Potomac Valley Radio Club Newsletter
January 2008 Edition

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Submissions to pvrc_at_his.com

Congratulations to PVRC's 2007 CQ WPX SSB Winners:
Brian N3OC's team in Multi-1, Mark KD4D's team in Multi-2, and Jamie NS3T, 1st place USA 80m low power

From The President *by Ken K4ZW*

Welcome to the New Year! Before looking ahead to 2008, I want to take a moment to look back and thank Jim WX3B for his leadership the last two years. Managing a large, diverse group like ours presents some unique challenges. Sometimes the path of least resistance is to sweep things under the rug and let someone else deal with them at a later time. Thankfully, we had a leader who took these challenges head on and ultimately made PVRC a better club. His enthusiasm for the sport and PVRC is contagious. Well done OM!

Looking ahead to the New Year, I have a couple of thoughts I'd like to share. PVRC functions primarily to promote the sport of contesting, to engage in competitive contesting as a group, and as a social outlet for a bunch of crazy hams. The social aspect is no doubt alive and well! From a competitive standpoint, PVRC is well known throughout the contest community as one of the top tier clubs in the US. Our main focus the past couple of years has been to regain the top spot in ARRL Sweepstakes. It's clear from discussions on the reflector and other venues that there is no other contest that gets the collective club juices flowing like SS. We have some ground to make up after 2006 but I have absolutely no doubt in my mind that this group can regain the top spot again if we want it bad enough. At the same time, you will see me promote other contests where we have been competitive as a club. We should take the same sense of pride in winning those as we do with SS.

As for the aspect of contest promotion and Amateur Radio, for that matter, one only has to go to the PVRC web page to see our long involvement in the sport. Frank W3LPL gave a great presentation on the rich history of Continuing this is our biggest challenge. Looking in the rear view mirror, there are fewer people coming into the hobby than when most of us first became involved. Elimination of the code requirement appears to have reversed that trend somewhat. The point is we have to work to make sure our hobby and sport continues to thrive. Just as we marvel at the accomplishments of those before us, we have to ask who will be around after another sunspot cycle or two to appreciate and benefit from what we're doing today? I don't see any easy answers to this and it's going to take commitment on our part. At the same time this is without a doubt one of the greatest hobbies and we have a lot to offer so we're not faced with Mission Impossible. I'd like to hear from anyone who has thoughts on how we might accomplish this not just within PVRC, but also in conjunction with other clubs.

The upcoming months offer a busy contest schedule. Some of the bigger events include the CQWW 160, ARRL DX, NAQP, & North American Sprints. The latter two events are great skill building contests where you don't have to devote an entire weekend. Make sure you take time to turn on your radio, make some noise, and list your club affiliation as PVRC. Lets make this a good, make that great year!

73, Ken K4ZW

Editor's Musings *by Eric, W3DQ*

Some things change, while other things do not! Your editor waited until after knee surgery to put back the 160m antenna that had blown down in the November winds. Thanks to fellow PVRCers N3BM, W2CDO, NS3T and AH0AH, the antenna is back up and I hope (it works) and to be back on the air "real soon now." My maladies and antenna troubles were minimal compared to WN3R's ice storm damage, picture of which will be in the in the next issue/ 'm happy to announce that thanks to PVRC member Paul Heller, W3PH, we have a new and more efficient way to distribute this Newsletter. Paul's company, Heller

Internet Services, is providing the PVRC listserv and email facilities for the Newsletter. You'll see the Newsletter coming from a one-way email reflector pvrc_newsletter. Your comments, criticisms, corrections, kudos and newsletter submissions go to **pvrc_at_his.com** . Thanks, Paul!

As always, I encourage you to participate in one or more of the many, many contests and operating events this coming year (see the last page of this Newsletter for a long list of January and February events) -- at whatever level you're most comfortable. And too, don't forget to attend at least one of the PVRC chapter meetings that take place throughout the club territory. Finally, to mark your calendar for the Visalia International DX Convention in April (where W3DQ and former PVRC President K3NA will be presenters), the Dayton Hamvention in May, the W3LPL open house in June, and the Fowlfest in the fall of 2008.

Thanks to all who contributed to this month's Newsletter: K4ZA, N3HBX, NS3T, WV4V, W4KAZ, K3ZO, K3MZ, K4TMC, WX3B, and NK3R. And belated thanks to K4ZA for the W4KFC article in the last issue, which he transcribed by hand!

73, Eric, W3DQ

The Toolbox -- Revisiting Rope

by Don K4ZA

Back in 2004, most of this information appeared The Toolbox. But just last month, I found myself offering up a series of suggestions and comments to an out-of-state client who wanted to buy some ropes, necessary to his station rebuilding efforts.

If you're going to be doing tower and antenna work, you're going to need and be using rope. What's out there, anyway?

You'll find rope made from natural materials today (manila, sisal and cotton are the most common), along with lots of synthetics (nylon, Dacron, polypropylene, etc.). You'll find lots of sizes, prices, claims and comments, too, regarding each and every one of these. Obviously, your first priority should be deciding exactly what you want to DO with your rope, as uses should dictate what you buy. Size is the first factor, of course, and this includes not only length, but also diameter. Material selection should be next. Price probably shouldn't be a factor, as once you start searching, you may be stunned by what you find. Knowing "you get what you pay for," will certainly be true with rope, and thus, your budget for this item may require careful consideration.

Thinking about size is easy when speaking of length—you'll need to go up your tower and then back down, with a comfortable "handling" margin (say 25% to be sure). So, if you have a 100-foot tower, you'll need a 250-foot rope. Thinking about size is more difficult when speaking of diameter—you're into the arcane world of "working load" and "ultimate breaking strength," and almost no one understands these. If you plan on using your rope for lifting loads (tower sections, beams, etc.), then any rope having a working load between 100-300 lbs should handle almost anything a ham would commonly put up. Obviously, there are some nifty synthetic ropes out there of very small diameter strong enough to lift this load, but consider having (and using) something that will be comfortable in your grip. Smaller ropes hurt your hands more readily than larger ropes. Smaller lines (sometimes called cords) work great for "tag" lines, but once they're hauling a heavy load, they become difficult to hold. I'd say 3/8-inch line is the smallest size I would use for such work.

Thinking about material is also relatively easy, as the synthetic advantages outweigh the disadvantages. (All the natural fibers soak up water about as well as sponges do—they rot easily and must be stored properly at all times.) Nylon is the strongest rope. It stretches, but because of this, nylon can absorb sudden shock loads that would cause other fibers to break. It's extremely resistant to wear, and can easily out-last natural fiber ropes. It resist rotting, is unaffected by most common chemicals, and more importantly, it knots easily.

All rope is constructed from small fibers either twisted or braided together. This twist, called the *lay* of the rope, is usually a simple three-twist construction. Look in any hardware store in America; you'll see what I mean. But rope construction has evolved over the years, becoming more task-specific, and concerns with safety and good engineering practices from today's manufacturers provide several great choices. Braiding techniques, developed in WW-II, should lead your rope selection. Choices are hollow braided, double braid, and kernmantle ropes.

Hollow braid means the fibers are laid around a hollow core in "maypole" fashion. As such, this rope is subject to flattening under strain. Double braid ropes are constructed with a "cover" over a "core," often of the same material. Kernmantle ropes (*kern* means core; *mantle* means sheath) are usually made with an inner nylon core, covered with a braided sheath. The core provides the strength, while the sheath protects that core from abrasion. Double braided ropes will probably be the best overall value.

What about working load, or limits, or strength? Obviously, we now speaking of safety, so knowing the maximum safe working load for your rope can help keep you out of trouble. Never stress a rope (or line) anywhere near its breaking strength. As ropes age, or are spliced, stretched and subjected to sustained loads, or shock, exposed to ultraviolet light (in other words, *used*), they will also lose some of their strength. The rated breaking strength of seemingly-identical rope from different suppliers can vary by 10 percent or more, and different suppliers also specify a rope's safe working load at anything from 1/5 to as little as 1/15 of its breaking strength, so be sure to check on these specifications before

buying. This is another good argument for using rope of 3/8-inch or larger diameter—these ropes have a high-enough breaking strength that even conservative calculations of a safe working load provides some leeway when working with typical ham antennas.

Remembering that ultraviolet comment, storage requirements can be critical, just as knowing what you're working with can prevent potential tragedy. That's why I store all my ropes in Rubbermaid tubs (simply laying them in, dry, when finished—they always pull out easily), and why each tub is labeled with information concerning that particular rope. Large duffel-type bags work well, too. Always keep your ropes clean. Dirt can get into the fibers and seriously weaken them, as it grinds back and forth.

So, what should you do? What should you buy? Your decision will depend upon your ultimate use, the size of your tower, and how you intend to use that rope, of course. Obviously, having read this far, you'll realize you should probably have more than one rope, based on each of the previous points. For sheer strength, ease of use and working abilities, I'd recommend a braided nylon rope. I'd recommend a twisted poly cord or rope for tag line uses. I recommend buying the best you can, then caring for it properly—sometimes more easily said than done.

Using rope as a tram (to haul up beams, etc.) always generates considerable traffic on various reflectors, mostly all related to safety, the laws of physics, and the right and wrong way to do such work. My largest rope is a 5/8-inch double braided nylon; it's served me well, and the largest beam I've ever hauled with it was 200+ lb 20M Telrex. If you're unsure of your needs, or the requirements for strength or safety reasons, simply ask—there are legions of guys willing to help and supply the answers.

Buying rope can be expensive, especially good rope. With the increasing popularity of climbing, some interesting synthetic ropes can be found (be prepared, however, since all their dimensions are metric, as many ropes are made in Europe). Gear Express is one good source for climbing rope and hardware at considerable savings. (Mention your call, or what you intend to do with the rope; one of the owners is a ham.) Sterling Rope and Gear Shop and New River Nets are also good sources.

Some caveats: I wouldn't buy used rope; I wouldn't buy rope on eBay. I wouldn't borrow rope; I wouldn't suggest a club pool its resources to buy rope. I say this because the unknowns increase exponentially, and it's not worth the risk. Why put yourself, anyone who's helping you, and/or the equipment you're working with, in any danger? I consider my ropes an investment, and I have various sizes and diameters in my toolbox to allow me to work on towers up to 200 feet in height.

PVRC Audio Gems on the PVRC Website

Thanks to K4GKD, W3AU, W4BVV, W4KFC and W3PZW have been immortalized on the PVRC website http://pvrc.org/wav/cw_audio.html

and

W3AU http://pvrc.org/wav/W3AU1971.mp3
W4BVV http://pvrc.org/wav/W4BVV1971.mp3
W4KFC http://pvrc.org/wav/W4KFC1971.mp3
W3PZW http://pvrc.org/wav/W3PZW1971.mp3

These recording were made by K3ZO 36 years ago. The audio quality is poor but easy enough to make out the classic sounds- most of which have never made it to the internet. Considering that hey came from the other side of the world, this may be about as good as they get!!

When W4KFC stops his CQ, you can sense the pileup!

Comments from Fred, K3ZO:

At Frank W3LPL's picnic, a couple of fellows commented to me about the recordings of the CW of W4KFC, etc., which I had made in 1971 and which K4GKD has kindly forwarded to Howie so they could be added to the history files on the PVRC Web site.

Howie made a comment in the intro to the page that the recordings are not of the best quality but they do give an idea of the real fists of those recorded. So I thought I would add to the background of these recordings for your edification.

The recordings were made in Vinh Binh, in the South Viet Nam Delta where I was serving as "Provincial Psyops Advisor" to the South Vietnamese Government's provincial officials. I had shipped my Drake T4XB and R4B twins and a bunch of coax and wire, but at the time the recording was made we had not yet succeeded in getting permission for ham radio operation in Viet Nam.

We could move around the province without much difficulty in the daytime, but the Viet Cong ruled once the sun went down so at night we were confined for security reasons to an area comprising a few city blocks near the center of the town where our offices and billets were located. There wasn't a lot to do at night; you could get blitzed at the NCO bar, some nights you could watch a movie at our provincial HQ, or you could stay in your quarters and read Nero Wolfe novels and other paperbacks that previous denizens of the advisory team had left behind.

I chose to listen to the ham bands most evenings. The rented house which served as both my office and living quarters happened to be located between two towering trees about 200 feet apart so I was able to make up separate half-wave dipoles for 15, 20 and 40 meters which I connected end-to-end with each other with insulators separating one antenna from another, using separate feedlines for each band. The local electric authority provided the services of an ancient lineman who, armed

with a long pole with a hook on one end and steps tacked onto it, pulled himself up to the very top of each tree in turn and mounted my end-to-end dipole array between the tops of those two trees.

As you might imagine an office with "psyops" in its name had a few tape recorders around so, in the absence of permission to transmit, during major contests I actively searched for PVRC stations on the bands and, on hearing some, hit the record button. I thought the gang might like to hear how their signals were being heard on the other side of the world. At the time I had no idea that these recordings would serve as historical evidence of the dominance of the signals of some of PVRC's finest.

Initial Comparison of my Elecraft K3 to my Elecraft K2 *by Paul K3MZ*

I received the kit form of the 100W K3 on 27 Nov 07 (s/n #84). I had some troubles getting the firmware to load and those were resolved by using the only comm port on the computer. I also had some error messages that went away when I reseated the front panel and DSP boards. The K3 support folks were very helpful. The rig was operational on 13 Dec 07.

In addition to the stock filter, the K3 has the 6.0 KHz, 500 Hz, and 200 Hz filter. It also has the antenna tuner, the transverter interface and the general receive module.

I also have built the 100W version of the K2 #3135. I have been using the K2 since March of 2004. I like to play in contests, both SSB and CW. I have only wire antennas and they are low – only 10 meters up in trees. So I just S&P in the contests.

The first few times I used the rig, I could not tell much difference between the K2 and the K3. When the bands were not crowded, both radios were equally good for moderate or stronger signals. The K3 noise reduction and stereo receive did seem better to me for weak signals.

This past weekend, I used the K3 in the North America QSO Party CW contest. I had obligations and could operate for only 4.5 hours (78 QSOs) during daylight hours on the 10m, 15m, 20m and 40m bands. During this contest, I could tell that the K3 was superior to the K2.

- Ergonomics:

- having the filter controls on the front panel made a huge difference.
- rather than cycling through the filters I could adjust them more finely.
- holding one button quickly reset the filtering to a more normal setting.
- the main tuning knob is much more comfortable (this S&P operator uses it a lot).

- Selectivity:

- In the crowded bands the K3 could hear the station and the K2 would not.
- I could finely narrow the bandwidth of the filter – much too coarse in the K2.
- the shift allowed me to keep the pitch of the signal I wanted to hear.
- sometimes I had to do both – adjust the bandwidth and the shift.
- in one case there were two strong signals and a weak one. I initially heard what sounded like machine gun fire. When I narrowed the filter, and the tighter roofing filter kicked in, the machine gun sounds went away, and I was able to copy and work the weak signal. AGC is set to fast..
- There was some ringing when I selected the narrowest filters. However, I believe this has been corrected in the latest firmware.

- Miscellaneous:

- The CW decoding did not work in the crowded conditions. I only tried once or twice.
- The CW Tuning indicator worked. I found my ears did as good a job.
- The antenna tuner could only get a 1.3:1 match on 15m; the K2 (with KAT100) was able to get a better match on this same antenna/feedline.
- The transmit/receive switching seemed to be quicker in the K3. I had it set for QSK.
- The fan in the K3 is much quieter than the fan in K2.

I am still learning to use this radio and am looking forward to an SSB contest!

Elecraft K3 Build Experience

by Henry, K4TMC

First, this not going to be a review of the K3 performance. For that, I recommend the reviews on e-Ham.net and the articles in NCJ. In addition, there are individual comments and mini-reviews on the Elecraft reflector mixed with all of the complaints about delivery schedules.

For those considering the purchase of an Elecraft K3, I can recommend going the route of the kit version, thereby saving yourself $200+. I have not built anything like this for over 15 years, having acquired my Elecraft K2's already constructed by others. It is a 100% mechanical operation, with no need for a soldering iron, except for making up the Anderson Power Pole 12 VDC connectors for your power supply wires. If you are already using the Power Pole connectors for other gear, then you don't have to worry about soldering at all. Be sure to note the cautions about electrostatic discharge (ESD). I got a nice ESD mat and wrist strap kit from Radio Shack for $25.00 (good insurance). Also, avoid the tendency to want to move wires on the toroids to make them look prettier. They were adjusted this way at the factory for best performance - leave them alone!

The best advice is to read, re-read, and then follow the detailed assembly instructions. If something does not seem to fit well, then go back and read the instructions again! I had zero fit-up problems with any of the boards and panels. There are a lot of screws and different sizes.

Make sure you use the correct size and type for each step in the assembly. I dumped them all into a single bowl and selected the right one based on the assembly instructions. Others have separated them into different containers (egg cartons, etc.) based on size/type. The most difficult part of the assembly is actually handling the small screws and lockwashers. I did have a few extra screws and lockwashers left over, which apparently is normal.

I only had one important part missing in my kit – the PA Jumper Block. It is the only piece that is easily removed from the main RF board. It will prevent you from doing the transmitter calibrations/configurations, and will not allow the receiver to receive a signal. The reason it is removable, is that it is no longer needed if you install the 100 watt amp module. A few of us have had this experience. A quick phone call to Elecraft, and the part arrived within 4 days. A quick note about the Elecraft reflector. There is a wealth of knowledge, experience and camaraderie among the group. As soon as I mentioned on the reflector that a part was missing from my K3, I had Bill, W4ZV mailing me his PA Jumper Block so I would not have to wait for the part to arrive from Elecraft!

After assembly, you must spend a little time configuring all of the options that you have installed and doing some calibrations. No special tools are required, everything is performed internally via the factory-installed software and menu settings. You will need a decent VOM (my $4.95 Harbor Freight special worked fine) to do some resistance checks to make sure nothing has shorted during assembly. Here again, read and re-read the instructions. I initially did not do the filter setup correctly, and had a small problem. A quick note on the Elecraft reflector and I had the answer within an hour!

It took about 5-6 hours to perform the basic K3 assembly with maybe another hour to add the 100 watt amp module. I spread it out over several days working a little each night on the shack workbench. The assembly manual has been revised some since my effort – making the assembly even easier.

I would suggest that if you are considering getting the DVR option, get it with your initial order. It was not available at the time mine shipped, and is still not at the time of this writing. My discussions with the Elecraft DVR designer determined that the front panel has to be removed along with the control board to add the DVR board. I have been assured that this is easily done, however, it will increase the risk of scratches to the front panel due to control hardware removal and re-installation. Plus, the board connectors plugs/jacks are very tight and I do not look forward to prying them apart, risking damage to them or the boards. This also goes for the KXV-3 Transverter Interface/RX Ant I/O option which provides a separate receive antenna option on the rear panel – get it with the initial kit.

Addition receive filters are easily added to the main RF board. There are other options.

Also, installing the flat head screws that hold the exterior panels resulted in some of the paint under the heads popping off. Others have note the same problem. So, frequent removal and re-installation of the panels will result in more paint problems. A black Sharpie pen seems to help dull the shiny aluminum.

OK, I couldn't resist…The K3 receiver is every good as my K2's, and in the few instances where I felt the band conditions were challenging enough, I found the K3's selectivity features to be better. And, this was with only the basic 5-pole 2.7 KHz filter. From a transmitting perspective, the VOX circuit is the best I have every used (re TS830, TS850 & FT1000MP). Not a good test, but I was able to work a few down-in-the-noise stations during the 10M Contest just using a Cushcraft AR-10 vertical. So, the speech processor circuit seems to add the right amount of punch to the 100 watt signal.

Starting The New Year With A Big Change - HZ Bound *by Greg NK3R*

My Fellow PVRCers,

I have decided to send my career in a different direction, and have joined the Booz-Allen team for an assignment in HZ, specifically Riyadh. I will be wheels up from the USA soon, depending on how fast the Saudi visa process works. This is a minimum 1 year assignment, with the option to stay longer.

I will be taking my FT-990DC, but probably not my FT-1000MP, just in case an operating situation comes up. But from what I have heard, it isn't likely. The embassy isn't readily available for operating, and I've read that the club station is closed and HZ1AB has been reassigned. If anyone has additional information, it would be greatly appreciated. The link on ARRL's web site for Saudi licensing information is broken.

To Frank, obviously I won't be available for the ARRL contest in March, which will break my streak of either 13 or 14 consecutive years of being a part of the W3LPL team (can't remember if my first time was in '94 or '95). Likewise the CQWW DX in October, as that is in the middle of class time. I will have my first return break sometime this summer, then again over the holidays next winter.

Bernie, Fred, or any other PVRCer who has helpful suggestions as to what to take and the likelihood of operating in HZ, I will greatly appreciate your input. Thank you to all for some great operating experiences, and I'll see you when I get back.

Contest Station Aspirations

by John N3HBX

While the Poolesville contest station has been quite competitive, most operators using the facility have a list of things they would like to see improved. Recently noted has

been a lack of sensitivity in one of two FT1000 MPs, that, according to Yaesu, was introduced by the addition of the roofing filter. While an external preamp can be inserted (at the flick of a switch) there is some fear that this degrades the strong signal handling capabilities - even when 6 or 12 dB of receiver attenuation is switched in. On order is one Elecraft K-3 transceiver, and it may be that this finds a sufficient following that we replace the MPs with two of these transceivers. They do offer the advantage of supporting two identical receivers, which will be a plus on 40 and/or 80 meters when listening on two frequencies.

The other area of possible improvement would be to go to an entirely no-tune amplifier system. Currently, each station has one Alpha 87a amplifier and one Emtron DX 2sp amplifier. By replacing the Emtron amplifiers, say with the new Tokyo HL-2.5fx or the Dishtronix '"Prometheus" legal-limit, solid-state amplifiers one could have an instant-on, no-tune system. The advantage of the "Prometheus" is that it an be ordered with an SO2R feature, allowing it to serve two transceivers automatically, so while it is expensive (~ $10K) it does the work of two separate amplifiers. Moreover, the claim is made that it will put out the legal limit into a load presenting a VSWR as high as 2:1, so it should be possible to dispense also with antenna tuners.

A third opportunity for improvement would be to increase the number of contest logging programs available to users. Presently there are four, but this by no means exhausts the possibilities.

A final thing on my wish list would be an end to the legal battle, whose cost now is at $155k. The Maryland Court of Appeals has refused to reconsider its recent decision in my favor. This leaves the neighbors contemplating going to the U.S. Supreme Court, or fighting me at the Circuit Court where they have on file a "nuisance" suit that requires me to take the towers down and pay them $500k. Unfortunately, even were they to lose this they seem certain to appeal - so the prospect of an early end is pretty low.

Thoughts for Orion Owners

By Fred K3ZO

I just got back from Thailand so am reading all of this old discussion for the first time, but as an Orion owner, and since someone mentioned me in a post, I thought I ought to comment.

I have always preferred to use the filters between my ears rather than the ones that come with radios and never liked narrow filters because the ringing bothers me a lot. N3UM and W4AU convinced me to go with the Orion mainly because they said it "doesn't ring." Well in my opinion it does, but you can zero out the ringing by using a bandwidth of exactly 970 Hz, so when I'm on CW that's where my bandwidth is always set. Precisely because in a DX contest I had a loud W2 perch 670 Hz above me and used the Orion's very FB notch filter to notch him out, I now also use the notch filter set for 670 Hz tone and 300 Hz bandwidth full time while on CW, because in the Orion the notch filter appears to the user to act like another filter in series with the regular one. This combination has given me reception pleasure like I haven't had for years (maybe my Drake R4C with the Sherwood mods got close way back when).

Nevertheless taking Tom's main point, narrowing a filter mainly so you can squeeze up right close to another guy running on an adjacent channel is not a good reason to use a narrow filter. In my experience you always want to know what is going on around you as you run. Narrowing the filter beyond a certain point deprives you of the audio version of peripheral vision, and you lose if you cut yourself off from what's going on around you that way. Tom is right when he says that it will lower your rate even though you think you're really banging away.

With a rig like the Orion the tone you set your sidetone monitor to is also very important. I like to copy CW at 400 Hz, and I have been surprised when people have commented that 400 Hz is a much lower tone than they like to use. I believe it is established science that the lower the tone you use to copy, the better your ear is at separating out tones which differ in frequency very little from each other. I actually thought I was using a rather high choice of tone, as I recall some articles I read years ago, perhaps by professional ship-to-shore ops, advocating 200 or 300 Hz as their tones of choice.

I also believe in using a first-class pair of headphones. The arguments about "communications quality audio" vs "high fi audio" have never cut any mustard with me. In 60 years of using all kinds of different receivers, speakers and headphones, I am of the firm belief that the ear wants to extract as much information as it can get from any receiving setup, meaning that whatever is the final apparatus used to translate electrons into sound, it should be as good as scientifically practical in transmitting the widest range of sounds with as flat a response as possible. Therefore my German Sennheiser headset has pride of place in my shack.

As those who are familiar with my views on the subject of people who are quick to send "QRL" can attest however, this does not mean that I allow someone else to determine for me what my optimum receiving bandwidth should be. When I started contesting in 1952 nobody ever talked about level playing fields or how someone stole your frequency. It was just assumed that if things got too hot for you, you moved. That was part of the game. We have since shot ourselves in the foot by relegating our beginners to two meter FM where they got the idea that all channels everywhere should be as crystal clear as the ones they got started with at the beginning.

Back when men were men, a crowded band full of signals was a joy to behold, a challenge to be reckoned with and mastered. I know this discussion has been

mainly about CW, but the best example I can think of to illustrate this particular point was 75 meter phone on a winter night with the green tinge of aurora flickering on the northern horizon. Yes, in the "AM days" the band on such a night would be filled with heterodynes from one end to the other -- we called it "jingle bells" -- and there were about three signals in the whole band that you could actually copy, and yet the presence of all those heterodynes meant there were sure a hell of a lot of us in there trying.

Over the years we have been afforded the right to QSY at will within wide portions of spectrum of which most of our bands consist precisely because we have convinced our authorities that we, more efficiently than any other radio service, have demonstrated that we can share limited spectrum capably and get maximum production out of it. Be careful how much you wish the QRM would just go away, the FCC's answer might be to duplicate the 60 meter experience on all our other bands.

And if I sound like a nasty old codger, well, having just turned 70, I feel I have a right to act my age, and besides, if I don't comment now, I may never get another chance.

Speaking of Headphone and Headsets

In light of K3ZO's "I also believe in using a first-class pair of headphones" comment, check out Doug Grant K1DG's excellent step-by-step tutorial " Adding a boom mike to Bose Quiet Comfort (QC-1) noise-cancelling headphones.

http://www.freewebs.com/k1dg/boseheadphonemod.htm

While specific to this brand and model, Doug's presentation takes the fear out of hacking your own headphones. If you've modified your headphones, document it in words and pictures and send it along to your PVRC Newsletter Editor.

Common Mode Choke PowerPoints Updated

by Jim K9YC

Happy New Year to the PVRC!

I've done the Common Mode Choke presentation several times since the first time before PVRC, most recently to NCCC. I've expanded it significantly since you saw it, so perhaps you want to post a link to the expanded version.

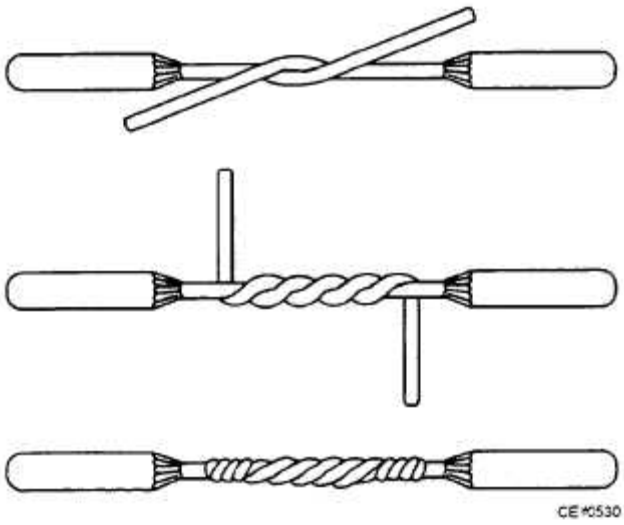
http://audiosystemsgroup.com/NCCC- CoaxChokesPPT.pdf

The Western Union Splice

In response to Rich NN3W and Dave K3ZJ's questions in the last Newsletter re: Budwig connectors, mention was made of the Western Union Splice.

"The Western Union splice is used when the connection must be strong enough to support long lengths of heavy, wire. In the past, this splice was used to repair telegraph wires. If the splice is to be taped, care should be taken to eliminate any sharp edges from the wire ends."

Your editor neglected to print a picture of the splice, so here it is:



2008 ARRL RTTY Round-Up Contest at K4GMH

The ARRL RTTY Round-Up Contest actually started earlier in the week. On Thursday the pre-contest practice was held with reasonable results. The same for the Friday session. It did turn up one problem and that was the 80 meter radio blanking out when using the NE Beverage and transmitting on 40 meters. An interesting point was when listening on the transmitting antenna, an inverted vee with the apex at 120 ft. and between the two 40 meter beams, reception was not affected by the 40 meters transmission. This data point did provide the answer to the no reception on the NE Beverage while transmitting on 40 meters.

By the start of the Contest, I had figured out how I was going to handle the blanking issue by just use the transmit ant. for reception and try to ignore the added noise.

A half hour before the Contest started the probable bands I would start on were checked. Twenty seemed good with nice activity, but 15 meters was mostly North/South path and not much of that with a few not very strong West Coast stations. This carried through as seen in the QSO Rate Graph. The bulk of the QSOs in the first couple of hours were on 20 meters.

Along about the start of the third hour, the reason why reception was possible with the 80 m inv. vee while transmitting on 40 meters dawned on me – the Beverages weren't going through the 80 meter band pass filter. With this enlightenment I took a hour break to rearranged the coax cables running between the IC 746, station controller, band pass filter selector and the amp.

When got back on decided to stake a claim on a 40 meters freq. This turned out to be a good idea as Saturday evening/night on 80 and 40 meters turned out to be a terrific. Some of the best conditions I have had in a

contest on these two bands. However, 20 meters still had a good rate for me to continue on the band and I didn't know if routing the Beverage antennas through the band pass filter would solve the blanking problem. (Yes, a TV is mounted right above the dual monitors so I was able to watch the Redskins game and continue to operate.)

When the 20 meters radio was switched to 80 meters the Beverages had full reception ability while transmitting on 40 meters! The early hour break to reroute the coax was worth it. Many of the European signals on 80 meters were as strong as USA East Coast stations. The West Coast stations started showing up in the log on 80 meters earlier than I normally can work them. The eight hours on 80/40 produced over 800 QSOs. After 12 hours of operating I decided to call it a day. 1293 QSOs were in the log putting me ahead of pace to reach the goal of 2000 QSOs in 24 hours. This excellent rate, >100 QSOs per hour, kept me in the chair for an hour longer than last year's first day effort.

Unfortunately, I had already taken an hour break which left just 5 hours to sleep and rest up for the final 12 hours. My original plan was to operate 12 hours and see how I was doing, take a break of 4 to 5 hours and save some of the "off time" for Sunday afternoon. Note: in the Round-Up you can only operate for 24 out of 30 hours and can only have two breaks for a total of six hours. Now a continuous 12 hours of SO2R operating had to take place which doesn't fit ability to stay in the chair that long.

Started out (0700 EST) doing S&P on 80 and 40 even though tried to get a run of some type going on 40 meters. Did copy couple of JAs on 40 also doing S&P but never could get one to answer any of my CQs, even with the beams pointed at Japan. Would have been nice to get a JA or even a VK multiplier.

From past experience knew 20 meters would soon open. Checked it towards the end of the first hour back and, sure enough, 20 meters was starting to open up in good shape. The 80 meter radio was moved to 20 while continued to run interspersed with S&P on 40 meters.

The my second hour back, 0800 EST, produced the only > 100 QSOs per hour rate the second day of the Contest. Didn't know that at the time as the activity on the bands were good. Murphy was lurking though.

In the third hour, 0900 EST, the 40 meter rate started to drop off so figured to give 15 a check. Surprise; the band was open to Europe with solid signals. However, started noticing a loud popping sound from time to time on the fifteen meter signal. Then a hissing sound started to show up on 20 meters when transmitting on 15 meters. The hissing noise got so bad couldn't transmit on 15 and hear anything on 20 meters. All of this ended shortly when noticed the SWR on 20 was over 9 to 1 and couldn't hear anything on the 20 meter radio even when not transmitting on 15 meters.

First thought was what did I inadvertently hit that caused the 20 meter antenna system to drop out. Things were tried, knobs turned and buttons pushed, but no joy. At that point had to make a decision to push on or try and find the problem. Figured if it was something on the ground, I could fix it. Took a dummy load and connected it to the 20-10 meter stack match's output for the antenna being used on 20 meters. SWR was normal back in the shack. I wasn't going to climb and try to fix anything on the tower even if I could reach it. By then figured to push on with just one high band set-up. Kept going on 15 as it was still producing good results and figured twenty would produce some good runs later.

The fun on 15 meters didn't last long. Forty was my only other choice for SO2R operation. The radio/amp combination normally used on 15 and 40 meters was switched to 20 meters and the radio/amp combination normally used on 20 and 80 meters was used on 40 meters. This arrangement was used for a good portion of the remainder of the second day.

The last hour was on 80/40 meters. By then I knew I would make the 2000 QSOs goal for the Contest. Score wise the last hour was productive as three mults were put in the log.

The raw score was better than last year's. Just hope the log checkers are kind to me this year.

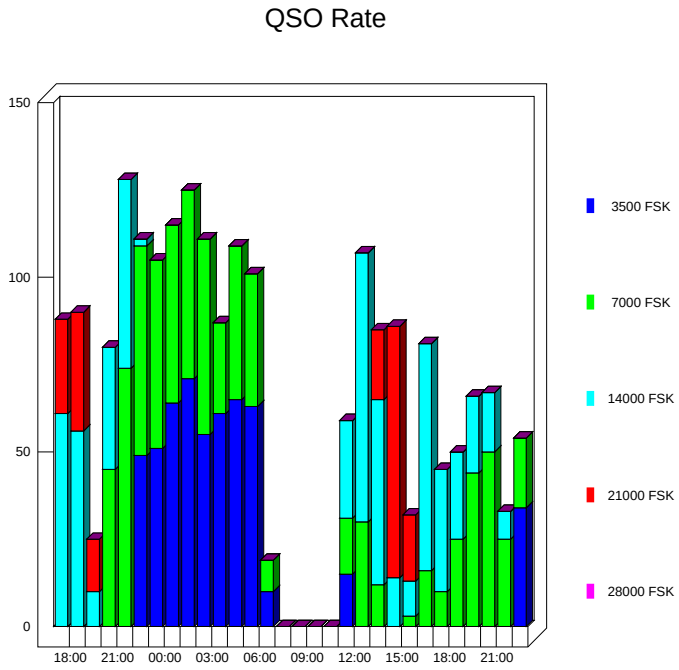
My station is a pair of modified IC 746s, a pair of home made GS-35B amps., a full set of homemade W3NQN band pass filters for each radio, and all band sets of stubs for both radios. A single computer is used for the SO2R operation and dual monitors for the needed display real estate. Software is Writelog and MMTTY. Antennas are: 80 meters inverted vee with the apex at 120 ft, a pair of 480 ft Beverages – one NE and the other W; 40 meters a pair of Force 12 EF240Xs, one at 145 ft and the other at 70 ft on a TIC Rotator; 20-10 meters are a pair of 4 element SteppIRs, one at 132 ft and the other at 100 ft fixed on Europe. A TH6DXX is at 40 ft fixed SE. All the ant. except the Beverages, are on a single 130 ft Rohn 45G tower.

The stubs, bandpass filters, and appropriate antenna selection is done automatically following the radios using a homemade station controller.

The 2008 Round-Up Writelog box score (less dupes) is:

Band	QSOs	States	Prov	DX
80	538	8	1	4
40	762	5	2	17
20	572	19	5	35
15	187	17	2	10
10	0	0	0	0
Total	2059	49	10	66

Score: 257,375 pts.



Graphically, the contest looked like this (graph generated by Writelog).

January VHF/UHF Contesting

by Jamie NS3T

Hopefully you've had some time to get your VHF/UHF gear ready as this weekend brought about the biggest contest of the winter with the January ARRL VHF Sweepstakes.

In 2007, the PVRC slipped into third place in the Medium category of the Club Competition, behind the North East Weak Signal Group and the Rochester VHF Group.

We had almost double the entries of the first and second place finishers, but it wasn't enough to provide us with victory.

One big change this year is that there are new rules governing rovers, an effort by the ARRL to address controversy with "grid-circling" by distinct packs of rovers.

The new rules set up three different categories for mobiles, with Rover, Limited Rover and Unlimited Rover. Their relative merits (or lack thereof) have prompted a lot of discussion on the vhf contesting reflector!

The contest began at 1900z on Saturday 19 January and as is still going on as your Editor puts this edition of the Newsletter to bed. I look forward to reading and hearing about your efforts!

BBG Will Close Morocco Station

Officials with the Broadcasting Board of Governors said broadcasts from the Morocco Transmitting Station will cease in March.

No programs will be affected; other facilities will pick up those services. The government expects to vacate the facility by the end of 2008 and return it to the Moroccan government. "The rising cost of operating the Morocco station prompted this decision," said Letitia King. chief of media relations for the International Broadcasting, Bureau. Officials expect to save $3 million to $4 million a year.

The facility includes 2.000 acres with 80.000 square feet of buildings and 10 high-power (500 kW) shortwave transmitters. It carries U.S. government broadcasts from Voice of America, Radio Free Europe/Radio Liberty and Radio Farda. There are 56 government employees, including four U.S. citizens and 52 local employees; a memo to staff stated that employees who lose their jobs will receive severance compensation.

U.S. international broadcasting in Morocco started in 1949 with the Tangier Relay Station. The current facility is 18 miles southwest of Tangier and began broadcasting in 1993.

Video Review

by Brian WV4V

Film productions of DXpeditions have become a big part of the Amateur Radio hobby. The Northern California DX Foundation (http:// www.ncdxf.org) now lists a collection of 133 different DXpedition videos, most of which are available for borrowing by NCDXF members, and clubs. Some of the DXpeditions on video date back to the 1970's. Recent video productions have become professional travelogues or nature films suitable for Animal Planet or the Travel Channel.

For the past decade many exotic DXpedition videos have been filmed by James Brooks, 9V1YC, and produced by his Singapore-based production company. Brooks developed and standardized the format of the modern-day video of DXpeditions which are always to remote, often uninhabited sites (AKA DXCC entities) and are about one hour in length. He was just announced as a winner of the recently announced Yasme Excellence Awards.

Most PVRC members have been entertained by at least one of Brooks' videos which are produced for a general ham and non-ham audience and give a minimum of technical information. Challenges of getting equipment to the departure point, marine or air transportation difficulties, off loading the equipment, and erecting tents and antennas are featured at the beginning of each video and give it a bit of drama and anticipation. A week's worth of round the clock QSO's on several bands at a time, however, may be compressed into 15 minutes or less of coverage. If Bob Allphin K4UEE is on the mission (and he usually is) you can bet that Brooks will have an interview with him during this segment. Brooks on the other hand will never be seen, as he always stays behind the camera. Once he accidentally filmed his own shadow and included it in the video; this created quite a buzz. Then there is the breaking down of camp, return to the

boat, and the long trip home by some very exhausted individuals as well as some bragging about the number of QSO's and how the rare DX location was lowered in the ranking of most needed entities.

The PVRC Newsletter editor lent me four of his Brooks videos to review at once. They all pretty much followed the above format, and as you will note below, for me they were more for entertainment than technical information.

ZL9CI Campbell Island, 1999, had the best nature photography including mountains, and amusing seals.

FO0AAA Clipperton Island, 2000, gave an excellent history of the islands built around a lighthouse and the early families who inhabited the islands during volatile periods of French and Mexican history. Birds and funny local crabs are also stars of this island the name of which has now become synonymous with exotic DXing.

VP8THU, Southern Thule, South Sandwich Islands, 2002, was the shortest of the four videos (45 minutes) because it was Part 1 and had a companion video, *VP8GEO, South Georgia,* Part 2, which I did not receive for viewing. Southern Thule island, featuring an indigenous penguin population, was the most remote location of the four, and was the most difficult on which to bring equipment, so a minimalist approach featuring low power equipment and easily erected antennas was followed, and thus emerged the designation of a Microlite DXpedition.

On the flip side, *A52A, Bhutan, 2000,* was to me the most technically useful. I has great coverage of how an operator handles a pileup using split frequency techniques. I learned something useful for my DXing activities by knowing how things are handled on the other side of the pileup. Bhutan was the only video where the team arrived by air and not by sea. Good coverage of the Bhuddist culture and architecture; one of the five Himalayan Bhuddist kingdoms. Now, who can name the capital of Bhutan without looking it up?

Operating In State QSO Parties

by Jeff N8II

Over the past year I have made the rounds in state and regional QSO parties. They are a good reliever for your contest fix and a great way to add counties to your USA-County Award total. It is fairly easy to win a state title in most of them. KITWE and WAMPUM are frequent participants, but favor QRL. Marty, WIMPY has operated as a mobile in quite a few parties in this region recently, thanks! However, if you think an overall win in any category might be easy, think again. The competition at the top is at a very high level. Ken, WOMB is the king of the hill. Paul NAP, Jerry KEYA, and John, NAME are right behind. They operate SO2R or intersperse ICQ's on phone with S&P on CW to accumulate their sometimes unbelievable scores. I have yet to win a USA high score in any of them.

Tips for success in state QSO parties are:

1) Concentrate on CW. Most mobiles tend to operate much more time on CW due to the mistaken belief that they are too weak to be heard on phone. Your multipliers will tend to higher on CW because most of the rare counties will only be active from mobiles. The mobiles will CQ/run on CW.
2) Time off = missed mults. As the mobiles roam around, they will probably spend no more than 5-15 minutes on any single band or mode. Missed opportunities abound. Take as little time off as you can and do it in small increments.
3) Calling CQ on CW in most QSO parties is not productive except in the major ones. If you do CQ on CW, don't keep it up for more than 3-5 minutes without going back to S&P.
4) Calling CQ on phone is usually good for about 3 to 4 times the QSO rate you might generate on CW. Do call CQ on phone when things get slow S&P. Make sure to use a frequency near the recommended activity frequencies. I had a good run on 75M for a half hour in the MiQP this past weekend running at over 1 Q per minute, but undoubtedly missed some counties on CW doing so.
5) Pile-ups on the mobiles can be huge on CW; try calling a bit off frequency or come back in a couple of minutes if you can get thru in say 3 tries.

Rules vary between parties. Use Contest Corral at http://www.arrl.org/contests and follow the link to the QSO party full rules listed. Some parties allow separate entries for phone, CW, and mixed. Many offer a score power multiplier which usually is x 1 for HP, x 2 for LP, and x 3 for QRP. Some offer awards for each power level; some go by total score only. Some offer separate phone, mixed, and CW awards. Mobiles usually compete against each other in state. The most competitive category is usually LP, but not always. Some such as PaQP and VaQP give bonus point for working a certain station. Many QSO parties have extensive plaque awards.

The granddaddy of all QSO parties is the CQP from CA the first weekend of Oct. The out of state winners usually work at least 800 stations and the CA winners over 1500. They offer a bottle of wine to the top 20 out of state scorers and plaques to 1st thru 3rd place in the HP and LP categories.

Other major QSO parties are the PaQP the 2nd weekend of Oct, the FQP (FL) the last weekend of April, the VaQP the 3rd weekend of March, and the TxQP the last weekend of September. The first running in 2006 of 7QP (the 7-land QSO Party) was a huge success the first weekend of May. The New England QSO Party is also pretty active the same weekend but starting Saturday evening thru 24Z Sunday. Also popular the first weekend of May is the CW county hunters contest which runs the entire weekend and is a great opportunity to add to county totals.

QSO parties that have plenty of activity and 200 or more Q's are possible include the NCQP, OkQP, GaQP, MiQP, OhQP, IlQP, WiQP, and Wa Salmon run (salmon prizes). There are many others with less activity.

Don't expect all of the operators to be contest grade, but the level of operating is much better than your average FD only type. Slowing sending speed on CW to match the sender helps. QRQ may be necessary for the top mobiles which can generate huge pile-ups when they cross into a new county.

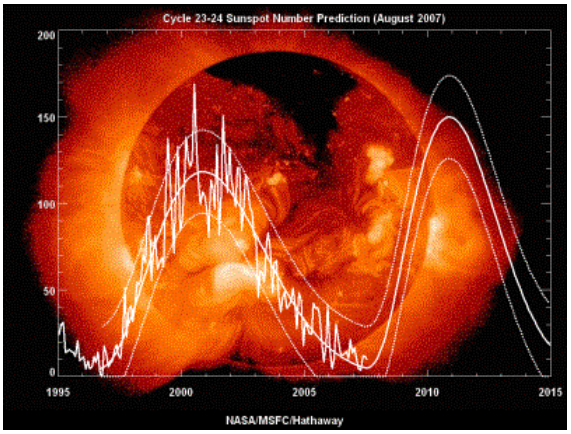
Give a state/regional QSO party a try, you might very well come back for more.

Sunspots -- The Check Is In The Mail

by Keith W4KAZ

Most folks can tell you how they came to develop an interest in amateur radio. My introduction came from several seemingly unrelated sources. One of those sources was a casual interest in astronomy and solar science. In my early teens I worked out an arrangement that allowed me access to checking out books from the library of the local small town college. That was a really big deal for a kid in a small town and I was lucky to have such a resource available. Besides the books, the library had a decent selection of non-circulating magazines. And there I discovered the sunspot/radio propagation connection.

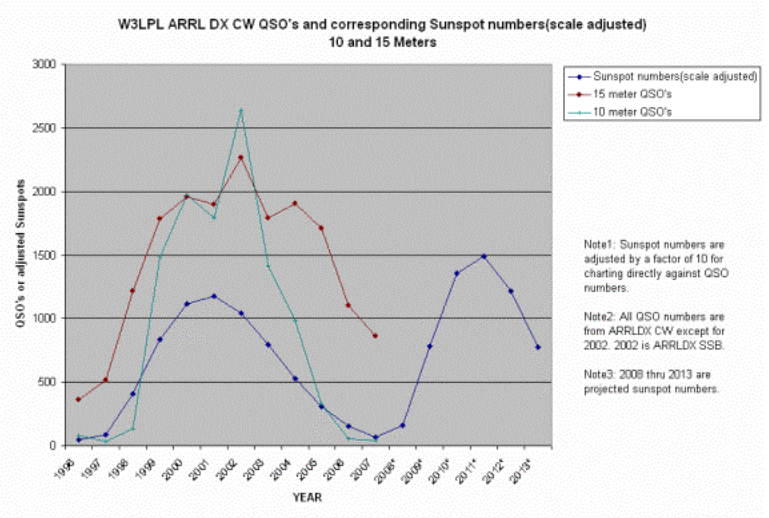
So, back to the present. Being curious about the current lack of sunspots, I looked over at the Solar Physics site of NASA's Marshal Space Flight center. Their most current prediction of the next sunspot cycle, cycle #24, has an interesting graphic. Their official projection is using the high end prediction of the several currently competing prediction theories. The caveat is that this prediction is based on theory which has not been proven. But it's the only game in town, right?



Coincidentally, the recently published QSK results for 2007 ARRL DX CW include a table showing the 10 meter QSO's decline. Their table only went back as far as the peak of the cycle. I was interested in the 10 and 15 meter trend over an entire sunspot cycle. The problem is that my own logs don't go back that far and they have too small a sample size. Also, the ARRL results published since 2000 do not include band breakdowns.

So to get a ball park idea of what might happen, I perused through some of the score summaries posted to the 3830 reflector archives at http://contesting.com. W3LPL has posted scores there regularly over the last decade, and I think we'd all agree that 'LPL certainly has a large enough number of QSO's logged that we can see what is going on.

I understand that this is not going to be news to most of the folks who have been operating and/or contesting for decades, but for the few who may be new to the game the following graph may be of interest. I've been told to expect propagation to improve more rapidly than it declined. But the picture really pounds that lesson home.



Note: The 2002 numbers are from the SSB contest, and probably account for the size of the spike, but 2002 was a very good CW contest for W3LPL also, with more QSO's logged(9000+) in total than in the SSB contest. Band breakdowns were not available to me for 2002 CW at the time of this writing. Also see the chart for all bands and the W3LPL raw QSO and adjusted sunspot data

The most interesting item from the sunspot forecast is of just how rapidly the next cycle is being predicted to ramp up. I found that of greater significance than the projection of the higher peak. If this predicted rate of increase becomes reality, we should plan to be hearing more 10 and 15 meter openings as early as the end of next year and early 2009. Generalizing further, the period from 2010-2013 is looking like the real thing. The chart also indicates that sunspot counts above 70 seem to be the sweet spot for anticipating reliable 10 meter openings. The first few years of the cycle seem to be very productive.

Now, I'll be the first to admit I'm no statistician, but the next twelve months might be a good time to get those high band antenna projects wrapped up. You'll need them to hear me on my all too low wire dipole.

Pee Power

Japanese company Aqua Power Systems has released onto the market (in Japan, at least) a new generation of 'Non-Pollution Power' AA and AAA batteries that can be recharged with water (or bodily fluids!) via a pipette. The capacity of their AA cells is approximately 500 mAh, making them broadly equivalent to zinc-carbon cells (alkaline cells can be up to 3000 mAh). These so-called NoPoPo `aqua batteries' can hold their charge for up to 10 years, but can only be re-charged 35 times before being disposed of. They could represent the beginning of a whole new generation of batteries that can be recharged anywhere without a power source, and next time I will feature more novel battery technologies.

http://www.weirdasianews.com/2007/09/09/pee-powered-batteries-on-sale-in-japan/
http://www.aps-j.jp/english/index.html

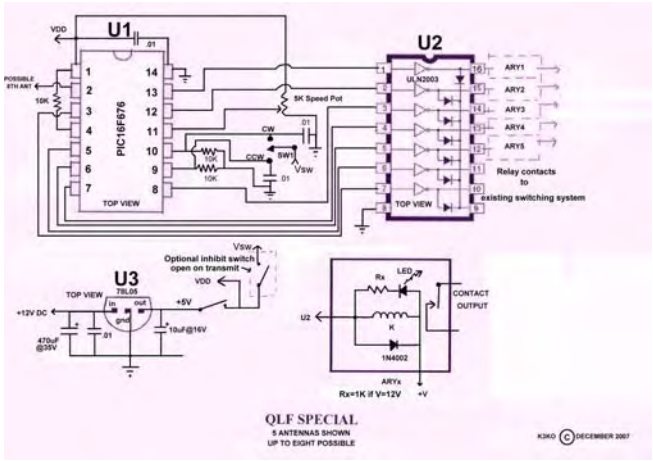
The QLF Special *Brian Alsop K3KO*

Receiving on the low bands is always better with receive antennas. Reaching up to switch to the right RX antenna in the middle of a run is an irritation. It drove me nuts in the recent 160M contest. The QLF special allows a foot to do it. The schematic shows one way. It permits cycling through the receive antennas in a circular fashion-- either clockwise or counter clockwise. If antennas are arranged in a compass rose fashion, one in effect rotates the receive antenna. The input for this can be two foot switches or in my case a giant homebrew iambic paddle with the foot placed in the middle. Foot left results in CCW rotation; foot right for CW rotation. Hold the paddle lever and the stepping repeats-- just like a keyer. A "speed" pot is included to adjust the stepping rate.

The schematic shown is for up to eight antennas. The circuit uses two IC's and a voltage regulator. Relay output is shown to allow switching just about any existing RX antenna circuitry. U1 is a programmable integrated circuit. This PIC is programmed to accept the input, count up or count down and supply various output signals. The outputs drive the relay driver chip U2. U2's output is a ground signal when active. Each driver within the IC can handle 40V @ up to 500 ma. You can use the signal directly or drive a relay as shown the ARY block. The +V for the relay can be any value up to 40 volts-- whatever you have.

The same circuit concept could be used for stacks or four squares. One must prevent hot switching of antennas. Breaking the line to SW1 on transmit is a way. It may be that case that several outputs might have to be on for certain stack positions. Likewise BCD binary output may be needed instead. Customizing is "a simple matter of reprogramming" the PIC. Ask. With some scrounging one might spend only $10 for this project. The "turn-off" for this project is programming the $2 PIC. I'll offer to do it or PVRC'ers for postage. Just let me know how many antennas you have. Photos of the completed project and iambic paddle are available from me -- alsopb@nc.rr.com. I've yet to use it in a contest. Playing around with it for DXing was an experience at first!

QLF OM!



A Presidential Thanks To All

by Jim WX3B

Dear PVRC Members;

As I fade into the sunset this month, I thought it was worth mentioning that I feel very fortunate to have been President of the Best Unlimited contesting club in the world for the past two years.

I truly appreciate the opportunity that you, our members gave me to lead the club, I appreciate your tolerance when I was making mistakes, and your courage to say something - in both good and bad situations.

I am very enthusiastic about the leadership team looking into 2008.

Your new President (K4ZW), and both Vice President (KD4D, NI1N) are "top ten" talent and are winners in both single-op and multi-op performances. The club is extremely fortunate to have this type of leadership!

We're also lucky to have Dave, WR3L continue to do his fine job managing the Treasury, and Anthony, WM3T doing the thankless job of maintaining club records and score keeping. He sure has a lot of work to do at the beginning of each contest season.

In addition, we have some world class Trustees and Chapter leaders, most of which have given me some VERY SOUND advise over the past two years.

I've often had a hearty pat on the back for a job well done, however if you look deeply within the club, I have been 'led' to many of my good decisions, which weren't necessarily my first thought!!! Many of the PVRC trustees are or have become good friends over the past two years!

Our Chapter leaders include:

W3LL - North West
W9GE - Annapolis
W6AXX, W3IKE - BWI Regional
NN3W, KD4D – Central
W4HZ, WU4G, NK4H - Central VA
WV4V, NN3W, W3DQ - Downtown DC lunch group
W3PP - Eastern Shore DEL-MAR-VA
N3XL - Laurel
K4QPL, NX9T - North Carolina East
W2DZO, KG4NEP - North Carolina West
W3AZ, AA4XU - Over the Hill Lunch Bunch
K3TZV - PA
NR4M, K7SV - Rappahannock
WR3Z - southern Maryland
KC9LC - southwest VA
N4FX, W4ZYT - Tidewater, VA group(s)

I truly appreciate W3LL's strong leadership and fantastic regular attendance at the North West meetings, as well has his position as "director of membership" making sure that prospective members get channeled into the right chapters.

Tom, NI1N will be retiring as awards director, however he will first be printing up some of those nice Top Gun mugs for our SS 2006 high achievers.

Howie, N4AF has become a great friend and has instantly responded to my many web site requests over the years.

Eric, W3DQ has done an outstanding job taking over our newsletter earlier this year. Unless you have done that job, it is easy to overlook the amount of time, energy and effort that goes into this work.

Many of you have asked what I plan to do with all my free time after PVRC retirement: You will notice two differences; I'll be putting in a bit more time at work (during work!) and you will see a resurgence in the Carroll County PVRC Group...

73, Jim Nitzberg WX3B

Contests Of Note In January and February, 2008 (start dates)

Check the ARRL Contesting Department and contest sponsor's website for details!

January

- 26 CQ WW 160-Meter Contest – CW
- 26 BARTG RTTY Sprint
- 26 REF French Contest - CW
- 26 UBA Contest - Phone

February

- 2 Minnesota QSO Party
- 2 Ten-Ten Winter Phone QSO Party
- 2 XE Int'l RTTY Contest
- 2 Delaware QSO Party
- 2 Vermont QSO Party
- 3 North American Sprint - CW
- 9 Asia-Pacific Sprint - CW
- 9 FISTS CW Winter Sprint
- 9 CQ WW WPX - RTTY
- 9 New Hampshire QSO Party
- 9 Louisana QSO Party
- 9 Northern New York QSO Party
- 9 British Columbia QSO Challenge
- 9 RSGB 1.8 MHz Contest - CW
- 9 Dutch PACC Contest
- 10 North American Sprint - Phone
- 16 ARRL DX Contest – CW
- 23 CQ WW 160 Meter - SSB
- 23 UBA Contest – CW
- 23 REF Contest - Phone
- 23 Mississippi QSO Party
- 23 North American QSO Party – RTTY
- 23 North Carolina QSO Party

A Bulk Order of Ferrites Coming Soon!

by Tom Carney K6EU tomc@carneysugai.com

At the request of several REDXA members, I'm going to put together another bulk order for #31 material ferrites. This will also give PVRC members a chance to participate in the order. This will almost certainly be my last order as my volume purchase agreement with Fair-Rite will expire in March.

This order will be limited to three or maybe four different part numbers. These are the most commonly requested parts.

We can obtain additional FT-240 toroids and RG-8 size clamp-ons at the same low price as the previous order. FT-240 toroids will be $3.35 and the RG-8 size clamp-ons are $3.18. I will also be ordering the "big clamp-on. These I expect to cost ~$12.25. And if there is interest, I also order the RG-8X size clamp-on. These will be ~$1.70. All prices include tax and shipping.

Even if you don't need ferrites now, I would encourage you to order them now if you expect to need them in the future. I've been following the prices of these part for a year now and they are going up dramatically.

Some distributors still have limited stock at the old price. Once they are gone the price jumps. For example, if we were to order the big-clamp-on from one of the major distributors, they would cost ~$16.60 with tax and shipping. The FT-240s would be ~$7.40.

If you are interested in ordering either of these parts, email me with your request. The parts will be shipped to W3DQ's QTH in Washington, DC. He may be able to bring them to a Central, Northwest or other DC-area regional meeting. Shipping parts can be dicey, as they are somewhat fragile and certainly heavy.

I plan on ordering these about the first of Feb.

In the meantime, read (or re-read) Jim Brown K9YC's excellent publications on RFI and the use of these RFI-suppressing devices:

Transmitting Chokes This is an expanded Power Point for presentations I've done to several ham clubs (PVRC, Pacificon, NCCC, and REDXA) that extends my research on ferrites to the design and application of greatly improved common mode transmitting chokes, also known as "current baluns." See also **RFI, Ferrites, and Common Mode Chokes For Hams** for the tutorial text that goes with this Power Point,.
http://www.audiosystemsgroup.com/NCCC-CoaxChokesPPT.pdf

Understanding and Eliminating RF Interference This is the latest version of the Power Point for presentations I've done to several ham clubs (NSRC, NCCC, PVRC, Pacificon) on RFI and ferrites.
http://www.audiosystemsgroup.com/RFIHamNCCC.pdf

RFI, Ferrites, and Common Mode Chokes For Hams (25 July 07) This tutorial is directed exclusively to RFI in ham radio applications. It includes an extended discussion of the use of common mode chokes as transmitting baluns, a short section on audio and computer interconnections in ham stations, and extensive measured data on ferrite chokes. This new document is at the advanced "first draft" stage. Comments are appreciated.
http://www.audiosystemsgroup.com/RFI-Ham.pdf

Measured Data For HF Ferrite Chokes This data was measured by a ham colleague using well calibrated HP instrumentation, and was published both in my AES Paper (see below) and in various tutorials. Here, all the plots are re-scaled to 1-100 MHz on the frequency axis and 10-1,000 ohms on the resistance/impedance axis to make it easier to compare one material to another and decide how to use these parts on the HF ham bands.
http://www.audiosystemsgroup.com/FerriteDataHF.pdf

Ferrite Data for NCCC Group Purchase This is the same data as presented above, but with the addition of manufacturer's data for four other parts that will be part of the group purchase. All of these parts may be used for more than one purpose. For example, all may used to suppress RFI, and all may be used to build transmitting "choke" baluns for coax. To the extent that wire will fit through them, they may be used for single or multi-turn chokes. These parts are **not** generally suitable for winding HF or VHF transformers because they are too "lossy."
http://www.audiosystemsgroup.com/FerriteData.pdf

NOTE FROM W3DQ: I do not know the exact date Tom will be placing this order. If you are interested, please contact him directly (as will I). For those who attended K9YC's presentation to the PVRC and/or have read his publications, you know that this is an opportunity not to be missed!

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 : Jim K4QPL***

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***

Meets the second Tuesday of the month at The Henrico Doctors Hospital, Parham Campus, located at 7700 E. Parham Rd. Richmond VA. The Hospital is approximately one mile north of the Parham Rd. and Broad St. intersection. The meeting begins at 7 PM in the Hospital cafeteria located on the first floor.

- ***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, rogerergo(at)netzero.net 703-658-3991 for Virginia meetings; or Bill Leavitt, W3AZ (w3az at starpower.net) 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 (w3dq at arrl.net) or Brian WV4V (wv4v at arrl.net) 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
NE3H: telnet://ne3h.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	
NEST Woodbridge VA	145.630	
NAQP Lynchburg, VA	145.59, 144.97, 446.075	

Tony, N3ME recently setup a spotting network computer at his QTH in Delaware. The address is: telnet://dxc.n3me.net

Information regarding the PVRC reflector can be found at http://pvrc.org/pvrcfaq.htm Note that this is simply the REFLECTOR FAQ pull down under main-page REFERENCE).

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