Potomac Valley Radio Club Newsletter
October 2007 Edition

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

TUESDAY, OCTOBER 9 AT CAPITOL COLLEGE, LAUREL, MD (7:30 PM)
Jim Brown, K9YC, reknowed audio expert and RFI Guru
THURSDAY, OCTOBER 18 DOWNTOWN LUNCH (12 noon):
Kristen Haring, author of "Ham Radio's Technical Culture"

FROM THE PRESIDENT *-- Jim, WX3B*

Attention: All Hands On Deck!

That's right, the official 2007 – 2008 contest season is about to begin! Sounds hard to believe, but temperatures SHOULD be dropping, along with the price of beachfront lodging prices in Ocean City, MD – something I'm still anxiously awaiting.

In October, there are a number of excellent warm-up events for your operating pleasure. M personal favorites include the California and Pennsylvania QSO parties.

Digital fans can get their feet wet with the Makrothen RTTY contest. And don't forget the multiple 'sprint' events, worked all Germany (that's what WAE felt like to me!), Oceania DX and many others.

Go to Bruce Horn's excellent calendar http://www.hornucopia.com/contestcal/contestcal.html for a more detailed listing.

The Father Of All Contests, the **BIG ONE,** takes place during the last weekend of October. It's the CQWW SSB contest, of course. Everybody works everybody as long as they're DX, and we work local guys if we need the zone multiplier. This is a contest everyone can love – the exchange is easy, it is extremely well attended (lots of activity), where everyone from superstations to little pistols can have a great time. There are always a number of semi-rare stations activated from remote locations attempting to win specific categories of the contest.

Our October central meeting is going to be a lively one!

Jim Brown, K9YC, the Audio and RFI expert is going to be giving a presentation on October 9th at the Capitol College in Laurel, Maryland.

There will be a pre-K9YC dinner There will be a pre-meeting dinner at 6:00 PM at the Old Country Buffet, 9608 Fort Meade Rd in Laurel, where I expect to lead an enthusiastic discussion of our plans to move back into first place for the ARRL November sweepstakes this year. I have been following NCCC's newsletter carefully (I know they read ours as well), and can promise you that they are gearing up for a great re-match. It's not beyond the realm of possibility that former champions, the Society of Midwest Contesters (SMC) will get stoked and have a great turnout for this event.

I know there are several PVRCers planning DX-Peditions for the CQ contests in October and November. Please consider posting your plans directly to the PVRC reflector so we can publish them in upcoming editions of the newsletter.

Please mark your calendar for our Holiday Dinner at P.J. Skidoos in Fairfax, VA on Monday evening, December 3rd. Formal announcements with menu choices, etc. will be happening in early November.

The floor for PVRC Officer and Trustee nominations remains open. The current slate contains the following leaders:

1. President: K4ZW (Ken Claerbout)
2. Vice President #1 KD4D (Mark Bailey)
3. Vice President #2 NI1N (Tom McAlee, Jr.)
4. Secretary: WM3T (Anthony Brooks)
5. Treasurer: WR3L (Dave Baugher)

Board of Trustees: W4MYA, K3MM, N3OC, N4AF, N4ZR K2AV, ND3A, W4ZYT, W3PP.

Finally, I am pleased to announce that Don Daso, K4ZA has also been nominated to the PVRC Board of Trustees. Don has been very active operating at W3LPL, and a group of us know him as the station design and tower professional working on some rather large projects in PVRC territory!

Best wishes to everyone for a great 2007 – 2008 contest season and I'll be listening for you in Sweepstakes!

73, Jim Nitzberg WX3B

EDITOR'S PREROGATIVE -- Eric, W3DQ

We've just reached the end of summer, and rumor has it that the leaves will start turning color and falling, along with the temperatures.

October brings lots of excitement to the contester and to the PVRC. With the leaves scheduled to come down, now's the time to arrange with our fellow PVRC members for antenna parties, not to mention tower and tree climbers and ground crew, in order to finish those lingering antenna projects. It's also time to think about strategies for CQWW, and the ARRL Sweepstakes, 160 meters and 10 meter contests. Remember WX3B's mantra: "the winning club is the one with the largest number of entrants." Now's the time for PVRC members to work together to get everyone's station up and running in tip-top shape.

Finally, make note of our two special programs coming up this month. On October 9th, renowned audio expert and RFI guru, Jim Brown, K9YC, will be making a presentation about audio and RFI at Capitol College.

On October 18th, Kristen Haring, author of the controversial book (within the amateur radio community), "Ham Radio's Technical Culture," will be speaking to the downtown lunch group. We have two reviews of Dr. Haring's book in this issue of the Newsletter. Seating at the luncheon will be limited, so please RSVP quickly when the meeting notice comes out.

Finally, this month marks the 50th anniversary of the launch of Sputnik, an event that many believed changed the course of history. This issue of the Newsletter has a great deal of material on Sputnik, including a review of the book "Sputnik: The Shock of the Century" by local author Paul Dickson.

Once again, thanks to all who contributed to this month's Newsletter.

See you in the fray!

73, Eric Rosenberg, W3DQ

CONTESTING ON A BUDGET
-Mike, K4GMH

Paul, K5AF, asked the CQ-Contest Reflector members to provide comments for his Contesting on a Budget column in the Nov-Dec NCJ. The topic is one that Don, K4ZA has probably addressed already, *Scrounging, Scheming And Stockpiling…Keeping That Old Piece Of Gear On The Air*. I've turned the question around to answer the question, *How I Use Internet Reflectors to Maintain and Improve My Station*"

All my equipment is either old or homemade. The radios are a pair of IC746s and the amps are homemade using GS-35B tubes. The station is used mainly for SO2R in RTTY contests.

I've found the internet reflectors (mail lists), to be a great source of help keeping the older equipment working, finding the parts or substitutes (if out of production) and getting the homemade stuff to work. I've used the ICOM reflector and the IC746 reflector for questions about radio repair and improvements. The Amp reflector was used to get parts, advice, suggestions and encouragement while building the amps. The Tower Talk reflector has been used to get answers regarding the antennas, antenna system, feedlines, etc. especially information for maintaining and improving older antennas and even new ones.

Good information on how-to for solving a problem has been obtained two ways from reflectors. The first is from the appropriate reflector's archives. Most have keyword searchable archives of all the messages that have been posted on the reflector. Sure helps to find out what others did as well to find out who the persons are that were smart enough to find a fix for the problem! A direct e-mail sent to that person usually produces a more in-depth and focused answer. That person may have found additional related information since his original posting.

If nothing shows up in the archive search, then post the details of your situation on the reflector. Putting a good description of the problem in the posting's subject line is a key to getting answers. In the body of your message, let the reader know you have searched the archives and not found the same problem or a problem with the similar symptoms.

After the problem has been found and seems to be a new one (at least to me), the information on the problem and what was done to fix it is put on the appropriate reflector. This lets others know what occurred, the symptoms and the fix for the problem along with a request for any advice on how to beef up the fixed area so the problem doesn't again occur.

The use of the reflectors allows one to get advice from the most knowledgeable people in these fields. And for Free! What a good deal the reflectors are for keeping the older equipment on the air.

Good luck!

GOALS FOR THE 2007-8 CONTEST SEASON

from Paul, K3STX: "My goal for the upcoming contest season is to manage more time in the chair during the major CW contests and to make at least 500 Q's in SS SSB. Now that I have a small amp, I hope to spend more time running (especially in the domestic contests) than I did last year."

from Jay, AJ1M: "My goals for the upcoming contest season are pretty simple. I would like to keep improving on my scores, spend more time in the chair (wouldn't we all), and be active in a few more contests.

(continued on the next page)

GOALS FOR THE SEASON (cont.,)

from Jay, AJ1M (cont.,) " I had two additional goals for the upcoming contest season. Goal #1 was to get some kind of antenna to be able to receive better on 160M. Goal #2 was to either increase the height of by small beam or find some other way to become more effective.

"I've actually built a K9AY loop that has now allowed me to work several new countries on 160M in the past few weeks. I was not able to get the beam any higher at this time. I settled for now on using a dipole at about 50ft (30ft higher than the beam), which although it lacks the f/b, it does seem to both hear and transmit more effectively on 20M."

from Peter, W2CDO: "Successfully upgraded the station ergonomics, added a few more radials under the 80m inverted L, added a bunch of radials to the Butternut, which should help my signal on 10.

Finally repaired the Beverage (critters chewed through the RG-6). Maybe I can get a 15 meter half square up under the 20 meter one, though don't think 15 will be worth much this season... so maybe I'll stay with the vertical for 15 one more year. Thinking about bringing the tree guy back out to help hang a polar-facing half square for 20 and maybe a polar-facing dipole for 40. Maybe not. Maybe just do 40 meters only for DX contests this year. Maybe work on a multi team instead. Once again, focus on SS. Health may require me do SS as a multiop since the sciatica in my hips makes sitting in one place for any length of time really painful. If I could figure out what to do, I would be more successful executing."

from Glenn, K3SWZ: "My main goal was to get more radials down under the 160M Inverted L, which I did! I now have 3500 ft. of radials in place...Surprising thing was that I put the new ones down in the summer and they are already swallowed up by the grass!! Sod staples are a great invention, but the people at the local garden center think I am nuts! Maybe I am??? I also spent some time on a "common point ground system" for the 160M RX antennas. That is also in place. I want to get at least 2 more RX antennas up before it gets cooler...

from Jim, K4QPL: "I hoped to get a 40M wire beam NE and elevate the existing West one and rework my beverages for the the 2007-8 contest season. Also participate in Summer contests to refresh my skills.

I've done nothing so far except try to avoid the heat and drought by spending as much non-working time as possible at the coast. (Maybe some things can still be done before SS.)

My goal(s) for the upcoming contest season are.... Spend more time in the chair and try to better last year.

As the old saying goes, "The road to low scores is paved with good intentions!"

Qualifying for the 2010 WRTC

-- Jamie NS3T

If you are at all interested in participating in the 2010 World Radiosport Team Championships, you probably cannot ignore the big set of contests that start with the CQWW DX SSB at the end of October.

November includes three qualifiers, the SSB and CW versions of the Novmeber Sweepstakes and the CQWW DX CW Contest after Thanksgiving.

The Russian qualifying process has split the United States into four different regions. NA #1 includes W1, W2, W3 and the following states in W4: VA, NC, SC, GA, FL.

Some of our PVRC members in West Virginia are included in NA #2, which is composed of W8, W9 and the rest of the W4 states (AL, TN, KY.)

One very important note is that single band and QRP entries do not qualify for any WRTC points.

Basically, single operator high power entries get the most weight, while multis, assisted and low power scores are reduced by a special formula.

I have posted a full review of the rules and more on my contesting web site at
http://www.radio-sport.net/wrtc_qualify.htm

So far, there are results in for nine different qualifying contests and it shows several highly ranked PVRC members in NA #1. PVRCers Ken Claerbout K4ZW is in 5th place; Mark Bailey KD4D is in 7th; Howie Hoyt N4AF is 11th and Rich DiDonna is in 14th. (I'm in 395th place!)

The top three finishers in NA #1 will qualify as team leaders and then will get to choose a teammate for the 2010 competition.

A rundown of all the US standings is available, along with spreadsheets at
http://www.radio-sport.net/wrtc_ranks.htm

The CQWW contests have been given the most weight by the Russian sponsors, so if you want to have any chance of getting to Moscow in 2010, don't ignore your radios in late October and November!

RUST BULLET

-- Dave, W4JVN

There is a new product worth knowing about. It's called Rust Bullet. It's a good protective paint protection for rust and rusty metal items like towers and hardware, metal roofs, iron railings, restore old rusty cars, etc.

When using it, don't get it on your hands. It does not wash off with anything. It wears off. One needs to wear gloves when using it. It can be applied over clean metal or rusty metal where most rust is scraped off. It can be painted on rust .

Details and pricing can be found on the web site www.rustbullet.com

SIMULATING DXPEDITION CONDITIONS: THE STORY OF K3B

-- Jim, WX3B

Running pileups is a necessary skill for daylight operation at most contest stations, and it really comes into play when you pick a good location (say…V26B) to operate from.

Brian, N3OC has been the team leader of V26B's (Team Antigua) yearly DX-Pedition and vacation for the CQWW SSB contest in October for the past few years. It is a tradition to get together at his house and make sure our computers are going to cooperate and play nicely in a networked environment, have sound boards working (or at least know up front to bring a voice keyer!) and in general, get psyched up about our upcoming DX-Pedition.

This year, we added a new twist – a special event call sign, K3B, in celebration of the upcoming fall contest season and promotion of our trip to V26B.

Obtaining K3B

Several logistical arrangements have to be made to obtain a special call sign; however the process is entirely electronic and administered by the ARRL (Perry Green, WY1O).

A special web site for the National Conference of Volunteer Examiners (NCVEC) has the request form at: http://www.ncvec.org/1x1_request_form.php and the rules for requesting a special call sign are explained.

We also updated QRZ.COM to temporarily contain an entry for our event – explaining what it was, who was participating, and of course proudly displaying the V26B Antigua flag as a symbolic gesture of our enthusiasm for the event. Since I was the chosen QSL manager, I also updated my own qrz.com and wx3b.com pages.

K3B: On the Air

We turned on N3OC's Yaesu ft-1000d, an alpha amplifier, and pointed his 3/3 stack (50/100 feet) at Europe during the later part of the afternoon.

It took about 5 CQs to get the pileup stared…and we were off and running. The sustained rate averaged 150 QSOs/hour – a pretty good clip for just having fun. N3OC and W2BZR did most of the running, and they put about 500 QSOs in the log in several hours.

Everybody had a blast! If you haven't tried one of these special calls, it's a great way to

Become the center of attention….in hurry – and get some pileup practice. It's about as good as it gets….without being 'real' DX.

We'll be listening for you…soon enough….at V26B.

73 & good luck in the contest.

Brian, N3OC, operating K3B

1940'S MOVIE SHORT ABOUT HAM RADIO ON YOUTUBE.COM

-- Ron W8RJL

If you have a broadband internet connection, check out this *Pete Smith Specialty* from the 1940's:

http://www.youtube.com/watch?v=vBGIdf0VjQ4

For those who've never heard of them, *Pete Smith Specialties* were short subject films produced and narrated by MGM publicist and film producer Pete Smith from 1931 to 1955. The Smith shorts – he produced more than 150 of them -- were typically 9 to 11 minutes long, shot in black-and-white, with many of the laughs generated by the highly ironic voice-over narration delivered by Smith himself.

Typical of the day, they were made as filler material for MGM's cinema exhibition packages, which typically consisted of a feature film, a B-movie or a serial, plus one or two "short subjects" of various types, such as animated cartoons, newsreels and documentaries.

THE TOOLBOX A COLLECTION OF WORKSHOP TIPS

-- Don Daso K4ZA

The average ham or electronics experimenter usually has a plethora of tips and techniques, some of which save time, some are safety oriented, and some are simply clever ideas or solutions to workshop problems. Here are some I've collected.

Many of us have what's sometimes called a "suicide cord," enabling us to power on a device with an odd or uncommon or missing power plug or cable. For most of us, it's simply an AC cord equipped with alligator clips. But, let's build one with some simple safety precautions—saving you from embarrassment or worse. Begin by installing a suitably rated fuse in the line, preferably a fast-blow type. In my opinion, the only clips to use are Mueller #60 alligator clips, and I always use the matching #62 rubber clip covers. A suitable fuse holder (in-line) is even available at Radio Shack (or was, once); it's part # 270-1281.

The metal working ham often finds slick and clever solutions to problems. Here are a few worth considering:

De-burring holes is sometimes an issue. Many folks don't realize that a drill bit that's at least three times the existing hole diameter will work very easily. A drill press ensures accurate and level placement. Use a sharp bit and high speed when working with soft or brittle materials, such as brass and plastics. Or, a standard counter-sink bit will also work well—just don't go too far into the metal you want to de-burr.

Greenlee chassis punches are the tool of choice for many builders. But sometimes, especially when working with rack panels (1/8-inch material), you can actually break the punch. Here's a clever workaround: first, center punch and drill a starter hole, then drill it to the size of the punch's drive screw. Insert the screw and rotate the cutter around the panel by hand, scribing a line on the surface. Draw a dividing line through that circle, and then drill two small holes inside the circle, so that the edges of those holes just touch the circle. Put the punch cutter on these pilot holes and you'll find it will now act like a shear, instead of a punch.

If you've ever stripped or broken the pilot bolt on the punch itself, you can order replacement parts from Greenlee. But it's faster to simply substitute a Grade 8 bolt, available from numerous sources. You won't have as fine control (NF vs NC threads), but you'll be using the punch instead of waiting for parts.

The common hacksaw is another one of those tools that's often taken for granted—tossed in the drawer, totally forgotten until needed, and then often used incorrectly.

Whenever using your hacksaw, you should use a blade that has at least two teeth in contact with the surface of metal all the time. Too many teeth restrict chip clearance and will slow down cutting. Hacksaw blades have asymmetrical teeth, which means they only cut in the forward direction. So, here's the single most common mistake: Only use a full, medium speed stroke. (The idea is to use the entire blade for each cut. Harder work will take longer than softer cuts.) Short or fast choppy strokes will heat the blade, so that it will invariably bend, leading to breaking. How fast is too fast? One stroke per second works fine. A drop of oil will always help. As will using a triangular bladed file to mark and start your cutting point. And please, keep the frame (and therefore the blade) tight, and free from bends!

So the other day, I'm over at the local scrap yard picking up some material for an up-coming job, and I stop in the machine shop nearby to ask the owner a question. He's working steel on his drill press while we're chatting. As he squirts some lube on the work, I am pretty sure it's antifreeze, so I ask. Sure enough. "It's a great, cheap lubricant," he tells me. Later than afternoon, I pour some into an old mustard bottle (they make swell squeeze bottles, but the labels seemingly never wear off), and yay verily I say unto you, the stuff *does* work great. Long, satisfying curls of steel swirl up and out of the work.

As a long-time advocate of Rustoleum's Rusty Metal Primer (*just love that red!)*, I admit that getting the lids of the spray cans is sometimes a bit difficult. Here's a trick: cut the grip ring with your sidecutters. Problem solved!

I'm always telling folks to care for their tools—especially edged or cutting tools.

Files, end mills, and the like, often simply get dumped into drawers or toolboxes, where they're subjected to banging around, or worse. Simply wrapping the cutting surfaces with ordinary aluminum kitchen-foil will prevent damage. The foil is soft enough to conform easily to any surface, yet durable enough to hold its shape and stay in place.

Having written (and published) articles on soldering, I was confident I knew one or two things. I do. But it's the three or four *more* things I learned from the Weller blog that were most interesting! Like why you can't simply file or re-shape your soldering iron tip. It's an interesting read; check it out. http://weller.blog.com/1840284/

And finally…while wandering around a friend's workshop the other day, it occurred to me he did not have a fire extinguisher. "I know I should get one," he said when I inquired. And he's right. This simple fact is it's incredibly dangerous to do just about any sort of DIY work (especially woodworking or metalworking) without having some way to put out a fire, close at hand. If you're curious, do the research on the Internet, or just head over to your local home improvement emporium, pick up a Class A, B or C unit—you'll be well ahead of the game. Mount it on the wall (do not hide it in a closet or cabinet or under some shelf), in a conspicuous spot where a fire is unlikely—not next to your workbench.

It would be bad if you couldn't get to the extinguisher because it was ON FIRE!

UPCOMING HAMFESTS

October 7

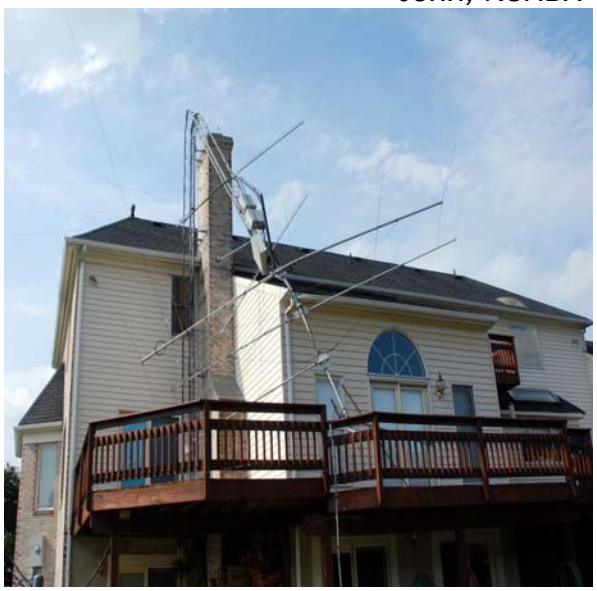
Columbia Amateur Radio Association is holding its annual hamfest from 8:00 am until 4:00 pm at the Howard County Fairgrounds. License exams will be given. For more information please click http://www.carafest.org

October 28

The Carroll County Amateur Radio Club will be holding its annual Mason-Dixon Hamfest at the Carroll County Agricultural Center. There will be a seminar entitled "Getting Started with Software Defined Radio". License exams will be given. For more information please click http://www.qis.net/~k3pzn/mdhfest.htm

WELCOME HOME!

-- John, N3HBX



This picture shows what greeted us on our return from a trip to Russia on August 26 - apparently two days after high winds had hit parts of Clarksburg MD. The tower was 50 feet of Rohn 25G, of which the lower 30 feet were securely bracketed to the masonry chimney. It buckled just above the topmost bracket.

The tower supported a 20 foot hardened steel mast of which 15 feet were exposed. These 15 feet of mast supported M2 antennas for 6, 2, 1.25 and 0.7 meters (6M7-JVH, 2M-5WL, 222-7WL, 432-9WL) and two Directive Systems 2355LY antennas for 23 cm. The latter were attached to a large fiberglass frame resembling an inverted U. Adding to the wind loading were three sizable metal boxes near the top of the tower housing relays, preamps, the 23 cm. PA and its PS. Obviously, I was "stretching the envelope" (as Dave K1RZ kindly put it), but had gotten away with it for quite a while. Of course, the tower would have to fall on the roof - damaging it and letting water into the living room and basement.....

NEWEST BESTEST RADIAL MATERIAL EVER!

-- Dave, K1TTT

I just found the newest bestest radial material I have ever used! And over the years I have used a lot of them. It ain't cheap, but at this point in the 80m 4-square project that doesn't much matter any more.

It is Alloy 1100 Aluminum Wire .125" Diameter(just under 8ga), 12-lb Coil, 792' Coil, McMaster-Carr part number 8866k15. They sell it for $150 and its enough for 12 radials for 80m. it comes with a tag from www.malinco.com, they don't seem to have an on-line order system so probably only deal in big quantities.

If you want something a bit cheaper they have 2016' coils of .080 (about 12ga) for $146.

This stuff comes in a coil, which kind of worried me a bit until I cut off the tie wraps and it just sat there... no spring to it at all. It is easy to cut with small wire cutters, and easy to hand wrap around bolts and itself to make eyes. It can also be uncoiled and doesn't get kinked, you don't have to roll it out like Copperweld or other stiffer wires. I found it easiest to just stick the coil over one arm and uncoil it as I walked from vertical to vertical to connect them up.

Btw, even with just the radials connected around the square this new 4-square is MUCH better than the old hanging around a tower. I can take an S9+ VE3 and make them disappear off the back.

MARINE CORPS MARATHON

The annual Marine Corps Marathon, the fifth largest in the world, will be held on Sunday October 28. Over 120 operators are needed for this premier area event making full use of amateur radio, digital through voice. While the majority of the event is within the Maryland-D.C. ARRL Section, only about 15% of the amateur radio participants who help are from the section. This is an excellent training opportunity for emergency communications.

Sign up to volunteer either from the Maryland-DC section website www.arrl-mdc.net, or click on www.ncacdc.com

There will be a briefing at the Armed Forces Retirement Home in Washington D.C. on October 20 so that everyone will know what is expected of them.

FOUNDATION FOR AMATEUR RADIO/ARRL MDC SECTION CONVENTION

On Sunday, November 11, the Foundation for Amateur Radio will sponsor the MDC Section Convention. It is being hosted by the Armed Forces Retirement Home Amateur Radio Club and will be held in their movie theater. There will be an explanation of many digital modes from 10 am to 12 noon.

An online registration form will soon be posted the section website, www.arrl-dc.net

P41USA SEPTEMBER 11 OPERATION FROM ARUBA

-- Bob, P49T/W3BTX and Roy, P4/W3TEF

Although the sunspots were low (Note: low sunspots don't really count in Aruba hi...hi...) we still worked a lot of Q's & countries. The primary daylight band was 20 meters world-wide & at night. It was a tossup between 40 & 80 Meters during the dark hours. Europe & Middle East was always pounding in on 40 & 80 Meters at night. We were also able to work into JA land & SE Asia every morning starting around 11:00Z on 160M & going to 80 & 40 Meters (mostly CW).

No rig problems on this trip & we were also able to replace the old 6 Meter beam with a new one. On 6 we did work some locals, KP4 and into LU on TE, but never a whisper out of the USA. Unfortunately even Aruba needs sunspots on 6 Meters to be effective. This is most likely a 1-shot deal, because we had to jump through a lot of hoops to get the special P41 call, but who knows...it may open some doors for a future operation. FYI: Aruba is the only country in North America that doesn't recognize the CEPT license.

I know that we worked several PVRC Members, while a lot of others knew about the PVRC.

A reminder: ALL QSL's GO TO W3TEF

An Update...

Well, we made it back from ARUBA & had a great time operating as **P41USA.**

We worked over 4,000 contacts, made DXCC, WAC and WAS from the operation. We operated 160 through 2 Meters and had QSO's on all bands.

UPCOMING PVRC EVENTS

Tuesday, October 9 at Capitol College:
Jim Brown, K9YC, reknowed audio expert and RFI Guru

Thursday, October 18 Downtown Lunch:
Kristen Haring, author of "Ham Radio's Technical Culture"

SOME COMMENTS ON W4RX'S ARTICLE "THOUGHTS ON AIMING BEVERAGE ANTENNAS"

-- Bill,. W4ZV

Just a comment on W4RX's article "THOUGHTS ON AIMING BEVERAGE ANTENNAS" While I agree with Jim's general concept regarding optimizing S/N, it is somewhat incomplete due to auroral skewing effects on 160 and 80. I use EU Beverages at 10, 40 and 70 degrees. In my experience from both NC and CO, my best EU antenna is often 70 degrees due to southward skewing. The 10 degree antenna is almost never better to EU except for a few high latitude areas, and then only in very quiet geomagnetic conditions. Under extreme aurora (K=8), I have seen skewing as much as 90 degrees from the true direction.

Jim's idea is valid, but in my experience it applies better to paths that are more likely to have high equatorial QRN. For example, when FT5XO (~130 deg true) was active, we had a very protracted period of nightly QRN from the south (over FL which is very common). Although my 140 degree Beverage was close to the direct path to FT5XO, my best direction for S/N was using
one at 105 degrees (toward ZS). As Jim describes, this direction rejected more of the QRN to the south without rejecting as much of the FT5 signal, so the resulting S/N was better.

Given the variability in auroral skewing and QRN sources (both natural and manmade), you really need a complete array of Beverages to choose from to optimize S/N under any situation.

AUDIO ITEMS ON SPUTNIK FROM NPR:

Weekend Edition Sunday (Sept 30, 2007)
Space Race Permeated Pop Culture
http://www.npr.org/templates/story/story.php?storyId=14845436

News Analysis: Remembering Sputnik by Daniel Shorr
http://www.npr.org/templates/story/story.php?storyId=14841107

Sputnik: The Shock of the Century' Interview with Author Paul Dickson
http://www.npr.org/templates/story/story.php?storyId=14841104

All Things Considered (Sept 30, 2007)
Sputnik Left Legacy for U.S. Science Education
www.npr.org/templates/story/story.php?storyId=14829195

Weekend Edition Saturday (Sept 29, 2007)
Khrushchev, Schorr Look Back on Sputnik
http://www.npr.org/templates/story/story.php?storyId=14829415

Talk of the Nation (Sept 28, 2007: 45 min)
Sputnik I, the First Satellite to Orbit Earth, Turns 50
http://www.npr.org/templates/story/story.php?storyId=14799200

All Things Considered: (Oct 4, 2002)
Walter Cronkite: How Sputnik Changed the World
http://www.npr.org/templates/story/story.php?storyId=1151147

All Things Considered (Oct 4, 1999)
Sputnik Anniversary
http://www.npr.org/templates/story/story.php?storyId=1064887

All Things Considered (Oct 1, 1998)
Sputnik Satellite Inspired Congress to Create NASA
http://www.npr.org/templates/story/story.php?storyId=1033054

Talk of the Nation (Oct 3, 1997: 1 hr.)
SPUTNIK
http://www.npr.org/templates/story/story.php?storyId=1010850

All Things Considered (Oct 4, 1987)
Igor Kripinov: I Remember Sputnik
http://www.npr.org/templates/story/story.php?storyId=4462087

SPUTNIK HISTORICAL INFORMATION

Sputnik-1
http://nssdc.gsfc.nasa.gov/database/MasterCatalog?sc=1957-001B

Sounds of Sputnik
http://nssdc.gsfc.nasa.gov/sound/sputnik.wav

Full-scale replica at the National Air & Space Museum
http://www.nasm.si.edu/exhibitions/gal100/sputnikclsup.jpg

Korolev, Sputnik, and The International Geophysical Year
http://www.hq.nasa.gov/office/pao/History/sputnik/siddiqi.html

Thrills of the Earliest Days
http://www.svengrahn.pp.se/trackind/getstart/oldcyts.htm

Geoff Perry's radio work with his students at the Kettering (UK) School was highlighted in a "NOVA" television documentary, "The Schoolboys Who Cracked The Soviet Secret", which first aired in December 1989. The group continued to operate after Mr. Perry's retirement from teaching in 1984. Perry and his associates published numerous reports in the Journal of the British Interplanetary Society and in US government publications as well.

DID YOU HEAR SPUTNIK?

from 73 Jim W3CP: "My W3CPB logbook has a note for 7 Oct. 1957: "20.03 mc heard Russian satellite at 0305 GMT for about 5 min" and "20.006 mc heard from 2318 to 2330 GMT."

The accuracy of those frequencies is uncertain since for receiving I was using a surplus RAX. I had the orbital data as I was working at NRL.

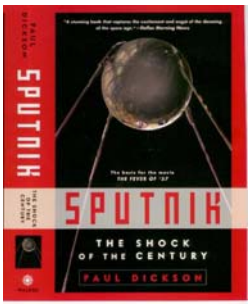
From Chuck, W4XP: "Not only do I remember listening to Sputnik 1, even though I was too young to understand the significance, but Sputnik II about a year later (at least I was told it was Sputnik 2). I also remember sitting in the ham shack of my Friend Terry Perrault, WA6MVV (SK), not very many years later, listening to OSCAR-1's HI.

from Bob, W9GE**: "**We listened to Sputnik on my dads Hallicrafters S20R. Amazing how far we have come technologically and politically since that day. You must be a bit older...I was to young for chem in 1957. But not too old to have Polio that year. Remember that stuff?

From Ron W8RJL: "How many of you actually heard Sputnik live? I sure did.

I was standing in my grandmother's kitchen when I heard the first news flash about the Russians launching Sputnik. I'll never forget that day. The announcer told the orbital speed (unbelievable) and described a satellite but there was no telemetry audio broadcast at that time. Somewhere I read about the telemetry frequency (near the 15 meter band) so I turned on my Hallicrafter S-76 and using my home brew 15 meter 2 element Yagi heard Sputnik come over the horizon, pass over, and die away.

Wow what an experience!!! I got out the tape recorder and made a tape which I gave to WCHI the local radio station plus I took my recorder to high school so everyone in my chemistry class could listen to it. One of my classmate's father was a photographer for the local newspaper. She told her dad about the tape and soon after I made the front page of the Chillicothe Ohio with a photo of my station. It was a good plug for ham radio.



Sputnik: The Shock of the Century
By Paul Dickson

A Review and Reminiscence
by Bob Teitel, W3IDT

This month is the 50th anniversary of the launching of Sputnik, and it is being written about most everywhere. Both October issues of QST and CQ have articles, as did the Washington Post "Book Review". Mr. Dickson is a local author – he lives in Garrett Part (Montgomery County, MD) - and has written well over 20 books since 1970. Most of his other books appear to be about labor force issues, words and language, and baseball.

Although "Shock of the Century" somewhat overstates its importance to American society, it provides an excellent review of the "shock" of Sputnik, Pearl Harbor and the 1929 stock market crash, which, in my opinion, are the pivotal events of the 20th century

The launch of Sputnik was, however, a pretty important event for individual hams and the amateur community at large. The US had built a series of satellite tacking stations to monitor its own impending satellites and those of the Russians. The tracking stations were apparently equipped only with VHF/UHF radios. Sputnik used frequencies near 20 and 40 Hz. Hence, the military formally requested help from amateurs, "… got in touch with the American Radio Relay League… asking its 70,000 members - all "ham" radio operators – to lend a hand and help track the Sputnik. In less than 24 hours reports were coming in to the National Science Foundation…" (p.13). It would have been nice, if in his discussion of Sputnik's legacy, Mr. Dickson could have mentioned that, in addition to multitude of commercial and military satellites since Sputnik, the amateur community has had its own series of satellites launched.

I was a senior at the Bronx High School of Science (and K2YMZ) at the time> With two friends, I tape recorded and "analyzed" the signal – meaning that we looked at it with an oscilloscope. That was enough to get us on one of these ridiculously early (say, 8:00 am) Saturday morning TV shows. That led to an interview with a reporter and a third or a half page story in the Journal American (a New York newspaper no longer being published).

The principal effect of the launch of Sputnik was the perception of American society being somewhere between "just behind" to "hopelessly behind" the Russians in technical education and engineering and, for those old enough to remember, "the missile gap" became a major campaign issue in 1960.

America poured enormous amounts of money into improving education, especially in the sciences and engineering, and clearly caught up with the moon landing in 1969. Then perhaps, we became somewhat complacent – to be "shocked' once again with the launching of the initial Russian space station, MIR (which means peace in Russian).

American interest in the sciences and engineering seems to go in cycles: We let things drift and seem to fall behind, do extremely well during a catch-up phase, then let things drift again. Interestingly, we are currently going through another cycle of examining our educational system – this time mostly in the lower grades - in the context of the "No Child Left Behind" statutory mandate.

Apparently basing his work on recently declassified material, Mr. Dickson notes that the Japanese kamikaze planes (and the 9/11 crazies) were not the only ones to use airplanes as bombs. The US military did as well during WW II, especially in attempts to wipe out the German rocket design and construction site on Peenemunde Island, with a major distinction, though: The pilots were not on suicide missions. Bombers loaded with explosives would take off with pilots at the controls. Once in the air, the pilots would bail out, and the rest of the flight to the intended target was remotely controlled by an early version of AWACS.

According to author's research, President Kennedy's older brother, Joseph Kennedy Jr. – whose death has always been described as "while on a classified mission" – died in an accidental explosion of one of these bombers. Of course, had these bombing raids been successful, we would not have been able to obtain Mr. von Braun's teams services (nor the V2 spare parts used in most of our early rocket experiments).

Mr. Dickson also points out that President Eisenhower remained extremely cool, while most other elected and appointed officials went into a "what happened" frenzy upon the launch of Sputnik . Eisenhower had recently promoted his "open skies" proposal – to the effect that space was not to become a firing zone. If he allowed Sputnik to over-fly US territory without protest, nor attempt to shoot it down, the principal of his proposal will become an international precedent.

I like the organization of the book. It starts with a review of the launch and the immediate aftershock, then proceeds to a history of the three principal visionaries in modern rocketry: a Russian, a German, and an American (Robert Goddard), and the practical application by another German (Werner von Braun), followed by a detailed history of the turf war battles between the military service (and later NASA) over control of both military missiles and civilian rockets.

WHERE CAN YOU FIND PVRC MEMBERS?

- ***The PVRC NW Region***

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.

73, Bud W3LL

- ***The Annapolis Crew***

Meetings are held on the 4th Wednesday of each month at Griffens West 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.

73 Bob W9GE

- ***PVRCNC-East***

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

73, Jim, K4QPL

- ***PVRC-NC/West***

"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 <w4ws.org>.

73 de tom n4ioz

- ***Gaithersburg Area***

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.

73, Jeff Embry, K3OQ

- ***Central Virginia Contest Club***

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 7PM in the Hospital cafeteria located on the first floor.

Vy 73, Ed NW4V

- ***Over the Hill Bunch***

The group meets for lunch at noon alternately in Maryland at the College PARK Holiday Hotel Route 1and 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.

73 Bill, W3AZ

- ***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 contact information to W3DQ for inclusion in the Newsletter!

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W4ML: telnet://dxc.w4ml.net
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N3RR Rockville MD	145.510 441.325
W3TOM Accokeek MD	145.770
N4OHE Mt.Weather VA	145.710 446.025
NE3H Harrisburg PA	145.630
N4SR Woodbridge VA	145.630
N2QT Lynchburg, VA	145.59, 144.97, 446.075

Ham Radio's Technical Culture
by Kristen Haring
(MIT Press, December, 2006, ISBN 0262083558)

A review by Miriam Teitel, K3MIM

This book offers a cultural history of Amateur Radio which stresses the closely intertwined relationship between its members and the technology intrinsic to the pastime. With extensive documentation from contemporary sources, the book describes both the characteristics prized within the community along with the public perception of its members in the wider context of American culture.

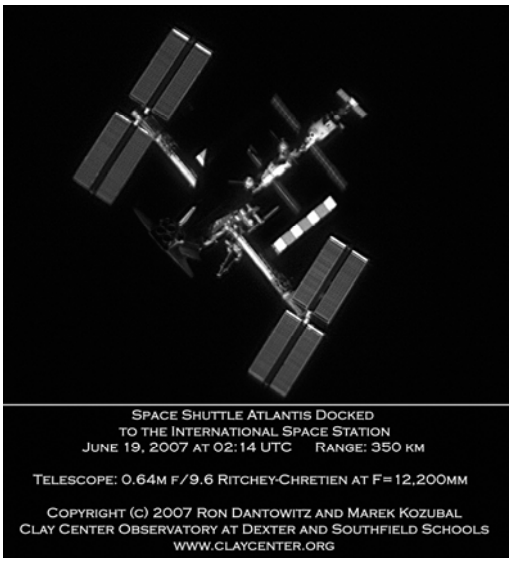
Haring links many positive qualities with the community, including technical mastery as well as the internal promotion of "Qualities of the True Amateur" exemplifying the frequent self governance of a moral code. Use of morse code and specialized vocabulary contributes to the sense of membership in a limited and exclusive society. Technical knowledge gained through the hobby then also reflects back value to the members. She portrays very positively an affiliation valued by its members and well respected by the world at large.

However, I found somewhat less compelling the case put forth that a culture of masculinity was stressed by the importance of many of these characteristics. The examples of advertisements and columns provided fascinating looks at contemporary attitudes, but since there is little doubt that the hobby was (and is) overwhelmingly male dominated, the emphasis on stressing how it was promoted seemed to be less necessary. Haring does cite several noteworthy examples where women who were involved with the community seemed to overemphasize their femininity as a response, but I was left wanting to see more contemporary accounts from women.

Portrayed as more fluid than internal attributes of members were the swings in public perception of this community; from the almost exclusive holders of technical knowledge, to potential whiffs of espionage, to today's lessoning exclusivity. Haring notes that while the military prized hams' knowledge during the vast communication needs of WWII, the cold war era had simultaneously seemingly contradictory effects – hams were seen as technical leaders, but also incurred suspicions because of their abilities with those technologies to communicate throughout the world. It was even noted that in addition to cutting postal costs, QSL card centralization reduced local scrutiny of those foreign messages! Knowing their activities could potentially raise questions or even suspicions of their rights to equipment and capabilities, powerful PR campaigns for decades stressed the potential for civic services in times of emergency. Finally, today, with increasing globalization and widespread internet allowing many more of the general public to quickly communicate worldwide, there is perhaps less notice, but also less reverence.

Haring suggests that changes in costs and availability of equipment have led to a dramatic shift from an expectation of build-your-own to one of buy-it-now (at least in terms of mainstream transceivers; for example, there is no discussion of antenna design or construction). Also included are interesting brief histories of some of the major equipment manufacturers. As the early proponents of the hobby stressed the significance of the participatory nature of the technical requirements, and even the moral value therein, concern arises as equipment became more "black box" and less commonly tweaked by the user; no longer can advocates applaud the "technical and moral training that came from equipment construction" (72). But while the dramatic technical changes may serve as a potential threat, there is widespread embracing of the new opportunities such technologies have provided , while concurrently the nostalgia of vintage equipment has enjoyed something of a resurgence. Indeed it seems the new possibilities have only broadened the scope of a community where, as Haring describes in the opening pages, "hobbyists are deeply engaged with technology even if they keep their hands outside of machines" - still very much a "technical culture" (3).

Haring provides a fascinating account of the history of this culture, well aided by the wide-ranging contemporary examples of text and art cited and displayed throughout the book. Though as noted there is a wealth of such material available, I wished for the addition of oral history, to provide more personal accounts of the momentous events and changes described. However, the book serves as a enlightening introduction for those of us who didn't experience it first hand as well as for non-members.



Ham Radio's Technical Culture
by Kristen Haring

A review by Steve Bonk, W3OU

First off, this is definitely not a book published by the ARRL or CQ or written by a Bill Orr or John Devoldere. There is not a schematic or antenna pattern to be found, and the author doesn't even have a call sign. It does present the cultural aspects of ham radio during the period of the 1930s through the 1970s. The sources used are magazines, club newsletters, catalogs, and other written material, rather than interviews with hams and others involved with the hobby. This is a valid approach used by researchers since memories can become clouded.

The 1930s are used as a starting point, since radio moved from the realm of experimentation to widespread acceptance as evidenced by the establishment of the broadcasting industry and the millions of receivers in use. The author places ham radio in the context of other technical hobbies which require specialized skill and knowledge such as photography and model aircraft. It's interesting to note that Hiram Percy Maxim also established the Amateur Cinema League, which he modeled after the ARRL.

The author being a historian, woman, and non-ham gives a view of ham radio which stresses the masculine nature of the hobby and its interaction with females to the point of showing methods of exclusion. There are some of the comical stereotypical incidents described, such as the ham pulling up to a remote spot with a female companion and turning on the mobile rig, or a ham bring a group to his bedroom ham shack and the equipment being the center of attention and the wife ignored. Some of the equipment ads shown have the message that the way to a hams heart is with a new piece of gear, or how equipment is civilized to the point that it can be allowed in the living quarters. The ham shack is portrayed as a refuge away from the family and community, although a useful tool for bonding with sons. The implied homosexuality of the hobby is touched upon with period ads and interactions between hams. The ham club structure is shown as an extension of other fraternal men's clubs. Some of the more rowdy away from home escapades with females at gatherings such as Fresno are also described through club newsletters.

The mutual attraction of hams and the electronics industry is shown by a number of quotes and period adds on the recruitment of hams for their technical skills along with the numbers of hams in technical professions. Hams are portrayed as target market, not only for ham equipment, but by the electronics industry to gain acceptance of their products by hams, and to carry the brand loyalty to their employment.

Although the skills of hams were sought after by the military and defense industries during World War II and the Cold War, the book points out another side of ham radio which I have not seen in print before. This is the threat posed by hams in having the skills and equipment which enabled them to be in direct contact with the enemies of the United States, which led to some of the regulation of ham radio.

The book concludes in the 1970s based upon a number of changes which impacted and changed the hobby. CB radio provided radio communications to the masses without an exam and at low cost. The fuel crisis of the 70s provided a boon to CB's popularity. Advancements in electronics, such as the microchip, ended the age of wide spread home built and kit built equipment. The death of Heathkit is used as an example of this change. The advent of personal computers is another change affecting ham radio in the 70s. Haring acknowledges the early acceptance and contributions to the early PC movement such as Wayne Green's founding of Byte magazine and the involvement of hams in the early personal computer clubs. The 70s are not shown as the end of ham radio, since it is pointed out that the number of licenses has increased since then, just a change.

This is a book that is on a different path than most of the ham radio literature and I'm sure every PVRC member will be able to personally relate to multiple sections of this book.

EDITOR'S NOTE:

Author Kristen Haring is our featured speaker at the October 19th downtown lunch meeting. ***Her book Ham Radio's Technical Culture*** *(MIT Press, December, 2006, ISBN 0262083558) is available from amazon.com and at some local booksellers.*

The October 19th luncheon meeting is being held at the offices of Wiley Rein LLP, 1750 K Street, NW (5th floor). We will have drinks, snacks, and pizza served. Expect the final cost to be in the $5.00 to $7.00 range ..

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