



Potomac Valley Radio Club Newsletter

December 2004

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

PVRC welcomes new members George Talley KH6HHS, Leo Kusada KG4PWC and Jose Castillo N4BAA from Tidewater; Kyle Chavis WA4PGM, Bill Hodges KC0QA and Sejo Sudic KI4FDF from Central Virginia

ARRL 160-Meter Contest 2200Z, Dec 3 to 1600Z, Dec 5
ARRL 10-Meter Contest 0000Z, Dec 11 to 2400Z, Dec 12
PVRC Holiday Dinner. Dec 13, P.J. Skiddoos, Fairfax, VA
For contest rules and other info, go to <http://www.hornucopia.com/contestcal/contestcal.html>

Editor's Note

By Pete Smith, N4ZR

This issue includes one experiment, an unusually long and detailed account by K4ZW of his successful strategy during CQWW SSB. I find this sort of article fascinating, both to see what Ken did and to understand how he reviews his log after the contest to learn from it. You may not agree, and I would welcome comments. Also included is an original technical article by K4GMH, K3ZO's critique of his new Orion, and an excellent Toolbox by K4ZA. Happy holidays and best wishes for 2005!

From the President

By Jack Hammett, K4VV

The PVRC Holiday Dinner is scheduled for Monday, December 13, at P. J. Skiddoos, at 9906 Lee Highway, in Fairfax, VA, 703-591-4516, located about 3.6 miles outside the Beltway on Route 50. **[Note this change from the Squire Rockwell Restaurant in Annandale, VA because 68 signups on December 1 exceeded capacity.]** Our meeting room accommodates 90+. Reservations are required. Menu choices are Chicken Breast Teriyaki with Rice and Vegetable Medley for \$22.98, Broiled Salmon with Oven Brown Potatoes for \$25.54, or Filet Mignon with Baked Potato for \$28.10. Prices include tax and gratuity. Meals include salad, bread and butter, tea or coffee, and Chocolate Mousse desert are included. The highlights of our evening will be Bob Cox, K3EST, our speaker, and the presentation of Awards. Adult beverages will be available. The choice of location was a compromise among important factors including affordable pricing, location near the Beltway, food quality and meeting facilities. **Please email me (k4vv@aol.com) for a reservation and listing your menu choice.** If you have already signed up, please email me your confirmation and menu choice. Payment is by cash or check written to PVRC to Dave-WR3L at the dinner. No-show will require payment. Please notify me if you reserve but can't attend so that someone else may have your chair. Our dining room with cash bar will be ready by 5:45 PM. Dinner will be served during 6:45 to 7PM and we start the program about 7:45, finishing about 9:15 or so.

We had a very interesting Central meeting with 18 participants in Temple Hills, MD on November 8. Mike

Carr, WA1QAA, the Emergency Coordinator (SEC) for Maryland spoke about the potential role of contest stations and operators in supporting emergency communications in Maryland, DC, Virginia, and surrounding states of the extended National Capital Region. Mike worked with Tom Abernathy, W3TOM, in formulating the approach, which involves potential public service opportunities for PVRC contesters. We agreed to form a team of PVRC leaders to work with the ARES leaders to formulate an approach. Volunteers for our team are N3RR, N3OC, K4VV, W3DQ, K3ZO, K3RA, WR3L, K3TW, and KC3VO. Brian McGinness, N3OC, briefed the preparation and execution of the recent V26B adventure for CQWW SSB. Watch for posting of both Emergency Communications and V26B briefings on the PVRC Web Site. Refer to my minutes of the meeting in this newsletter for further detail.

The election of officer's action is in progress in the regions of PVRC, with results to be pulled together and action completed at the Holiday Dinner.

Many have shown interest in moving ahead to implement the Contesting College initiative. N3OC, WX3B, W0YR and others have shown interest in taking action soon. I am very supportive of this effort, and see it as a very valuable resource to encourage the enhancement of the skills of our members, to help us build the enthusiasm and PVRC spirit for competition, and to attract new members including young members into contesting. A serious event could happen soon if volunteer leadership and support are available.

The Central meeting on January 10, 2005 in Maryland will offer a presentation by the Amateur Radio Product Manager of Ten Tec, Scott Robins—W4PA, on the Orion. Thanks to Eric, W3DQ, who organized the event. Location is TBD.

A lively discussion of PVRC competitiveness has been going on among the officers and trustees recently, led by Howie N4AF, Pete N4ZR, and Rich KE3Q. The thrust is that it is central to our interest to emphasize selected contests that we have a strong opportunity to win, such as the 10m and 160m contests, WPX, IARU, Russian, and VHF contests. Also, we have a strong reason to emphasize Sweepstakes as a warm-up to the contest season and as the one set of contests for which almost every member has a capable station. SS seems to be a natural contest to emphasize to get some operating momentum going for each new season. Rich has suggested a 12-hour challenge within Sweepstakes to help build our participation. The idea seems to me to be a constructive method of growing activity while adding some incentive for everyone. Pete has graciously volunteered to administer the effort. Discussion is ongoing among the membership, mostly on the reflector. Get your thoughts in to N4AF, N4ZR, and KE3Q.

Carl Luetzelschwab, K9LA, Editor of the National Contest Journal (NCJ), sent me a letter recently asking for our support in increasing the subscriptions. It is important that we support the NCJ to help continue the improvements that are underway. Most of our active members are probably subscribers already. I would urge others to consider signing up for the good news of contesting. We are also urged to submit articles for publication in the NCJ. See the full text of Carl's letter in this Newsletter or on the PVRC Web Site.

A personal update follows. Life is good. I retired in April, and am as busy as ever with family and projects. The maintenance of our home and land is a challenge, and I have taken on the lead for the upkeep for the gravel road that serves the six families in our neighborhood. We are active in our church. Sharon's extensive family has grown to include nine grandchildren, two of them born in the recent 14 months. My two daughters have no children, but Laura, my first born (almost four decades ago), gave me the great news last week that a child is due in April! We have a lot of family action! My tower and antenna projects are moving forward, slowly but steady. Foundations for the four towers and cable runs are finished, and the restoration of towers is in progress.

Brian, N3OC, attended the funeral for Chuck Reville, K3FT, and we sent a PVRC contribution to the ARRL Spectrum Defense Fund in honor of Chuck.

Letter from K9LA

From: Carl Luetzelschwab, K9LA
Editor, The National Contest Journal

NCJ
The National Contest Journal

October 15, 2004

Subject: Increasing NCJ Subscriptions

www.ncjweb.com

For the past several months I've been actively pursuing activities to increase the NCJ subscription base. For example, N0AX's Contest Rate Sheet and YT6A's contest reflector carry NCJ news on a monthly basis, NCJ has been promoted on the UK contest reflector thanks to Dave G4BUO, The DX Magazine has run short ads for NCJ in the last several issues, and HQ continues to send sample NCJs to contest clubs for contest forums and meetings.

I'd like your help in promoting NCJ in your contest club. Specifically I'd like you to encourage those members not subscribed to NCJ to do so. Being the only national magazine devoted to our aspect of the hobby, it is important to continue NCJ's growth.

Tied to this is the question 'Where is NCJ headed?' Obviously the answer needs to address the changing environment due to the Internet. It's no secret that the lead time of NCJ has, for all intents and purposes, taken it out of the picture for discussions of 'issues of the day', which are so aptly handled on the cq-contest reflector (I have been thinking that perhaps NCJ could carry a summary of a thread once the comments have died down). It's also no secret that this same lead time makes it pretty much impossible to address time-critical contest news, which the Contest Rate Sheet does exceptionally well with its every-other-week schedule.

So where is NCJ headed? I have been trying to head NCJ toward more technical and general features that are relevant to contesters. It's kind of like turning the main thrust of NCJ into "the journal for operating and technical information for contesters." Of course we will still continue the NCJ-sponsored contest results and the regular columns. I see this as its purpose in the immediate future. Will NCJ ever be an on-line or e-mail publication? I see a way to do it, but that appears to be several years out in the future.

I also encourage your members to submit articles to NCJ. In addition to contest activity articles, I'd really like to see more small contest-related construction projects and more articles from the 'little pistols' of the contest community.

Thanks for your time.

Carl K9LA k9la@gte.net

The Toolbox **By Don Daso, K4ZA**

In keeping with last month's theme, a few words about adhesives this time. These seemingly simple compounds can be, of course, quite complex. Animal glues are still made today—using proteins found in animal hides. Bones, blood, along with other byproducts, are also used. But most modern glues and adhesives are synthetic. And they create bonds in one of two ways. Simple glues (think of white school glue or that yellow carpenter's glue you fixed your chair with) bond mechanically to objects, with the glue literally flowing in to the pores. If you're a woodworker, you know what a nightmare this can be, as the glue can seal pores adjacent to a joint, preventing a proper finish. Yet this type of bond can be quite effective—with glued joints achieving strengths near 4,000 PSI on high-density woods.

Other glues rely on specific adhesion bonding, meaning they react chemically with the objects they stick on

and to. Epoxy glue is one example. Certain materials require such adhesives, like plastics—which are literally welded together chemically.

Today's newer urethane glues are also interesting. They're actually activated by moisture. The newer polyurethane glues mechanically bond to masonry, glass, wood, metal, and many plastics. Once dry, urethane glues are highly water resistant; some are waterproof. They're probably the most versatile adhesives you will find. Buy only a small bottle, since as you use the glue, the bottle fills with air, and moisture in the air can react with the remaining glue, causing it to spoil.

Construction adhesives (usually in tubes) are formulated to bond poorly fitting materials. These glues can easily bridge gaps. They're generally not as strong as other adhesives, with a maximum strength around 600 PSI.

It's a well-worn phrase, but bears repeating: To achieve the best results when using glues or adhesives, always read the instructions! And follow them to the letter. Also remember, it's always best to test glues before using them. I know this will take extra time, but it's worth it. I've found the plastic lids from various food products to be perfect for mixing small batches of most of these adhesives. Here are some other glues and adhesives found in my toolbox.

Corona Dope

Originally designed to prevent arcing in TV high voltage circuits. This lacquer has excellent dielectric, arc and corona resisting properties and protects surfaces against moisture. Such protection is achieved with a quick drying, black lacquer insulating coating based on a cellulose resin. Temperature range: to 325 degrees F (163 degrees C). This lacquer is used to coat fly-back coils, transformers, and to improve the insulation and weather resistance properties of wires.

Q Dope

This is a solution of pure polystyrene in solvents. It dries fast and leaves a clear, protective coating on coils and transformers, with minimal effect on inductive values. It may also be used as cement for molded or fabricated items made of polystyrene.

UHU-Hart: "Airplane Glue"

This is the best-selling model airplane cement in Germany. It's very fast setting and glues ABS plastic (which can sometimes be hard to glue)! It's absolutely clear, ultra lightweight and very strong when dried.

Stabilit Express

You'll become addicted to it! As an adhesive, Stabilit Express will firmly adhere anything to anything. It's unsurpassed in joining things like nylon to fiberglass, or metal to plastic, or plastic to fiberglass. It is a two-part methyl-acrylic adhesive. The material sets in only 20 minutes; it's light-colored, and can be sanded and finished once set. The cured material has both compressive and tensile strength, and can be used as a structural element, in addition to bonding.

RTV GE #142

(RTV means "room temperature vulcanizing," but for hams, that GE part number is critical!) This is a non-acidic RTV silicone. Typical RTVs you encounter give off acetic gas as they cure (usually indicated on the label—they smell like vinegar while curing), meaning your hardware is sitting in acid, protected from the rain. I once tested some RG-213 with the normal hardware store stuff, and the braid was gone in a few days.

ScotchKote

"Scotchkote" Brand Electrical Coating is a fast drying sealant and bonding agent recommended for joints wrapped with plastic electrical tape. The product is supplied in a 15-oz. brush top can. It is compatible with "Scotch" Brand electrical tapes, fast drying and flexible when dry, comes with its own applicator, there's no waste if the container is resealed after use.

Scotchkote is intended for use as an outer seal on plastic tape applications which are subjected to excessive amounts of oil. It also improves the weather resistance and moisture resistance of the taped joint or splice. It is suitable for direct burial, direct water immersion or above ground applications.

Ultraviolet destroys it rather quickly, but for splices to be buried, it's invaluable.

Liquid electrical tape

I've recently started using this—mostly in black, although it comes in quite a few colors, and retails for about \$5.00 for a 6-oz. can. It dries in about 20 minutes and seems to be great for covering entire connectors.

What's in your toolbox?

CQWW SSB

By Ken Claerbout, K4ZW [For space reasons, presented in two installments, this month and next—Ed.]

I have to thank Fred K3ZO for persuading me to write about my Single Operator experience in the 2004 CQWW SSB Contest. I was somewhat reluctant at first. His argument was — with 7.7 million points as a single operator, you obviously did a lot of things right, and you need to share that with PVRC.

Prelude to WW SSB

Suffice it to say, no one expected the kind of conditions we were blessed with. I attended the W9DXCC convention in Chicago on September 18. One of the speakers was propagation expert & NCJ Editor Carl Luetzel-schwab K9LA. One of the things Carl covered was his prediction for CQWW SSB 2003 and why 10 meters was better than originally forecasted. He went on to predict that 10 meters would show some signs of life but that we would definitely notice the effects of being on the downside of cycle 23. Carl was not alone. K1AR's Contesting column in the November issue of CQ Magazine, which arrived prior to the SSB weekend, took a look at what it was like to operate in a solar minimum, 1995-style.

I was on a business trip prior to WW SSB. I returned home to find a bunch of e-mail on the PVRC reflector commenting about the fantastic conditions on 10 meters. Sure enough as the week progressed, the bands were hot but would it stay like that long enough for the contest to roll around? Last-minute forecasts by NW7US predicted above normal to high normal conditions with the flux around 120 to 125 for both days.

Several weeks before WW SSB, I had been struggling with a decision as to how I was going to operate. I was having problems turning my 20 & 40 meter antennas because branches from a nearby tree had grown enough over the summer that the reflector on the 20 meter yagi was getting hung up. Attempts to get a tree service out to trim things back were proving to be very difficult. Many of them had very busy schedules or they had crews on loan in Florida cleaning up after all of the hurricanes. I had thought of operating single band or maybe joining one of the multi operator groups.

Sometime while mulling over my operating dilemma, I decided to see if I could pull the top of the 20/40 meter tower away from the tree an inch or two, which might just be enough to free up rotation again. I loosened the turnbuckles on the side of the tower next to the tree but unfortunately, there was not enough space on the third turnbuckle to take up the slack away from the tree. A quick trip up to the garage to get a come-along and I was in business. The top 30' of the tower had a slight lean but not enough that I felt it would jeopardize structural integrity. Now back to the shack to see if that did the trick. Success! I could still tell it was hitting the tree but not enough that it prevented me from turning the stack.

With that problem resolved, I decided to proceed with a single op entry. In years past, I always take a day of vacation on Friday before a contest. I guess I wasn't as psyched up this year as I decided to go into work on Friday and maybe sneak out a little early so I could get home and catch a nap before 00Z. I didn't have a busy schedule at the office so that made doing so much easier. Despite my best efforts, I wasn't able to catch much

more than a 30 minute nap. I just don't sleep well when it's light outside.

The reason I mention all of the above is because it is a part of contesting. We all have busy work schedules and other external factors that influence our ability or desire to spend time in front of a radio when the weekend rolls around. Just keeping a competitive station on the air can be time consuming for some. Managing those factors is an important part of being successful.

Gentlemen start your engines

With my cooler full of snacks and beverages, I feel ready to go. I tune 10 and 15 meters between 2300 and 2330 and find some loud JA's. Wow, this is great, but I think to myself, I've seen this before and typically they disappear by the time 0000Z rolls around. I come across JD1BIA on Ogasawara in zone 27 at 2353Z on 10 meters. I work him and say I'll be back in 7 minutes. At this point, I decide I'm going to start the contest with a quick S&P of 10 meters. I want to grab whatever Pacific and Asian stations I can, just in case 10 goes in the tank later in the weekend.

In The Beginning: 0000 – 0400 GMT

JD1BIA goes into the log on 10 meters at 0000Z. He is followed by 3 more JA's, KH7X, and VK2KPP at 0006 before I decide it's time to split for 15 meters. I've always felt in order to be successful in contesting; you have to be aware of your station's strengths and weaknesses. The same applies to the operator. As I switch to 15, I have a sense that I'm probably going to generate a higher rate by S&P than if I try to run stations. At least I feel that's a good strategy for starting off. From 0009 to 0025 I grab 12 JA's, HL0O, VR2BG, VY1MB (zone 1), and XX9C. At this point signals are still pretty loud and I'm not exactly killing on rate (22 QSO's in 25 minutes). I realize I have 8 pretty good mults but I have a bit of a panicked feeling suddenly, that my competitors may have decided to just sit on 15 and run and as I result I'm already falling behind in QSO's. With that in mind, I decide to find a clear spot and CQ. It's important to remember that contests like CQWW are a marathon and while it's important to get off to a fast start, they are seldom won or lost in the first couple of hours.

I land on 21343 and proceed to generate a steady stream of JA's along with a few goodies who call in such as RW0CF (zone 19), VK9XD, PA0CYW/DU2, RW0UU (zone 18), and KL7IKV (zone 1). Just as important during this time, I'm able to get going on the second radio and scoop up some stuff on 20 meters. Most of it is run of the mill Europe but the more notables include OH0Z, OD5NJ, Z31GX, EA9LZ, D44TD, 5B/AJ2O, CQ9K (CT3), 4A1UN (Mexico & zone 6), ST2T, and 5U7B at 0121. My Asian run on 21343 has slowed down but those still calling are fairly loud so there appears to be some steam left in 15 meters. In the past when this has happened, I've found that moving around the band and calling CQ often times brings another layer of Asians that for some reason I don't generate if I stay put on one frequency. I decide to set up shop on 21414 and call CQ at 0110. I add another 9 QSO's in 5 minutes before deciding to try the bottom of the band 21258 which will be my last stop before leaving 15 meters for the evening. My last QSO is with JI7VNJ at 0125. At this point I have 155 QSO's, 39 country multipliers (all bands) and 24 zones (all bands).

This is probably a good point to touch on Single Op 2 Radio (SO2R). My SO2R configuration uses a Yaesu 1000MP and Alpha 87A as the main (run) station. The second station (multiplier) is a Kenwood TS-940, which I picked up in 1991 after returning stateside from my stint as KE9A/DU3, and a Command Tech HF-2500 amplifier. Both stations feed into a WX0B Six-Pak antenna switch so that either rig has access to any band. The Six-Pak also prevents me from accidentally connecting both stations together, which would be disastrous!

I have a 6 band W3NQN design bandpass filter on the 940 and a ICE bandpass filter on the 1000MP. Since I spend most of my time listening on the 940, I wanted the better filter on it. The first couple of years I had no bandpass filter on the 1000MP. What I discovered later is that a bandpass filter on the 1000MP does a great job of cleaning up the transmit signal which in turn reduced the amount of noise I hear on the 940 while transmitting on the 1000MP. For the most part I have very little QRM on the 940 when transmitting with the 1000MP on any band combination. That's the key to making SO2R really work!

When I switched to SO2R operation, I also switched logging programs from CT to Writelog. I'm also using the Writelog SO2R switch box and it's a fantastic combination! I use the latch function which allows me to listen

to the 940 with both ears while the 1000MP is transmitting. In effect I'm always listening to receive audio; the 940 when the 1000MP is transmitting and the 1000MP when it is in the receive mode. I could never operate for any length of time with one radio in each ear. You can also revert to Headphones Normal which allows you to listen to both receive and transmit monitor of the radio you have selected. I should also add the Writelog has a call entry window for each radio. That allows me to check a call on the second radio without disrupting things on the run radio. Writelog also has a lock out that prevents audio from going to more than one radio at a time. SO2R rules prohibit two transmitters on the air at one time.

Back to the action - After a quick sweep of 20 meters, I find a relatively clear spot on 14269 and begin to call CQ at 0131. By 0155 I've added another 38 QSO's and since the rate is not all that high, I begin to put the second radio to work on 40 meters. This becomes a real trick; running on 20 meters while trying to work Europe split on 40. It can be done but it's kind of a slow clumsy process. European signals seem to be a little louder than normal on 40! At 0231 things have dried up on my 20 meter run frequency so I decide to S&P on 20. I'm immediately rewarded with 3B8MM and others such as P43, HK, J75, YV4, CE3 (zone 12), ZP6, FM5, FY5, 9Y4, 6W1, 8P, CX, PJ2, VP5, FG, FS, HC8, and PJ4. During the course of the S&P session, I hear EM1HO in Antarctica call another station. After their exchange I quickly go up in frequency about 1 KHz and gave him a quick call. Bingo he comes back for country multiplier #46. I love it when a plan works! Beginning at 0312, I spend my time chasing stuff on 40 meters with a quick 7 minute trip to 160 at 0348 for NP4A, HC8L, YV2IF, VP9/W4OV, and WP2Z. I grab S51CK and OE6VHF on 40 meters before heading back to 20 at 0400Z. Totals to this point are 307 QSO's and 153 multipliers (countries and zones).

0400 – 1100 GMT

Before heading off to concentrate on the lowbands, I decide to make another quick sweep of 20. I pick up 5H5HK (double mult), VP2E, ZS5GMW (double mult), CP6XE, V47KP, CN2R, WP2Z, V26B, ZD8I (double mult), C91Z, TI8M (double mult), C56ACA, and a couple of South Americans. A 28 minute S&P session produces a mere 18 QSO's but a nice 16 multipliers. At 04:47 I attempt to generate a run on 40 meters transmitting at 7170 KHz and listening lower in the band. By 05:50 I've logged 59 QSO's and a host of new European multipliers. I even had several Europeans call on my transmit frequency. I've never done real well trying to run station on 40 SSB so I'm fairly pleased with the results. During this time I'm working over 80 meters on the second radio. Some of the better catches on 80 are EA9, EA8, LX7, FM5, FP, V47, and EI. With the 06Z hour quickly approaching and more importantly European sunrise, I decide to head to 80 meters and try to fill my log by running Europeans. At 05:54 I set up shop somewhere above 3820 KHz and listen on 3705 KHz. The next 46 minutes blow my socks off! During that period I log a very satisfying 90 European stations and 20 multipliers. The 4 square sure is playing well! I decide to head back to 40 meters and make another attempt at running Europeans. Keep in mind that even though the sun might be up in Europe, you can easily continue working stations for another hour or two depending on your antenna system. I'm using a 2 element Mosley beam at 105'. From 06:49 to 09:12 I bag 139 European QSO's on 40 meters. I don't ever recall doing this well on 40 and 80 meters, especially the first night, so needless to say I'm pumped! During this period I'm also working the second radio picking up whatever I can find on the other bands.

My recollection is a little foggy but early in this period I begin to feel the effects of not taking Friday off and not being able to get a good nap prior to the start of the contest. This is not a good sign! I make it a point to conserve my energy and get to bed on time every night of the week leading up to a contest. Still that's not enough to get me through the first night without problems. That is why I need to log an hour or two of sleep late Friday afternoon. Well I decide to take in a little caffeine and that perks me up but the night is still young and this will be a continuing theme for the rest of the evening. Later on I even nod off just for a second or two in the middle of some QSO's. (sorry OM "QRM"...please give me your call again) I know once I make it to sunrise I'll be OK for the day. As sunrise approaches, I work a bunch of multipliers on 40 and 80 meters in Central/South America and the Pacific. At the conclusion of the 10Z hour, I have 670 QSO's and 303 multipliers (combined zone and country).

1100 - 1900 GMT

Before heading to 20 meters, I grab V6A, ZL1V, VP5X, KH7X, and VK9NS on 40. Europe is getting loud on

20 as I begin a quick sweep of the band. That produces 21 QSO's in 15 minutes. 15 meters is now starting to open but before I go there and grab a frequency, I decide to take on final listen to 40 in hopes of catching a JA or anything else that might still be there. At 11:29 JH1AEP goes into the log for a double multiplier!

I immediately grab 21230 KHz and begin to CQ. On the second radio I want to take a quick listen to 80 before it completely closes. I hear a faint station being worked by a couple of people to the west of me. I'm getting bits and pieces. It sounds like a VK6 but I'm not real sure. Sunrise is upon us and any chance of working him is fading fast. Suddenly I get the call, VK6DXI and with no one else calling, I log him at 11:42 for the VK multiplier but more importantly semi rare zone 29! On top of it I'm able to hang onto 21230 for a run frequency.

Things are getting hot on 15 so it's time to put my full attention there. In the next 66 minutes I'm able to log 145 QSO's and pick up a few stations starting to appear on 10 meters. Some of them include 5U7, SM, IR4, LY, OE, ON, PA, EA, and CQ9 (CT3). I'm not sure why but at 12:56 I move up the band on 15 meters to 21433 KHz. It could be that 21230 KHz was getting too crowded and I was unable to hear some of the weaker stations calling. Conventional wisdom says it's nice to be low in the band but if you have trouble hearing, you might be better off going higher. It's really a judgment call. That move pays off as I run another 276 stations in a matter of 90 minutes. My rate during the 1300Z hour was 199 QSO's! Talk about having a blast! At 1430 10 meters is going strong and I have a decision to make. I'm loath to leave a band where I just ran a 199 hour but 10 is in good shape, as evidenced by listening on the second radio. If something happens that causes it to close early or it doesn't open at all tomorrow, I will be making a big mistake if I don't get up there and grab what I can. This is especially true of any European multipliers.

Actually at this point 10 is going full bore and it's already very crowded. The beauty of 10 meters though, is that there is a lot of real estate. In years past I've generated just as good of a run high up in the band as I have down low. The key, as was the case on 15, is to find a spot where you can hear. With that in mind I plunk down on a perfectly clear 28823 KHz. Operating is much less fatiguing when you have a nice clear spot such as this. However, that won't last forever as the band continues to fill up but I enjoy it while I can.

I enjoy a pretty good run for close to an hour until the rate meter begins to drop off. I begin to wonder if 10 is going flat. Signals are still loud and I feel like I need to milk 10 for awhile longer so I decide to see if I can find a spot lower in the band. Sometimes moving to a different spot on a band with a lot of room like 10 can get the rate restarted. 28412 KHz is pretty clear so I plop down there and begin to run more Europeans. The next hour and a half produce 194 QSO's on 10 meters and 33 second radio QSO's on 15 meters. As I move into the later half of the 1600Z hour, it's apparent 10 is quickly falling off and I'm working more stations with the second radio on 15 meters. I wind up back on 15 meters at 1700Z after a quick trip to the men's room and a bite to eat. By 1900Z 15 meter runs to Europe begin to dry up.

There is one other thing I do during this period that I would like to touch on. While running stations, it's important to keep an eye on your multiplier list so if, for example, LX1EA calls you on 10 meters and you see you need Luxembourg on 15, you can attempt to move the station. My approach to moving stations is this. I'll mention that I need them on 15 meters and politely ask if they would be willing to move. If so, I find a clear (relatively speaking) frequency on the second radio and pass the station there. Most of the time a station is willing to move. Some however find it a real put-off. Some don't even answer my question. Others just say no. In that case I thank them for the QSO on "this band" and move on. The last thing I want to do is turn off one of these stations to contesting. I know some of these stations get many requests to move to other bands.

Now after spelling out my philosophy on moving stations, I have to share one example from this contest. On Sunday at 13:43Z, ST2T calls me on 10 meters for a very nice double multiplier. I ask him if we would be willing to move to 15 and he says sure, give me a frequency. Unfortunately the frequency I move him to quickly becomes covered in QRM and I'm unable to hear him. I go back to CQing on my 10 meter run frequency and ST2T calls me back. He says let's try it again; "I'll go and look for a new frequency." That sounds good to me! Two minutes later he returns with a frequency and we have a nice clear QSO on 21288 kHz for

another double multiplier. In all my years of contesting, I don't ever recall a station, especially this rare, so willing to go out of his way to work me on another band. I must have been living right!

1900 – 2400 GMT

As you can tell, a vast portion of my operating time is spent trying to run stations. Yet I've learned that there are times when S&P is the preferred method. One of those times is late afternoon. Often I find it useful to point the beams south and sweep up all of the PY's, LU's, and multipliers in the region that I have not worked so far. I'll do this on 10, 15, and 20 meters in no particular order. The next 75 minutes of S&P produce 95 QSO's and 43 multipliers. Many of the multipliers are common stuff but some of the highlights include 9J2KC (double mult), VE2GSO (zone 2), 5U7JB, 5H3HK, ZS5GMW (double mult), JW5E (double mult), J75J, and H6C (YN).

At 2000Z I feel like I've pretty much milked all of 10 and 15 meters until later when the bands will hopefully open to Asia and the Pacific. According to my score box in Writelog I have a paltry 220 QSO's on 20 meters. It's pretty obvious what I need to do. I align the 20 meter stack to Europe and burrow my way through the QRM into 14213 KHz. The first hour (20Z) produces a 170 QSO hour and when I finish up at 22:27Z, I've logged a total of 341 QSO's and 15 multipliers in the two hour and 20 minute period. Needless to say I'm pretty happy with the results! During this run some of those who called were RK9JWV (zone 17), 3V8BB, 9L1ADA, 5X1GS, 4X0WV, GJ7DNY, and several VK's long path. The remainder of the first day I spend jumping around between 10, 15, and 20 meters working whatever I can find. At one point I try unsuccessfully to generate a run to Japan on 15 meters. Nevertheless I do bag some nice multipliers VK6KK (zone 29 on 15 meters), ZD8I (double mult on 15 meters), VE8JL (zone 1 on 10 meters), ZK1AQT (10 meters), KG6DX (Guam – 10 meters), ZL6QH (10 meters), and HL0ERE (10 meters). Totals for day 1 are 2168 QSO's and 543 multipliers (combined zones & countries). I'm very pleased so far especially given where we are in the sunspot cycle. Yet I have no idea how much better things are going to get on Day 2. [continued next month]

My First Major Contest with the Orion

By Fred Laun, K3ZO

An earlier article described my first impressions of my new Ten Tec Orion. This one will describe what I observed as I put it through its paces in the 2004 CQWW SSB contest.

When my good friend Gene, W3ZZ, sat down in front of my Orion the first thing he said was: "It's a noisy radio. I have never liked noisy radios."

As the owner of an FT-1000MP, I have also become used to a quiet radio. The 'MP is very quiet. In the past I too have disliked noisy radios. The TS-930's and TS-940's I have operated at other stations always put me off because of their excessive internal phase noise on receive. That's why I kept on using the TS -830S which has a nice quiet receiver. But the noise I hear in the Orion is not phase noise but just what one might call "band noise". For one thing the Orion has a selectable pre-amp which you can use on any band, not just 12 or 10 meters as with the 'MP. Since I have always been one who likes to see S-meters jump around liberally and one who gets a morale boost from thinking I have a powerful receiver, I have ended up keeping the Orion's pre-amp on all the time.

In phone contests using the 'MP I was frequently bothered by splatter from several KHz away by some of the loud European club stations. As near as I can tell one reason was that the 'MP is so quiet that any kind of noise became disruptive to some extent. I have to say that with the Orion I only recall being bothered twice by adjacent splatter during the whole contest. Once was on 20 meters late in the contest and I finally moved. The other was on 10 meters when the skip changed and FY5KE, who I had been apparently operating along side of for a couple of hours without either of us bothering the other, suddenly got loud when the skip changed. I needed him for a mult so I worked him and moved.

It's a little hard for me to put into words exactly what I observed, but since the noise caused by splatter is

pitched exactly the same as the "band noise" always present in the Orion, the splatter sort of "blends in" with the existing noise and therefore the increment of change is lower to the ear than with the 'MP.

Of course I am speaking as one who prefers a wider filter bandwidth than most operators seem to prefer. With the 'MP on SSB I always kept the first IF at 6 KHz and the second IF at 2.4 KHz.

When I was a young man I was enamored of narrow filters. At my college club station W9YT we had a pair of Collins R-388 receivers and you could take the IF output of one and feed it into the antenna input of the second one, using them in series, and I loved it. Talk about narrow filters! The chirps heard on many CW signals in that 1950's era would not fit into the passband of that setup!

When I was in Argentina as LU5HFI I was way out in the country and so I put up a good 160 meter station and hit that band really hard. We weren't that far from the tropics so with a good antenna, even during the Argentine winter season, there was almost always a lot of QRN present on the band, and with few exceptions the signals on the band were all thousands of miles away.

By fooling around with the Drake B-line I had at the time I learned that I could actually copy signals better through the QRN by opening up the filters wider. The reason seemed to be that narrower filters would "pitch" the QRN in such a way that its sound became more disruptive to the ear. If you smoothed out the filter response so that the pitch of the QRN blended with the pitch of the band noise, the brain felt less annoyance somehow and could concentrate better on making sense of the target signals. Thus began my love affair with wider filter bandwidths. I should say that this was reinforced when I bought the house in which Bob, K3EST was already a tenant and had the privilege of observing this world-class operator put my station through its paces. Wonder of wonders, he also preferred wide filters, at least in those days.

You know, so much of the discussion about filters focuses on their technical parameters, with diagrams and analyses of skirt shapes and such. Am I the only one who asks: "Yes, but what does the ear actually want to hear?" I have always "listened" TO my ears as well as with my ears. They want more highs, especially as I get older, to compensate for the falloff in highs they are getting as I age. So why narrow the filter down to the point where the highs they want to hear are eliminated? At the same time, to use my earlier example, a narrower filter "pitches" the adjacent-channel splatter so that it becomes more annoying and disruptive.

Enter the Orion. It allows you to vary the bandwidth in a linear fashion so that adjacent-channel splatter is pitched to sound the same as the band noise. When there is line noise, the same filter settings often pitch that noise to sound the same as band noise also. So while the Orion has noise blankers that are considerably better than those in the 'MP, I have found that sometimes when I encounter line noise it blends in well enough with the Orion's band noise so that I don't need to engage the blankers. Any noise blanker, no matter how effective, will of necessity increase distortion caused by the non-linearity of its operation, so if you really don't need to turn it on, so much the better.

It turns out that on SSB the bandwidth I prefer for the Orion is right around 3000 Hz. That seems to be where the noise pitch and the splatter pitch equal each other. I might adjust it a bit from time to time using the "low-cut" or "high-cut" controls to drop an adjacent station off the filter edge, but it stays close to 3000 Hz.

I also noticed with the Orion that no matter how many stations called me at the same time they didn't all blend together and I was able to get one whole call while getting bits and pieces of other calls at the same time. This saved time because after working the first guy I could say "now the station with Lima go ahead" or some such. But to store the other bits of calls in your memory like that does use brain energy, so actually I don't recommend doing it very often. Not at my age!

I found that I had more stamina than usual and I got by on only one cup of coffee the whole weekend where I was in the chair a total of about 42 hours. I attribute this to less mental fatigue from trying to drag calls through annoying QRM. On the transmit side, I noticed that the Orion drives my Ten Tec Titan 425 amplifier about the

same on 80, 160 and 15, more on 40 and less on 20 and 15. After SM2EKM complained about my audio when I first put the rig on the air I had spent considerable time adjusting the Orion's transmit audio while listening on my TS-830S. I discovered that with the Orion you can't crowd the mike as I had become accustomed to doing over the years. I now attempt to stay four or five inches away from the mike when talking into it. At least using my audio system which includes a W2IHY box ahead of the radio.

I was gratified to find in my e-mail in-box after the contest a .wav file from HA5PP with a recording of my 10 meter signal. I was very pleased with what I heard, very sharp audio, nicely pitched and with quite a bit of "sparkle" to it. Also it was remarkable how you couldn't tell the difference between the recorded CQ and the live mike. Both sounded exactly the same.

I will make one minor complaint about the Orion on this score, however. The Orion comes with three pre-recordable audio channels. However, two of them are so short that I can't imagine what they could be used for except to say your call once as you go around the band in S&P mode. I consider using a pre-recorded message used for that purpose to be the height of laziness. Only one of the three channels allows you to record a message long enough for a CQ call, and that memory is erased each time you power the radio off, so once you record it before the contest you better leave your radio on for the duration.

I know, you say, use the computer to do your recordings. But being just old fashioned enough I still resist connecting the computer to my radio, feeling that it's just one more thing that can get screwed up when the AC power goes off or for some other reason.

Yes I know I was roundly beaten by our own Ken, K4ZW among others. But that would have happened with the 'MP too. No matter how good a piece of gear may be, past a certain point you can't improve because you're stuck with the same operator.

Anyway, for me the Orion passed CQWW SSB with flying colors. Now bring on CW SS!

New Maryland Meeting Place Sought

Ray Conrad, KT4W has been asked to explore possibilities of a new Maryland meeting place for the Central chapter, since relatively few of our members live in southern Maryland any more. If you attend the central meetings and would like to weigh in on this subject, Ray invites your comments to KT4W@hotmail.com.

Short Take—Jonny Balls **By Pete Smith, N4ZR**

Did you know that the common "jonny-ball" strain insulators used in guy wires have a top and a bottom? Neither did I, till I noticed that all 3 insulators on my lower guy set were broken. An inquiry on Towntalk revealed that when these insulators are manufactured, the glaze is left off one end. You can readily see the rougher, dull surface. If you install the insulators with this end up, water can soak into them, and when it freezes, they can crack.

A word to the wise....

**Will PVRC win the ARRL 10-Meter Contest again this year? Not
without YOUR help.
Be radio-active!
Contest begins 7 PM Eastern Time December 10
See YOU there?**

Super Stackmatch Plus

By Mike Sims, K4GMH

This is a design for a BIP/BOP/SO2R 2-High Stack Match. The circuit (Figure 1) is based on the Stack Match described in the ARRL Antenna Handbook with the following deletion and additions:

- * Ability to select a third antenna removed
- * 180 degree phase shift Transmission Line Transformer (TLT) added
- * Selection of the bottom antenna for exclusive use by the second radio added

The antenna system at K4GMH using two of the Stack Match Plus units is seen in Figure 2. All antennas are on a single tower.

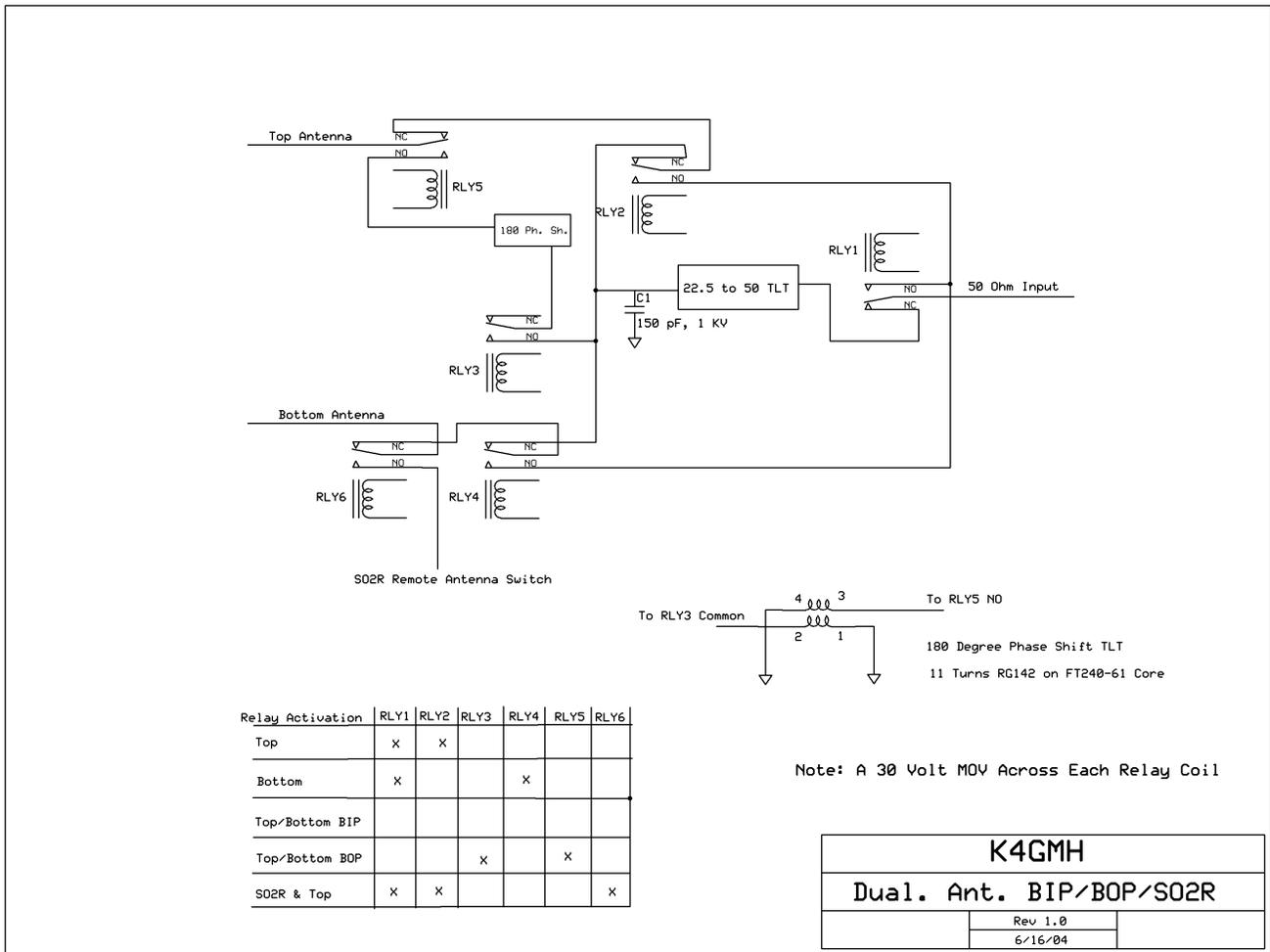


Figure 1

The 180-degree phase shift TLT is similar to a standard 1:1 TLT except for the swapping of the output. It was checked on 7 and 14 MHz (my scope is only good to 20 MHz) and demonstrated the 180 degree phase shift. (My thinking is that with my antenna system and normal propagation, the Both Out of Phase [BOP] only will be used on 40 and 20 meters.)

The PCB is homemade. Artwork for the double sided board is available (k4gmh@arrl.net)

with practice traffic, nor do we want to expose our stations to untrained operators unless there is a compelling cause. There are some very interesting opportunities for us to actually make a difference in emergency situations by applying the capabilities and knowledge we have developed in our stations and operating skills. We have almost unique capabilities that may be wasted on the day our families and others need us most if we do not get involved and prepare.

Current emergency communications provided by Amateur Radio operators have capabilities that do not include adequate connections between the Counties and States of our region, or to National or International locations. Some of our Multi-operator contest stations could perform as hubs (major nodes in an extended network), able to establish links in multiple directions on various bands, and offer packet and high-speed Internet connection. Single operator stations could provide important support. Mobile contesting stations such as Rovers could bring up the critical links from a local emergency control center to regional nodes. Our extensive Field Day operating capabilities may be important. Digital modes and email capabilities may be feasible by Winlink, APRS, and Echolink. Our emergency power, tower mounted antennas, and redundant assets are all important. There is a serious opportunity for us to contribute!

Many PVRC members in the meeting were interested in following up on the concept with Mike Carr, and on the recommendation of N3RR we agreed to form a joint task force between PVRC and ARES to better understand the needs, capabilities, and potential roles for contesters and formulate a plan to present to our membership. Volunteers to represent PVRC on the Task Force include N3RR, N3OC, K4VV, W3DQ, K3ZO, K3RA, W3RL, K3TW, and KC3VO. Mike Carr and I will coordinate the follow-up.

Central Virginia Contest Club, November 9 — Those present: K4KML, W4DR, K4JA, W3BP, W4HJ, N4EHJ, WK4Y, NK4H, N4DWK, N9WMU, WD4LBR, KG4WNW, WU4G, KI4FDF, N4DEN, W4MYA.

The regular meeting was called to order by Marie Long, secretary, at 7:02 PM. Members introduced themselves. Old Business -- We need program suggestions. New Business -- members approved the PVRC slate by acclamation. The club wishes Rosalie, N4CFL, a happy birthday. Bob Eshleman, W4DR, conveyed Rosalie's thanks for all the cards.

Treasurer's Report -- Bob, NK4H, reported our current financial condition.

Bob Morris, W4MYA, reported the results of his survey of CVCC club members. Seven responses were reported out of 35 members polled. Jay, N9WMU, encouraged us to tie in with RARC's training program for new amateurs to stimulate interest in contesting. A lively discussion on attracting new recruits to contesting followed. Sejo, KI4FDF, was voted into membership in the CVCC.

The Christmas Dinner was rescheduled to Dec. 20 at 6 PM at Topeka's on Parham. This was at the request of several members because of a conflict with the PVRC dinner/meeting on the 13th.

The presentation was a video of the last Peter 1 Dxpedition in 1996.

The meeting was adjourned at approximately 9 PM. Submitted by Bob, W4DR

Northwest Region Meeting November 2004 — The NW Region met at the City Buffet in Frederick, MD on 16 November 2004.

In attendance were N3HBX, W3BTX, W3TEF, W3YOZ, W3SF, KB3LGS, N4MM, K8OQL, W2YE, N3ST, K2PLF, W3EKT, W3KHZ, WF1L, K3TZV, NE3H, K3WC, W3ADX, W3ADC, N3VOP, W3IDT, W3ZZ, K3DNE, W8ZA, W3ARS and W3LL

Announcements: Thanks to Tom W3SF and Justin KB3LGS for sharing their experiences and discoveries in the CQWW SSB contest. It brought back memories of first exposure to a WW contest and maybe yours.

NW Business: NW members voted on the following 2005 PVRC officer slate: President K4VV VP W3DQ and WX3B Secretary WM3T Treasurer WR3L Nominated Trustees K2AV and N3OC 2004 Trustees KE3Q, K4IQ, N4AF, K3MM, W3PP, W4ZYT, N4ZR, W4MYA, ND3A, N1KC. The 2005 officer slate vote tally was 26 of 26 member votes cast in favor.

Thanks to Ed, K3IXD for handling the NW email announcements this month while Kayren and I were on vacation at Anna Maria Island. Marty, K2PLF volunteered to host the 18 January NW meeting when Kayren and I will be on a Caribbean cruise.

From Around the Table: N3HBX, John's towers are up at the new station with the first antennas scheduled to go on next week. However, the legal expense is at \$24,000 so far with no end in sight. He survived one attempted restraining order and a preliminary injunction sought by his neighbors. Trial is set for next year on the interpretation of the county zoning ordinance. The ordinance was alleged to be misinterpreted when John was granted his permit. Cables are laid to the towers but there is nothing yet in the shack.

Mark, K4KD operated at John's home station in CQWW SSB and will again this weekend in the SS SSB contest. W3BTX, Bob operated at W8ZA during CQWW SSB. He's doing work at W3SO in preparation for the January VHF SS contest. W3TEF, Roy enjoyed operating at W8ZA's mountain top station in CQWW SSB. Both Roy and Bob, W3BTX will be going to Aruba in early January so be on the lookout for them on the bands.

W3YOZ, Marty is on from both West River, MD and Altoona, PA, the home of W3SO. Last year it snowed in mid October in Altoona but this year November's great for antenna work. The December issue of CQ magazine has the W3SO team and station depicted in two places. W3SF, Tom participated in CQWW SSB. He's still spending a good bit of time working on the VHF repeaters at W3SO. A 50A Astron PS with battery backup along with 150W amp are among some of the items added to W3SO in preparation for winter at the top of the mountain. KB3LGS, Justin from Altoona say's his dad W3SF just stole all his comments.

N4MM, John managed 318 Q's and all 80 sections for a club contribution of 50K points in SS CW and an additional 500K in CQWW SSB. In the December issue of QST, PVRC is reported to have won the June VHF contest in the medium club category and a Field Day win for class 50A. . . . John reports there is a movement to split Virginia ARES into two sections, North and South because the ARES people cannot get along with one another. However, John reports it's not an easy process to create a new section. . . . John would like to see the 5M award modified to include some recognition between the 10M bar achievement award and 25M award. Some of us may not live long enough to reach 25M! Adding a 15M and 20M bar achievement award should be a minor expense for a club with a surplus of funds. John requests the NW chairman take this suggestion to the PVRC awards committee for inclusion next year.

K8OQL, Jerry had a pleasant time at W8ZA for CQWW SSB. On the way home he was torpedoed by a deer but that will not deter him from working this weekend in SS SSB and the following weekend in CQWW CW at W8ZA. Jerry is looking for a place to go for ARRL 160M and 10M contests. W2YE, Dick was all psyched up for the WAE RTTY contest, downloading info from three websites, learning all about QTC's, getting the computer set up and then finding the bands dead for the contest. He had 425 contacts and 200k points on dead bands for a first attempt at this contest!

N3ST, Bryan was in the CQWW SSB and plans to be in the CW portion if he gets all the equipment working again. He's getting ready to put up a 160M antenna for the upcoming 160M contest. W3KHZ, Art didn't have much opportunity to get on this past month. He did get a new Heil Quiet Phone headset which works amazingly well with a washing machine about five feet from the operating position, a dryer at seven feet and an oil furnace at ten feet.

W3EKT, Ed been concentrating on the low bands. He's in the nineties confirmed on both 80M and 160M. His

three element SteppIR has been up for the last few months and is the best single multi band beam he's ever used. K2PLF, Marty was at PJ2T with Jack, N4RV and Hal, N4GG along with wives. They went down eight days before the contest and stayed at a resort located a half mile from the station. They had a lot of fun on the WARC bands prior to the contest. The trip converted Marty to Writelog and he'll have it running at home. In the SS CW contest RF locked up his computer when changing bands to 40M. The problem was traced to a device which allows the use of two computers off of one keyboard, mouse and video display. The good news is this sent Marty to 80M which was his best band. For those who are questioned about their stealth antennas, the answer is "Homeland Security, I just can't talk about it". Works every time. The corn was harvested last week, so the 160M antenna will be going out. Marty has a mint Bencher Skyhawk antenna for sale. It's still in the original box.

W3ARS, Clint has been away from the NW meetings for the last year. He worked the CQWW SSB contest at the Mason Dixon hamfest. Clint will be in the November Sweepstakes and either hilltopping or roving in the January VHF contest. WF1L, Bill had 15 Q's in the WAE RTTY contest after working everyone he could hear. He'll be in the SS SSB this weekend. K3TZV, Steve hasn't done much operating. He's looking forward to a short and mild winter. NE3H, Joe has been in town for the last three weeks. He made 300 Q's in CQWW SSB and had fun in SS CW with 300 Q's and 60 sections. Joe also found terrible conditions during the WAE RTTY contest managing 200 Q's. He'll be back in Taiwan for CQWW CW as BX2/NE3H from his 14th floor hotel room.

K3WC, Dusty hasn't done anything while waiting to hear from SteppIR on the delivery of his MonstIR. W3ADX, Nathan had nothing much to say. W3ADC, John lost the finals in his IC746PRO. He had a good time in CQWW at K3PZN where he made the front page of the Carroll County Times. N3VOP, Mike reports the Carroll County ARC showed a profit for their hamfest. He'll be in the SS SSB and 10M contests. Also the 160M contest if he can put up a Homeland Security Antenna. W3IDT, Bob along with W3LJ and KA3UBJ multied in the CQWW contest. They'll be on for SS SSB.

W3ZZ, Gene put in his first serious contesting effort in the last five years by working CQWW SSB from W3LPL on 15M along with K1RZ. Gene reports W3LPL won the Multi category in the US. First time since maybe 1992. He's reminded each time he goes there how well that station works. The large crew worked hard and were about 700K points above KC1XX which may have surprised everyone. Gene missed SS CW but will try to get on SS SSB. There was a good Aurora on Sunday night of SS CW which was dreadful for that contest but did things for VHF - especially 6M. He believes he worked KH6SX off the Auroral curtain. The VHF committee made three recommendations: 1. A limited single op category - any four bands with up to two hundred watts input. 2. Eliminate grid circling. 3. Eliminate captive rovers. A decision is not expected for another two to three years.

K3DNE, Ed was at W8ZA for CQWW SSB and very much enjoyed Bob's station and hospitality. Ed is gearing up for this weekend's SS SSB contest. He'll be trying out his fourth logging program. He's gone thru CT, Writelog and N3FJP. This weekend it's N1MM's turn which has everything from the other three all put into one program. Ed is recovering from equipment failures suffered from the September VHF QSO Party. He lost his big 8877 amplifier. The 8877, being an MRI pull, was at the end of its service life. The spare works well enough. The home brew 222 MHz single 4CX250 amp should be fixed for the January VHF contest. Because of the work on these two amps the 3456 MHz amp won't be available which leaves 200mw on 3456 - he did manage 12 grids with 200mw in the September VHF contest thanks to W3IY rover.

W8ZA, Bob noted a few problems encountered during CQWW such as a rotor that would not turn to the SE quadrant, a Beverage box that was not working, a power outage and a flare which shut down all propagation. However, they generated 2,251 Q's, 157 zones and 548 countries and DXCC on three bands including 10M for a point contribution of 4. 4M points for the club. In SS CW, at QSO 189, the counter jumped to 1901 which wasn't noticed until after he sent it to Pete, N4ZR. The effort produced 38K club points. SC, PAC and NFL were missed for the sweep. Jerry, K8OQL will be operating the station during SS SSB. CQWW CW will have K8OQL and maybe WD3A at the station. Pictures taken during the W8ZA CQWW operation, and passed

around during the meeting, were courtesy of K8OQL, W3TEF and W3BTX.

W3LL, Bud contributed 800K points in CQWW SSB. He'll be active in this weekend's SS SSB contest. The latest word from SteppIR on the MonstIR is delivery delayed to sometime in December. Because of the continued delays he requested delivery be moved to May along with completion of the tower installation.

The meeting adjourned at 8:00 PM. The next NW Region meeting is Tuesday, 18 January 2005. This is after the Monday 13 December Holiday Dinner!!!

73, Bud Governall, W3LL, Northwest Region Chairman

Free Schematic Software

By Pete Smith, N4ZR

Several people have asked me about the software that produces the schematic diagrams that accompany technical articles in the Newsletter. I credit Mike Sims, K4GMH for putting me onto ExpressSCH, excellent software made available by ExpressPCB, an online PC board vendor. The software is relatively easy to use, includes a large variety of digital and analog component symbols, and interfaces with the company's PC board design software to facilitate turning schematics into PC board artwork..

Both packages can be downloaded from www.expresspcb.com , and the best part is, it's all free.

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PVRC REFERENCE PAGE Please send corrections to the editor. December 2004

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PVRC Dues PVRC has no annual dues. Donations are gratefully accepted by the Treasurer, Dave Baugher WR3L, 615 Rockaway Beach Ave., Baltimore MD 21221. Please make your checks payable to PVRC.

Autocall Column Editor is K3DI 410-757-6706

PVDXSN Packet Network

W3LPL	Glenwood MD	145.590, 441.250	w3lpl.net	W3IP	Crownsville MD	145.570	
WR3L	Baltimore MD	145.610, 440.950	wr3l.net	N3RR	Rockville MD	145.510, 441.325	
K3SKE	Frederick MD	144.930, 441.125	12.173.48.67 port 23	W3YOZ	West River MD	144.910	
W3TOM	Acokeek MD	145.770		N1WR	Lusby MD	145.690	
N4OHE	Mt. Weather VA	145.710, 446.025		NE3H*	Harrisburg PA	144.970	
W3BD	S. Mountain PA	145.630		N4SR*	Woodbridge VA	145.630	
W4XP	Bull Run Mtn. VA	144.990		K4JA*	Callao VA		dxc.k4ja.net
				W4ML	Goochland, VA	145.09	dxc.w4ml.net

Most of the system is sponsored by the Potomac Valley DX Spotting Network. Nodes with * are independently funded by each SYSOP., The W4ML node is funded by CVCC.

PVRC Meetings

CENTRAL: The Central Meeting is always the second Monday (except June, July, and August) at 7:30 pm. The central meeting generally alternates between MD and VA locations. A pre-meeting dinner is usually held between 5:00 and 6:30 pm. Check via 147.000- repeater. VA LOCATION: The Patrick Henry (Public) Library, Route 123, Vienna, VA. MD LOCATION: Church of the Nativity (Episcopal), Route 5, Temple Hills, MD.

Pre-MD meeting dinner at Topoleno's Restaurant about 6:00 or 6:30 pm.

NORTHWEST: Chair: Bud Governale, W3LL, 410-666-9189. W3LL@arrl.net. Meets monthly the 3rd Tuesday. Informal dinner about 6pm; meeting at 7pm at the City Buffet, 1306 W Partick St, Frederick, MD 301-360-9666. Rear of shopping center, behind Mountain View Diner.

NORTH CAROLINA -- EAST: Chair: Guy Olinger, K2AV, k2av@contesting.com; Sec: Jim Price WW4M. POC's are K2AV and WW4M (h:919-362-4635, w:919-460-2991). PVRC/NC meets at 6 pm the first Thurs of each month, plus an additional meeting in April at the Raleigh Hamfest. For details see <http://pvrcnc.org>

NORTH CAROLINA -- WEST (TRIAD): Meets the 4th Monday of the month at 7:00 PM at Cobalt's Elemental Eats and Drinks on Deacon Blvd. in Winston Salem. Ragchew at 6:30. Directions are available upon request. The chairman for the new PVRC/NC West chapter is Henry Heidtmann W2DZO, henry@summitschool.com and the secretary is Robert Whitaker KG4NEP, kg4nep@yahoo.com.

TIDEWATER COLONY OF PVRC: This group now meets in conjunction with the Virginia DX Century Club at Ryan's Steak House, which is on Battlefield Blvd in Chesapeake, at the Battlefield Blvd South (VA 168) exit off I-64. The meeting is still the third Tuesday of every month. We gather for dinner around 1815-1830, with the meeting around 1915-1930. Contact W4ZYT at 757-457- 5181 or w4zyt@exis.net for additional info.

SOUTHWEST VA: Coordinator: David Jones, N4JED, Vinton, VA 540-890-2034, N4JED@AOL.COM. Meetings begin at 6 pm at the Roanoker Restaurant, Roanoke, Virginia in a private room (ask at the desk if you have not joined us before).

BWI: Weekly breakfast Wed at 7:00 AM at Basil's Deli Port on Elkrdige Landing Rd 1/4 mile South of Winterson Road 410-850-4333. Director: Ike Lawton, W3IKE, 410-263-2830. Sec: Howard Leake, W6AXX, 410-465-7008, w6axx1@starpower.net

OVER-THE-HILL LUNCH BUNCH (VA DC MD): Meetings are held monthly at two locations: Falls Church, VA (Parkview Marriot) and Beltsville, MD. Meetings are announced by E-mail. All members, their guests and non-members interested in membership are welcome. For information contact Roger Stephens K5VRX, rogerergo@netzero.net, 703-658-3991 for the VA meetings; or, Bill Leavitt W3AZ, 301-292-5797 for MD meetings.

PENNSYLVANIA: Steve Cutshall, K3TZV, k3tzv@paonline.com, 717-763-0462.

RAPPAHANNOCK: Steve Bookout, NR4M (ex-NJ4F) NJ4F@erols.com. Also, Larry Schimelpfenig, K7SV, k7sv@va.prestige.net

OCOQUAN: Jack O'Mara W4NF, H:703-791-3302 W:703-739-7636 w4nf@comcast.net and Cliff Deel W4CE, w4ce@aol.com 703-491-0841

CENTRAL VA: Pres: Ed Moore - NW4V - nw4v@comcast.net, Secy: Marie Long - K4KML - long2624@netzero.net, Treas: Robert (Bob) Ladd - NK4H - rladd@comcast.net. Meetings are held on the second Tuesday of the month at 7:00 PM at the Henrico Doctor's Hospital, 7700 Paraham Rd., Richmond, VA. To the right of the main entrance is a second entrance. Go through that door, turn left through that door and the cafeteria is the first room on the right. There

will be some who meet at Nick's Roman Terrace, Westlands Shopping Center, West Broad Street starting at 5:50 PM for dinner before the meeting. Talk-in available on 145.430

SOUTHERN MD: Chair: Wayne Rogers N1WR E-Mail: n1wr@chesapeake.net Phone: (H) (410) 394-0313 Meetings held at the home of N1WR.

EASTERN-SHORE (DEL-MAR-VA): Dallas Carter, W3PP 302-875-0550 ludal@dmv.com

SHENANDOAH: Bill Hinkle KV3R kb3aug@juno.com 304-567-3138

CARROLL COUNTY: Jim Nitzberg, WX3B.410-374-9233 nitz@selectsa.com

LAUREL: Pud Reaver W3YD preaver@earthlink.net Laurel Region meets concurrently with the Laurel Amateur Radio club at the first LARC meeting of each quarter.

NORTHEAST: WR3L Dave Baugher 410-DX1-WR3L dave@wr3l.net

ANNAPOLIS: Dick Wilder, K3DI 410-757-6706

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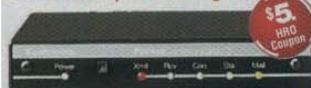


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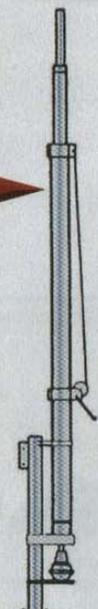
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