radio, brought the fledgling Yaesu Musen activities to my attention, firstly as a source for a very fine ham band receiver and also as the producer of the excellent Single Sideband generator for use with the then prevalent AM transmitting equipment.

During the course of my efforts to secure more information about the company and its products, l visited the plant in Omori, a suburb of Tokyo. The company was housed in what appeared to be a private dwelling atop a low hill and surmounted by a quad antenna. Hasegawa-san turned out to be a pleasant and cordial individual who spoke excellent English. His staff, while few, were busily engaged in the various tasks of the manufacturing process. The aspects of concentrated attention I to the production of products of high quality were obvious. During my conversation with Sako, he stated his policy to be to bring to the marketplace products of the highest quality at a fair price, and to emphasize customer satisfaction through excellent service. These policies have not varied through the years, and the company has grown from the small Omori operation to large factory operations which support Yaesu's presence In Its domestic and international-markets.

Sako is to be personally congratulated on the degree of devoted and concentrated effort he and his employees give to the Yaesu product mix. Unlike Kenwood/Trio where that mix includes hi-fi components, Yaesu has concentrated its efforts for the most part in the amateur radio field.

A further observation is that the commendation is due Sako for his selfless devotion to his company, its products and its customers. I have visited company facilities many times and have accompanied him on his almost ceaseless rounds of company departments, checking here, correcting there, and never losing his composure or sense of humour. And he never forgets that he Is a ham, whether It is personally handling a customer complaint, to which he always gives his attention. About the only times I have seen him close to anger is when he has discovered that one of his people has failed to accord a customer the degree of courtesy and fair treatment called for by company policy.

Without going into detail, I am proud to have served Sako and his companies for many years as legal consultant, and as an officer and director."

PVRC Reunion Operation

From Mike, W3MC

I will be on as W3GRF in the Reunion, Fri & Sat evening times, and will try to get on later Sun afternoon until 0000z. Will use Lenny's old bug, one of his old Henry amps, and an S Line (not his - but he used to have one years ago.)

Dayton Musings …

from Will, AA4NC:

Hopefully Dayton is not a sign of the health of our ham radio hobby. From what I saw, attendance is continuing to drop. The average age of those in attendance is increasing with seemingly fewer young people coming along. It was noticeable how many people were using electric scooters, canes and oxygen bottles. The flea market was emptier than I have ever seen in my 20+ years of attending. I would estimate that ¼ of the seller spaces were empty.

On a brighter note for those of us more interested in the Radiosport aspects, the attendance at the Contest dinner was at capacity yet again, with many DX countries represented. Forum rooms were packed for the Contest and DX forums. As a sign of things to come, the Software Defined Radio forum that preceded the Contest forum was also standing room only. The much debated Skimmer software was demonstrated at the contest forum and was a contestant at the KCDXC Pileup competition. The good news is that a human (W9WI) defeated the skimmer. The Elecraft booth was busy, with orders for K3s coming in at a record pace according to the folks there. The new super SteppIR display antenna loomed above everything outside on a crankup tower. The Crowne Plaza suites and parties were very busy but it seemed that festivities ended earlier than usual. DL2AA and his 160 proof Austrian rum were absent this year, however moonshine was available at one suite which may explain some of the stories you may have heard already. I missed the SMC Hooters Bash on Thursday but I heard many PVRCers attended. Some even behaved themselves!

The mutant factor was definitely in play with lots of um "interesting characters" in attendance at the flea market. I was disappointed not to see the traditional Dayton "hard hat with lighted tower guy" however. Some of the more unusual things that I saw: A dog carrying a 2m HT, a 50 cal. Sniper rifle, lots of police lights and sirens, a female musician selling CDs featuring her nude picture on the cover, hard hats with 2m or 440Mhz halo antennas on top, a bluegrass music jam, an internet Podcast, at least 10,000 old Motorola handheld radios, a guy with a WWII era 50 lb. "portable" radio on his back, piles of unknown miscellaneous stuff with a "MAKE AN OFFER" sign that have been unsold at Dayton since the 1950's, and some plumbing pipe and a kitchen sink (just to prove you can find EVERYTHING there). The annual AA4NC search for the vehicle with the most antennas was won by an anonymous (no ham plates) SUV with a total of 14 visible antennas. Perhaps W3LPL is gearing up for multi-multi mobile?

I think that there is a transition occurring with many hamfests now from flea markets to more social events. The hamfests that will survive are the ones that bring hams of common interests together more for fellowship and education (Visalia, Dayton, SEDCO, etc.). The big flea markets are going away as EBay and internet classifieds make them obsolete. I personally go to Dayton to see old and new friends and to put faces to callsigns. Mission accomplished…

More Dayton Musings…

from Gene, W3ZZ:

I have not gone to Dayton since 2005 and as I am not getting any younger I did not intend to go back to Dayton - ever. However I was asked to attend an ARRL meeting and thus wound up spending from Tuesday afternoon until oh dark thirty Monday morning in Dayton. What is it that WC Fields said about Philadelphia? Make that double for Dayton! Personally this was one of the more interesting Daytons.

Knowing that I had to be there I volunteered to teach the VHF session for the advanced group at Contest University. This was my first experience with Tim Duffy's CU and I must say I was impressed. The presentations were excellent - even the RTTY presentation was interesting [the latter dig was directed at our esteemed northwest region leader, Bud W3LL.]

As usual in his presentation Frank Donovan told me a few things I didn't know or had not considered and in so doing provided a reason why my 40 meter sloper performs so poorly.

Overall there were fewer people than usual especially in the flea market which was almost deserted by Sunday. I heard several guesstimates for attendance and the average was down 30% compared to recent previous years.

You may hear differently from the spinmeisters but don't believe it. Lots of vendors - this still is the Las Vegas of ham radio. Big pileup at the Elecraft booth and strong traffic at the major's displays. Specifically I noted the N8LP LP-PAN broadband I/Q channel interface to run SDR software and the CW Skimmer is now a real product with real time delivery.

Downeast Microwave expects to deliver transverters with whatever filters they have decided on to replace the Toyos that are no longer available sometime in the 3 month timeframe. Joel Knoblock and staff from the RF Connection were representing the locals in the cable and connector area.

One thing has not decreased. Foreign visitors. As the US currency descends into third world status, Dayton becomes a bargain to the Europeans and Asians. Lots of DLs and particularly Russians from all countries. Among the visitors I saw were such notables as DL6RAI, RA3AAU, PY5EG, I2UIY [inducted into the contesting Hall of Fame along with Randy K5ZD], F6BEE, XE1KK, TG9AJR. Several VKs were at the VHF dinner. The PVRC was well represented at the contest suites.

I discovered a gentrified area of Dayton which was probably previously a slum - the Oregon District - which starts about 3 blocks east of the Crowne Plaza on 5th Street. Interesting shops and good food - outstanding Thai restaurant there. Speaking of food I attended the VHF dinner on Friday at the Holiday Inn North and the Contest dinner on Saturday at the Crowne Plaza. The purpose is to see your buddies but the food was slightly better than usual and a quick trip to Cheeseburgers and Beer or Spaghetti Warehouse was unnecessary.

The horrendous traffic was a bunch of bull. Except for the fact that if you followed the Hamvention directions sent in that E-mail you had plenty of aggravation. The freeway

(Continued on page 4)

Using A SDR Receiver

from Bob, W3YY

Tonight I had a QSO on 40 meters with a station I couldn't hear! Well, couldn't hear on my own receiver anyway. He was Q5, however, on the remote SDR (Software Defined Radio) receiver in the Netherlands to which I was listening!!! I had a nice QSO with Lars, LA2OKA, about 0443 UTC.

No more straining to hear that third level of weak European signals in contests. I can roll up my beverages, as they're not needed anymore.

Finally, I can hear as well as KT3Y!! And, looking for a clear frequency IN EUROPE on which to call CQ? No problem, just tune around and find one.

Just kidding. I don't intend to use this while DXing and contesting, as it's blatantly illegal, but it's another example of how technology is pushing the envelope.

At the Software Defined Radio forum at Dayton this year, mention was made of http://websdr.ewi.utwente.nl:8901/. This is a site at Amateur Radio Club ETGD, PA4THT, at the University of Twente in The Netherlands. They have an SDR radio setup that you can access over the Internet. It covers parts of the 80, 40, and 20-meter bands. You can select which band and mode you want and tune around. Oh, by the way, you can do this WHILE 25 OR MORE OTHERS ARE INDEPENDENTLY DOING THE SAME THING!! Want to do some passband tuning?

No problem, you can set the bandwidth and position of your passband. When your listening to this internet receiver it sounds exactly like any other HF receiver you've ever used. It's easy to forget you're listening to something over the Internet. I found myself reaching for the controls on my own transceiver to adjust something while listening to the remote SDR receiver.

Interesting notes:

1. Of course, I could hear MY OWN signal as it sounded in Europe, so I knew how loud I was there. I could see the difference between barefoot operation and using the linear. Ever wonder if you had propagation to some part of the world? Remote SDR's will solve that problem!!
2. Time delay. Only a fraction of a second. LA2OKA and I had a normal QSO with no latency issues.
3. Add a remote Software Defined Transmitter to the set up and REALLY be loud in EU or wherever you want!

In case you're an old timer who is now ready to throw in the towel over all this new-fangled stuff, there is still hope. I also worked DL6CMK and the remote SDR could not hear him. I guess the DL was skipping over PA!

More on SDR Receivers *from Pete Smith, N4ZR*

Being able to hear your own signal is definitely neat, but if you just want to find out if you're being heard in Europe, check out http://skimmer.dxwatch.com.

The network of CW Skimmer-equipped SDRs is growing every day, and there are typically at least 2 running. We're hopeful of being able to add signal-to-noise ratio as a measure of your strength as well, but that has not been implemented yet. In the meantime, just call CQ, and be sure to sign your call at least twice. Then wait for the skimmer network to spot you.

Dayton Musings *(continued from page 3)*

(from Gene, W3ZZ:)

was down to 2 lanes for about 3 miles but that was no problem.

I never saw Needmore construction though it was said that it involved only one short segment over a bridge. Besides I've found a secret route to take me from the Crowne Plaza to the Arena. From downtown in the morning you hardly see a car .

Finally the ravages of dislocation, off-shoring and plain ordinary bankruptcy is obvious all over Dayton. Large sections of Main Street just south of the turn for the Arena were abandoned and such institutions as the Shuckin' Shack are now gone. Several major businesses are gone or downsized like Delco, a major GM parts depot and even Wright Patterson is maybe a quarter its former size. We've all heard how tough those in Ohio have had it economically. I'm here to tell you it's worse than the politicians make it out to be.

from Bill, W3UL:

I was at the Hamvention on Friday and Saturday morning with my Australian and Canadian buddies. The only PVRC person with whom I had a QSO was Rich / KE3Q who was hard at work (doing real work, that is) at the ARRL Wi-Fi location. I know there were plenty of others there. There were not enough wearing PVRC ID's.....a thing we should probably encourage.

I attended the lightning protection forum and was again amazed at how much of an art this is.....although certainly most seem to agree that an outside single point ground arrangement is essential. I remain an "outside disconnect" person in the warm months after a hit (inside disconnected) 2 years ago.

I found the SDR (Software Defined Radio) Forum to be fascinating - and also found a sizeable number of the younger crowd there....a somewhat reassuring phenomenon for our aging group. Now, if the SDR and lightning groups can only get together and figure out a way to keep the nasty bolts from damaging all those semiconductors....

I also attended the Drake Forum - these guys are really enthusiasts! When I mentioned to the guy sitting next to me that I was mainly there to figure out how to sell my TR7A stuff he looked at me like I was a traitor!

"Forecasting Space Weather" lecture at the Smithsonian Air & Space Museum

On Tuesday, June 17th, Tom Bogdan, director of NOAA's Space Weather Prediction Center, will be speaking on "Forecasting Space Weather" at the Lockheed Martin IMAX Theater, National Air and Space Museum. Bogdan's group provides space weather guidance for satellites, air transportation communications and the national power grid infrastructure. Doors open at 6 p.m. for an informal educational program. Special free showing of "3D Sun" at 7 p.m. Meet the lecturer at 7:30 p.m. The lecture begins at 8 p.m. Admission is free, but tickets are required.

Help Tracking Down Noise in NoVA

from Karl, K4YT

I had a very bad noise problem and didn't know who to call. I finally called Dominion power's billing section as their web site has nothing on it for noise help.

I finally got Terry Thorn at 703-934-2527 who is located at the Dominion tech site near the corner of Jermantown Rd and Rte 50.. He has worked with N4RV and N3JT before, but as hadn't seen his name mentioned before, I thought others might be interested in knowing about him. He said to please give out his name and number rather than trying to go through the billing 800 number.

Upcoming Africa and Asia Travels

from Karl, K4YT

I was in TN8, Brazzaville, last month and will be going back at the end of the year for the final accreditation of our new embassy building.

I started trying to apply for a license but what a mess. The PTT man in charge of radio licensing directed us to their web site and said everything is on it for us to apply including the forms. No forms and nothing found discussing ham radio in their regs. I have asked our local employee to go back to the PTT this time with my FCC license and with the TN calls of DL7IO, EA3BT, DJ9ZB and DJ6SI. Maybe this info will spark his memory. If I knew this guy is the right guy I would have made sure he got a big QSL to process my application but without the forms etc you don't know. Waiting for a response from DJ6SI for some info as to who he spoke to who gave him licenses for both his trips or who he had to pass the big QSL to expedite his paper work. I would love to get on from TN.

I'm in ZS6 in early June, and plan on operating the IARU contest from Bangkok in July.

The Toolbox for June and July

from Don K4ZA

Some Remarks on Trams...

I've been reading the tower reflector of late, and there has been a long parade of posts and notes regarding antenna tramming—hauling antennas up and into place on the tower, without using a crane. Having done a bit of this work, I thought I'd toss out some tips and/or techniques I use, things that have evolved over the years, and made this potentially dangerous operation safer and somewhat easier to boot.

First, I'm talking about tramming, using only ONE line, with the load suspended beneath or below. The idea or method of using TWO lines doesn't appeal to me (I can that a trolley anyway, not a tram). I tried it, once. The issue of getting the two lines tensioned equally was enough to convince me not to bother with it.

I've used everything from stainless steel aircraft cable to EHS to Phillystran to rope for the tram line. Each has their place; each can work equally well. I use rope most of the time, because I have plenty of it, and most of the loads have not required a super-tight line, making the inevitable sag from rope okay.

For heavy loads or big beams, 3/16-inch EHS is the way to go. I then typically use rope for the back guy on the mast.

Much has been written about the concept of a "tiller" installed on the beam itself; I usually credit K6NA for the concept. It's a simple piece of 2-foot aluminum angle, bolted to the boom as close to the center of gravity as possible. The angle of attach on this piece is set slightly high—lifting the element tips upward. The tiller prevents the beam from yawing back and forth (it stays pointed AT the mast), while the angle helps guide the elements up and over the topmost guy wires (the ones that will always give you trouble). Whenever possible, I like to use the tiller; I feel it provides more control.

Much has also been written about mechanical methods of attaching the beam to the line. Some think that frames or other attachments should or must be used. I've always gone the simpler route of using only slings—climbing gear mostly, nothing else. The nylon loop sling and carabiners will allow you to quickly balance any load you encounter, especially if you can somehow lift and support it while you try various combinations and attachment points. Having the load balanced IS critical. Time spent in getting it right will pay off as it reaches the top of the tower, saving the climber some time, effort, and muscle power. Yes, Virginia, it also always pays to have some coax hooked to the beam on the very first lift, allowing you to check the SWR as you see how well it flies!

Which of course brings up the idea of what to do about "accessories" such beams use and require. I've long supported the idea of having a feedline running to the feedpoint that ends at the boom to mast plate. It solves several problems. One, perhaps you're using something like LDF-5-50 to feed the antenna, so you'll need a jumper anyway. Two, you need a rotation loop. Three, should you ever need or want to check the antenna (the driven element's probably out of reach, huh?) OR the feedline needs to be checked, this short run of flexible cable makes that an easy task (I like to use BuryFlex for this jumper myself). The main argument against it is always waterproofing, but I am convinced I solved that issue long ago. Being able to insert an SWR meter or a dummy load right there is invaluable.

(This recently came to light on a new installation where nothing worked right—all brand new stuff, straight out of the box. It took a couple hours, but I finally was able to determine that the switch installed in my client's antenna tuner was mis-labeled! He'd been using the wrong antenna position for five years. Putting a dummy load at the top of tower pointed out this simple error. Granted, it wasn't the first thing I did, but it solved the puzzle.)

And for those who complain about the extended time rigging for a successful tram takes, I can only say it's worth the wait. Having spent several hours rigging stuff, it's often anticlimatic (to say the least) to haul a big Yagi in to place within literal minutes.

Mentioning Longfellow's oft-mis-quoted line does little to assuage the client that they've gotten their full measure of value from the process. I suggest they're getting a bargain, benefiting from 20 years of fooling with ropes and slings.

Skywarn Information

from Howard W3CMH

As we enter the Hurricane season, you should use this system if you are traveling and not in a familiar area to do your reporting.

NATIONAL SEVERE WEATHER REPORTING HOTLINE
877-633-6772

The National Weather Service encourages everyone to report severe weather.

TO REPORT SEVERE WEATHER, you need to know either your,

Latitude Longitude by Degrees and Minutes
or Zip Code

If either of these two items are not available then you must leave a very detailed voice message as to your location at the end of the call such as nearest:

City, County, & State
Nearest Cross Streets
Land Marks Highway Mile Markers Etc....

SEVERE WEATHER REPORTING BASIC GUIDE LINES

1: TORNADO: A violently rotating column of air in contact with the ground and extending from the base of a thunderstorm.
2: FUNNEL CLOUD: Violently rotating column of air that is not in contact with the ground.
3: HAIL: Penny sized hail or larger.
4: DAMAGING WINDS: Trees/power lines knocked down, damage to homes, etc. If you have an anemometer, report any sustained winds over 45 or gusts over 58 mph. (Note: sustained winds are a one minute average.)
4a: High Winds: Wind gusts in excess of 58 mph. (Large Limbs or Trees Down Wide Spread Damage)
5: Flash flooding.
6: Weather Related Damage to structures, buildings, barns, or cars and trees.
7: SNOW: One inch accumulation or more in three hours. 4 inches in 12 hours or less.
8: FREEZING PRECIPITATION: Any accumulation of sleet or freezing rain/drizzle.
9: POOR VISIBILITY: Reduced visibility adversely impacting transportation.
Less than one-half miles for BLOWING DUST and VOLCANIC ASH.
Less than 1/4 mile for DENSE FOG and BLOWING SNOW.

When Prompted to leave a Voice Message:
Be as descriptive as possible, rainfall amounts and any damage or weather occurrence you feel is important to report.

Collecting History

from Glenn K3SWZ

I am sure many of us remember the old famous FT-243 crystals we used as a Novice or on the 6 and 2 Meter bands in rigs of the 50's, 60's and 70's. They were the Phonelic cases that were held together with three screws and generally had metal nameplate.

Having spent my entire working career working around and with quartz crystals, I was always fascinated by the unique history of this device. An old timer in the business told me that during WW II, there were about 150 companies cranking out crystals for the war effort and many of them were FT-243 types.

I decided to set out on a mission to see just how many different manufactures I could scrounge up at hamfests, etc. I had a few "scouts" helping me also…

After 20 years or so of looking in junk boxes and carrying my list around at hamfests, I have 109 different companies represented in my collection! There must have been some truth to that old timers story. All but a very few of these companies are gone and those that remain, probably have no one on their staff who even remembers an FT-243, unless he is an older ham!!

What is the collection worth? Probably nothing, except the sentimental value to someone who may want to preserve a bit of history as I have done.

Reminisces of an Apartment Operator

from Gene, W3ZZ

Back in the late 60's I lived in a high rise apartment in Rockville on the 7th floor. My apartment had a balcony held up by large steel girders [makes a great ground] and facing a wooded area across from a parking lot. I originally built a quarter wave sloper for 80 meters from #26 formvar coated magnet wire, hanging it from a 12 foot fishing pole mounted to a plate affixed to the balcony railing and then falling down vertically toward the ground. I realized that I could have a permanent installation by eliminating the fish pole, mounting the wire at the railing, putting an insulator on the end of the wire [I used a rugged button] and then dragging strong fishing line attached to the other end of the button out to that row of trees, yielding an essentially invisible antenna.

One day, PVRC member Tom Gallagher, N6RA/W3DPJ, who had moved to San Francisco was staying with me on a trip back East. I asked him if he would be willing to help me make a permanent installation of my quarter wave sloper. He readily agreed. I did notice that he was wearing a Captain America costume complete with cape but in those days such attire was not all that unusual. [Tom says that he remembers this but not why he was wearing the Captain America suit—given what was going on during those years it just seemed like a reasonable thing to do].

We waited almost until dusk so that the antenna would really be invisible and Tom went outside to stand on the sidewalk in front of my window. I proceeded to toss the wire over the side of my balcony. I could see Tom look for it and then shaking his head and signaling with his thumbs up - pull up the wire. So I pulled on the wire but it was clearly stuck on something. Tom shook his head "No" and signaled again to pull up the wire. This time I gave it a sharp jerk and I was rewarded with some loud thumping noises. Now Tom was getting agitated and shaking his head back and forth "No" and again signaling to pull up the wire. I gave it another jerk. This time it moved a little bit more - Tom was getting even more agitated and signaling wildly to pull up the wire.

I gave it a final huge jerk and was reward with a series of thumps and the wire came loose so I could wind it up. I looked down and Tom was running rapidly away from the building with his Captain America Cape streaming behind him.

Five minutes later he was back in the apartment but laughing so hard it took him a few minutes before he could speak coherently. Apparently, a gust of wind had caught the wire and blown it into a first floor balcony below me and tangled it in a lawn chair. The first two times I yanked the chair rose up just a little bit and dropped back on the concrete floor producing a small noise that I could barely hear. The next time the chair rose about a foot in the air and then came down with a loud crashing noise. The noise attracted the attention of the occupants of that first floor apartment.

Think about what they saw. They looked out onto their balcony only to see one of their lawn chairs now rise three feet in the air, shake violently as I attempted to loosen the antenna wire caught around it, and then come crashing to the floor as the wire broke and I reeled it in.

By the time they reached their balcony, all they could see was someone in a Captain America costume running away from their balcony and their ostensibly demonically possessed chair.

What would you think? Eventually the next evening we got the wire down to the ground, attached to the button and stung across the parking lot to a tree where it remained for the next two years doing yeoman-like service on 80 meters until I moved to my present QTH.

So there is some excitement even in apartment antennas. And if you ever see Captain America standing [or running] in front of your house, you shouldn't be suspicious or surprised.

Photographs from the Dayton Hamvention

from Jim WX3B

You will recognize several PVRCers in this array of photographs by Paul, K9PG: KD4D, N3KS, WM3O, KE3Q and K4ZW were among the PVRCers spotted at the SMC event:

http://picasaweb.google.com/PaulK9PG/Dayton2008

VHF/UHF Contesting

from Jamie NS3T

This month brings the return of the ARRL June VHF QSO Party, where the PVRC is the defending champion in the Medium Club section of the ARRL Club Competition

Last year we had 35 logs submitted for 3.6 million points, as the club won that category for the third year in a row. Two-thirds of that score was posted by the Grid Pirates, as the K8GP group won the Multi-op title.

Hopefully conditions will be better this year than in 2007, as most of the top scores went way down from 2006 when there was good propagation on 6 meters.

The June contest is usually the best of the three ARRL events for 6 meter activity - and if things are really open, it doesn't take much of antenna or big power to make QSO's all around the country.

And as I always like to mention, even if you don't have a 6 meter antenna, you can always fire up your 80 meter vertical or dipole and get yourself on the air that as well.

The June ARRL contest runs from 1800z June 14 to 0300z June 16 (Sunday night local time.)

Also, if you are into mobile operation (even with high gas prices) the new Rover rules are in effect for all three of the ARRL VHF tests, with three separate categories, Rover, Limited Rover and Unlimited Rover.

The new Rover rules also permit Rovers to use APRS (Automatic Position Reporting System) but only multi-ops can access that rover APRS data directly or via the internet.

If you can't get on for the June VHF test, there's always the CQ WW VHF contest in July, which features just 6 and 2 meters.

See you on the bands!

Comments from Jeff, K1NSS, Author of the DASH! cartoons:

[Editor's note: I've received a lot of comments about K1NSS' "Dash!" cartoons and strips. I've mentioned it to Jeff, who sent me this response]

My pleasure! Some [Dashtoons] are, uh, more "accessible" than others for sure. Feedback is rare and always welcome. "More of this!" "Less of that!" We can take it, hi!

Obviously, I don't do a lot of standard gag cartoons, but I take whacks at it in my way time to time. Not to dismiss old school styles at all. Any style is hard to do well and Dash! is, to put it facetiously, an evolving paradigm.

Generally, I'm trying to get into the appeals and emotions of our funny old hobby and how they sustain through our lives, so many years after Marconi, like echoes of his invention's Big Bang. Making seriously funny stuff is tricky, but I love to try just like I love to draw KWM2s and 807s and ragchew on 160CW. Guy's gotta do, etc.

Keep 'em coming? Be careful what you wish for OM, no encouragement goes unpunished. Once again, we're honored to appear in your newsletter.

"The Bank Job" *from Dick, WN3R*

The new movie, THE BANK JOB *[available from NetFlix]*, is very entertaining with lots of twists and turns. Ham Radio is an important part of the movie and with the setting being the early 70's, both the CB walkie talkies and the Yaesu Radio are proper period pieces.

However, one does have to wonder why the radio operator was eavesdropping on 27 MHz. With the setting in England, was the use of CB radios even legal there?

Well, if you're breaking into a bank, why worry about legal radio use anyway?

Converting Handwritten logs to a Computer *from Barry, K4CZ*

If you are trying to convert a handwritten log to a computer, the free Fast Log Entry (FLE) software by DF3CB may be helpful.

Fast Log Entry (FLE) is a freeware program that creates ADIF files from manually entered QSO records. This is useful if you couldn't take a logging computer on your DXpedition etc.

Fast Log Entry consists of two main panels - a Text Editor with Syntax Highlighting and a QSO Data Grid. The grid shows the generated QSO records and they can be saved as ADIF file. The idea was to make entering QSO data as easy and fast as possible. The principle is that only that data is entered that has changed from one QSO to the next.

For more info and a copy of the program, go to http://www.df3cb.com/fle.html.

Cable Clamps *from Don, K4ZA*

This is, IMO, one area where it pays to buy quality. That is, REAL "Crosby Clips" from the Crosby Company. They are easily identified by the clip being painted bright RED.

If you take the Chinese imports & some Crosbys, laying them side-by-side, both loosely assembled & snugged tightly together (over some EHS), you will quickly see that the Crosbys will not distort or twist the cable as much, et cetera. There are made to closer tolerances, apparently. Their holes are better aligned & the saddles are better fits, too. They will also not rust as quickly as the imports. I always coat the imports (when I find myself using them) with a solid coat of Red Rustoleum.

All this is a moot point, though, because builders "in the know" are using Preformed Line Products Guy Grips in their tower work!

I realize, when you're using Stainless Aircraft cable from FarmTek or TEK Supply, that cable clamps are the only recourse. But then I'd be using Stainless for those, as well. And SS cable for trusses & catenary lines, etc. not for guys....

A Very Large Tower Project

Gene, W3ZZ passes this along with the following introduction:

"We always think that only HFers build big stuff. Well take a look at this from Al, K3TKJ, "a rough description of my latest and biggest antenna project. Pictures are at http://www.dxham.com

50 Mhz., 235' Rotating Tower Array at the K3TKJ/W3DOG VHF Contest Station in Delaware.

"In 1986 I bought my first big tower, big to me at least, 100' of Rohn 45. With the help of friends and an antenna party I got it and some HF antennas up and working. As I would look at that tower I had a dream of making the entire tower rotate. I did not know how to do that nor had I ever heard of one. Around 1989 I installed the second 100' Rohn 45 tower, but in the back of my mind the possibility of a rotating tower was always there.

This is how this project was born.

So now it's 2007 and others with my dream have built rotating towers and there are companies where the technology and hardware is available. After dreaming, scheming and talking about a big rotating tower for years I knew it had to be done. I gently floated the idea by my wife and best friend Denise and she was not opposed to me giving it a go. I now started in earnest assembling the remaining components needed.

The two original 100' Rohn 45 towers were now down and stored since my relocation to Delaware in 1993. I had a 5000' roll if ¼" EHS guy wire. I had recently purchased a lot of tower parts at a NASA auction and I added this to my stash of hardware.

(Continued on page 10)

SpotBot!! SpotBot!! SpotBot!!
SpotBot!! SpotBot!! SpotBot!!

Packet pileups got you down? Tired of the large number of stations whose call sign is apparently “TU” or “TUQRZ”? Sick of all of the packet cheats and associated whining about packet cheats? Disgusted by the widespread proliferation of 'code copy' software? Longing for the days of paper and pencil? Well, ***PigPharm Industries*** has just the ticket.

SpotBot!! SpotBot!! SpotBot!!
SpotBot!! SpotBot!! SpotBot!!

Features:

SpotBot!! - is completely automated!

SpotBot!! - will connect to packet clusters randomly via anonymous TCPIP!

SpotBot!! - has unique 'clone' feature, by which **SpotBot!!** can propagate itself via third party “worm” and “trojan horse” technology! Soon, all of your friends will be running **SpotBot!!**, whether they want to or not! They won’t be your friends for long!

SpotBot!! - can receive spots from the cluster, and re spot them on incorrect frequencies!

SpotBot!! - will interface with CW Skimmer, and repost juicy DX spots to frequencies being run by other “TU” stations!

SpotBot!! - will re-post valid spots with random variations and transpositions of the callsign! Also generates spots for random rare DX, using callsigns in the Supercheck Partial database!

SpotBot!! – can control multiple rigs simultaneously using the USB interface, limited only by the number of available ports and CPU considerations!

SpotBot!! – has unique **“PirateMode”,** allowing the generation of multiple bogus stations, and mimicking actual QSO’s to better lure in the unsuspecting packet users!

SpotBot!! - will render packet irrelevant, giving advantage to stations whose radios have tuning knobs!

SpotBot!! SpotBot!! SpotBot!!
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Designed especially for PigPharm Industries by avid contester and programmer GR8HOG, **SpotBot!!** is sure to bring new strategeries and emphasize new skills in contesting. If you don't have a problem with being a first adopter of brand new technology, and feel that the Sweepstakes “Highly Motivated Operator” strategery is an ethical interpretation of the rules, then **SpotBot!!** is ***FOR YOU***!!

SpotBot!! SpotBot!! SpotBot!!
SpotBot!! SpotBot!! SpotBot!!

Now available through PigPharm Industries! Get **SpotBot!!** now, just in time for the Poisson d'Avrille!

Note: SpotBot!! is available only through the Cayman Islands subsidiary of PigPharm Industries.

A Very Large Tower Project (continued from page 8)

Included in this auction purchase was 100' of Rohn 55.

In a perfect world I would have rather had Rohn 55 for the entire tower but cost was a factor and the 45 was at hand.

During a phone call with Richard, K0XG who you will learn more about later, he suggested that we use the 55 as far as it will go then transition to 45 for the remainder. Being the mechanical genius that he is, he made this seem trivial, and in the end it indeed was. OK where was I? I had on hand 200' Rohn 45, 100' Rohn 55, 5000' guy wire, all the hardware and the recommended Rohn anchors. I could put up a big tower but it would not yet rotate.

My property is large, but for the last 10 years all but 2 acres has been farmed by the adjacent land owner. My first task was to tell my neighbor that a tower was coming and I needed my land back. After numerous starts and stops the stake pounding was over and I had determined the location for the tower and the guy points. This was calculated to require 1.7 acres. I took that amount but actually the tower is not so intrusive that the rest of the property cannot be used for other things. (I think there is a fruit tree orchard and some grape arbors in my future.)

The great thing about ham radio as a hobby is the support from friends and strangers alike. When I announced what I was going to attempt many offered help and suggestions. My good friend Ray KA3EKH located a set of guy anchors made by Rohn for a 500' tower. Weighing in at 700 pounds each this was quickly incorporated in the plan with the specified Rohn anchors looking so inadequate by comparison. Bob W9GE just happen to have a new K0XG rotating base and one guy ring that he was not going to use, a quick deal was made and I was on my way. I first met Richard K0XG in the flea market at the Dayton Hamvention. He was displaying his rotating hardware and we talked in great length about the how-to's and the why-to of rotating a tower. This scene repeated itself for the next 3 years. I went, we talked, and I came home with all his literature and dreamed for another year. When I called Richard 2 months before Dayton 2007 and placed an order I am sure he was relieved to finally see me stop talking and start acting. Richard promised delivery at Dayton and though I had planned not to attend, what better reason to go than to get all the rest of the hardware I needed. I met Richard the day before the hamfest loaded all the hardware and then enjoyed myself for the next 3 days, but still wanting to get home and get started.

After Dayton the reality started to set in regarding what I was trying to do. How tall a tower? What antennas? What configuration? I finally decided that I would attempt to vertically stack 8 M2 model 6M9KHW antennas, using their published data for vertical separation of 27'. I determined the lowest antenna would be at 30'.

The remainder would have to be at 57', 84', 111', 138', 165', 192' and 219'. This set the height of the tower and back I went to the site with a hammer, transit and more stakes trying to get the maximum guying percentage I could. Since the antennas will rotate under the guy wires I needed the guys to be as "flat" as possible leaving the tower going to the anchor. I tried to graph this and calculate what I needed but in the end it was good old high school geometry that found the answers I needed.

Formula to calculate clearance for rotating antennas under guy wires:

$tr = g(h-a) \div h$

where:

tr = allowable turning radius

g = distance from the tower base to the anchor of the guy wire you are trying to clear.

h = height on the tower where the guy wire you are trying to clear attaches.

a = antenna height

Example:

100 foot tower, two sets of guy wires anchored 80' from base. You are trying to clear the top guy, which is at the 100' level, for an antenna at 51 foot height.

$tr = 80 (100 - 51) \div 100$

tr = 39.2' allowable turning radius

My final configuration was single guy points 160' from the tower base.

And guy ring bearings at 56' 110' 164' and 218'. This, along with the antenna heights above gave me around 41' clearance from the guy wires.

In every project there comes a time to shoot the Engineer and just build it. I hit that time and in early June. I rented a backhoe and with the help of Bob WA3GGM the base and anchor holes were dug and the anchors were set in place and aligned. The holes were 5' x5' x5' and it was calculated to need 20 yards of concrete for the 4 holes. I dug the holes on Friday and on Monday morning I poured the concrete with the help of my Father-in-Law, Charles "Lefty" Wright.

It was decided that the best way to install the tower was by crane and 50-60' sections would be built as it would cause no strain on the tower to lift it that length. The rest of June and most of July was spent assembling the sections and adding the rotating guy rings as well as the brackets to hold the antenna booms on place. The antennas have overhead support lines and the brackets for that were put in place as well.

Many evenings were devoted to this with frequent trips to the hardware store for more bolts, u-bolts and associated hardware. I was shocked by the shear amount of hardware it takes to assemble all this. It was amusing to see all the borrowed saw horses under the tower - I think it took about 14 sets and I begged them from friends and relatives. My final act was to spray anything that looked like it might rust with "cold galvanizing". This is a zinc based paint that can be bought at hardware and home supply stores. It is recommended.

With the concrete and tower ready, I called the local crane company and contracted for a crane with a "hook height" of 235'. This is a big crane and it comes with a big cost. The permits for it to travel on the highway were several hundred dollars. And the final agreed upon price to set the tower was almost $4000. That is a lot of money but it is fast and it is safe to do it that way and safe was what I wanted

(Continued on page 11)

A Very Large Tower Project (continued from page 10)

most. Ironically the crane company is owned by a ham, but when a crane costs a million dollars, I guess there can be no discounts.

The climbing, section bolting, guy preparation, tensioning and making the tower plumb was contracted to a local tower company.

Everything was in place, and August 8, 2007 was the day. I watched the weather for thunderstorms and wind, the day was forecast to be perfect with one small exception it was going to be the hottest day in recent years. I bought 4 cases of water and some beer for the after tower celebration. I was nervous and I admit I did not sleep very well waiting for the big day. Several friends planned to be there to watch and help.

The day arrived and the crane and tower crew were on site at 7AM, it was already in the high 80's and the humidity was about 90%. Soon after N3SVB, NE3Y, WA3GGM, N3DB, N3NO, and W3DR arrived to help. Other than helping put the guy wire in position and carrying water we mostly stayed out of the way and let the professionals do what they do best. At 2PM the tower was topped out, tensioned and plumb. We drank 96 bottles of water! No one ever drank any beer; it was just too hot for that even. After a quick pickup of tools I invited the tower crew and all my helpers to the local pizza place for lunch. I took a slow drive back home very happy with myself and the days events, just as I rounded the corner about ½ mile from home I saw it from a distance the first time. I remember exclaiming "holy s***". It was impressive standing there, even without antennas. My other towers look small by comparison now.

The next phase of the project has now begun. Trenching feed line and control cables to the tower. Building power dividers and phasing lines for 8 antennas. After I make some more progress I will continue with the story.

Foot Rests by W3TMZ

Save your legs with a foot rest from PVRC member W3TMZ.

Contact Jack directly at w3tmz@arrl.net.

The price is $29.50, ready to assemble.

Memories of Past PVRC Field Days

Thanks to K3ZO for the cards

POTOMAC VALLEY RADIO CLUB
A. R. R. L. FIELD DAY, 1951

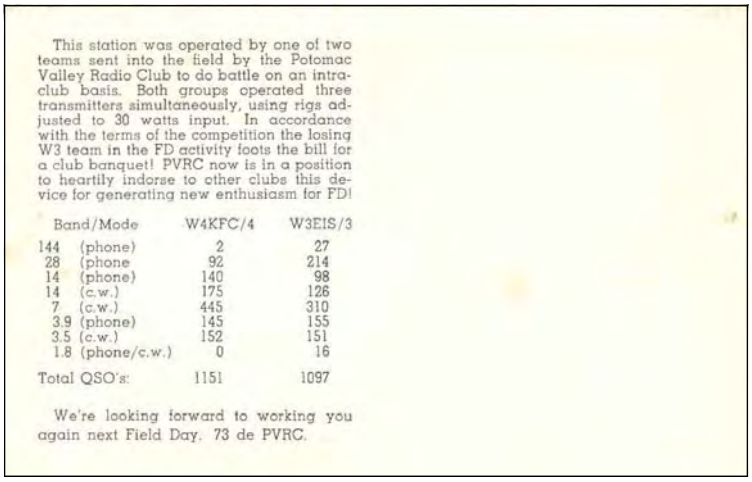
W3EIS\3

BELTSVILLE, MARYLAND
(QSL to Beltsville, Md.)

PVRC "W 3" TEAM

W3AEL Charles	W3KDP Ren
W3EIS Don	W3MCG Karl
W3FQB Monty	W3MFJ Bill
W3FQZ Art	W3MSK Ed
W3GRF Lenny	W3PWR John
W3JKO Charles	W3RJS John
	W3VES Phil

Radio ..... This confirms our Field Day QSO on June 23 24, 1951, on 144, 28, 14, 7, 3.9, 3.5, 1.8 mc. phone c. w.



This station was operated by one of two teams sent into the field by the Potomac Valley Radio Club to do battle on an intra-club basis. Both groups operated three transmitters simultaneously, using rigs adjusted to 30 watts input. In accordance with the terms of the competition the losing W3 team in the FD activity foots the bill for a club banquet! PVRC now is in a position to heartily indorse to other clubs this device for generating new enthusiasm for FD!

Band/Mode	W4KFC/4	W3EIS/3
144 (phone)	2	27
28 (phone	92	214
14 (phone)	140	98
14 (c.w.)	175	126
7 (c.w.)	445	310
3.9 (phone)	145	155
3.5 (c.w.)	152	151
1.8 (phone/c.w.)	0	16
Total QSO's:	1151	1097

We're looking forward to working you again next Field Day. 73 de PVRC.

POTOMAC VALLEY RADIO CLUB
A. R. R. L. FIELD DAY, 1951

W4KFC\4

LEESBURG, VIRGINIA
(QSL to Box 73, Annandale, Va.)

PVRC "W 4" TEAM

W1MV/4 Leo	W4LAP Bill
W4CC Jack	W4 LIM John
W4EMJ Ed	W4LRI Van
W4ESK Rush	W4NTZ Milt
W4IA Ev	W4NQV Roger I
W4KFC Vic	W4PNK Roger II
W4KFT Nort	W9ERU/4 Gene

Radio ..... This confirms our Field Day QSO on June 23 24, 1951, on 144, 28, 14, 7, 3.9, 3.5, 1.8 mc. phone c. w.

Welcome to our newest PVRC member,
Lee Bradshaw, K4UVA, of Richmond, VA

WHERE CAN YOU FIND PVRC MEMBERS?

The PVRC NW Region: Bud W3LL

Meetings are held on the third Tuesday of each month at the City Buffet, 1306 W. Patrick Street, Frederick, MD. (301) 360-9666. It's in a small shopping center. Most arrive about 6 PM for dinner and informal discussions. The meeting begins at 7:00 PM.

>From W. Patrick Street, turn up McCain Dr. (the Mountain View Diner is on the corner), then turn right into the shopping center, then turn left and search for a parking place. The City Buffet is tucked back in the left corner of the shopping center behind the Mountain View Diner. You can't see the City Buffet from W. Patrick Street.

The Annapolis Crew : Bob W9GE

Meetings are held on the 4th Wednesday of each month at West End Grill in Annapolis. We gather at about 5:30 PM and order dinner about 6. We break up usually before 8 PM. E-Mail W9GE to be put on the e-mail reminder list.

PVRCNC-East : Will, AA4NC.

Meets on the first Thursday of each month. Details are always available on the web site: http://www.pvrcnc.org

PVRC-NC/West: Tom N4IOZ

"The Winston-Salem Courteous Operators Club" (W4WS) meets on the fourth Monday of each month at 7:00 PM in the "Pure Chrome" establishment, 505 Deacon Blvd. Winston-Salem, NC 27105. It's now a biker bar (we came with the building), so feel free to roar in on your Harley. Info at http://www.w4ws.org

Gaithersburg Area: Jeff K3OQ

Several of us get together, much like the downtown lunch group, about every 4 to 6 weeks and visit various restaurants in the Gaithersburg area.

Central Virginia Contest Club: Ed NW4V

(updated 5/2008)

Meets the first Tuesday of the month at St. Martins Church, 9000 St. Martin Lane, Richmond VA, (between W. Broad St. and N. Parham Road). Our meeting begins at 7PM.

Over the Hill Bunch Bill W3AZ

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 Bill Leavitt, W3AZ 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.

If you have a group that meets regularly or occasionally, please send details and contact information to W3DQ for inclusion in the Newsletter!

PVRC Spotting Network

WR3L:	telnet://dxc.wr3l.net
W3LPL:	telnet://dxc.w3lpl.net
W4ML:	telnet://dxc.w4ml.net
K3SKE:	telnet://dxc.k3ske.net

N3ME:	telnet://dxc/n3me.net
WC3J:	telnet://dxc.wc4j.net
N2QT	telnet://n2qt.no-ip.com

W3LPL Glenwood MD	145.590 441.250
WR3L Baltimore MD	145.610 440.950
N3RR Rockville MD	145.510 441.325
W3TOM Accokeek MD	145.770
N4OHE Mt. Weather VA	145.710 446.025
NE3H Harrisburg PA	145.630
N4SR Woodbridge VA	145.630
N2QT Lynchburg, VA	144.97, 446.075

Information regarding the PVRC reflector can be found on the PVRC website: http://pvrc.org/pvrcfaq.htm

Note that this is simply the REFLECTOR FAQ pull down under main-page REFERENCE.

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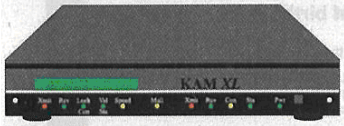

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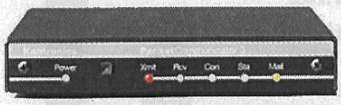

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