Potomac Valley Radio Club Newsletter
September 2007 Edition

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The PVRC Central Region Kickoff Meeting
Monday, September 10th

FROM THE PRESIDENT *-- Jim, WX3B*

I hope everyone had an enjoyable summer and that as I am, you are looking forward to the upcoming contesting season. Next in line is the Worked All Europe (WAE) SSB contest on September 8 and 9. This contest is generally well attended and is an excellent warm-up for the CQWW contest in October.

The first PVRC Central meeting of the new season, led by PVRC VP Mark, KD4D takes place on Monday, September 10th, at Topolinos in Temple Hills, MD.

This is an important meeting: We will be discussing the 2007 – 2008 proposed slate of officers, as well as opening up the floor for nominations for officer and potential trustee appointments.

In the years I have served PVRC, I find it humorous that as competitive a group as we are, there has never been any competition or "contest" for club executives!

Topic #2, of course will be a familiar one, the 2007 ARRL Sweepstakes and our plan to win the Unlimited Club competition. I've had brief conversations with the motivational forces behind SMC, NCCC and YCCC – and it appears that it's going to come down to NCCC vs. PVRC again this year.

Winning this contest is a matter of the raw number of active operators. Historically, the club with the most entries wins. So while it's nice to see some young man hammer out 1,700 SSB QSOs with only one radio (remember who this is?), it also takes the massive (majority) group of you that hang in there for the 100, 200, 300, 400+ QSOs that create our tremendous club score.

If you have 100 watts, a wire antenna or a vertical, you can make a BIG difference in our club effort!

Finally, I'm happy to announce that the 2007 PVRC Holiday Dinner will be held on Monday evening, December 3rd, once again at P.J. Skidoos in Fairfax, VA.. Details will follow in the November Newsletter and on the PVRC reflector.

Please reserve the date if you think you can make it – there has generally been an attendance of about 70 – 80 folks at this popular function.

73 and see you in the 'tests!
Jim Nitzberg WX3B

EDITOR'S PREROGATIVE *-- Eric, W3DQ*

With the end of the summer upon us, it's time to think about the contesting season we're about to enter. With the temperatures cooling down and the humidity dropping, now's the time to finish (start?) those outdoor projects, be it fixing the antennas, laying radials and feedlines and generally "cleaning up the yard. As the calls come out for help from our fellow PVRC members, be generous with your time and expertise and help all of us prepare for the upcoming contest season.

To reiterate WX3B, the winning club is the one with the largest number of entrants. I'll repeat what I wrote last month: Mentor a fellow contester. Develop a small circle of nearby contesters you can count on to bounce ideas and projects off of and who can help you – and you can help – on short notice. We all benefit from your efforts

Finally, make note of our two special presentations coming up in October. On October 9th, renowned audio expert and RFI guru, Jim Brown, K9YC, will be making a presentation about audio and RFI at Capitol College. And on October 19th, 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. Seating is limited, so please RSVP quickly when the meeting notice comes out.

73, Eric Rosenberg, W3DQ

A VARIETY OF TAKES ON PROPAGATION and OPERATING: The BS7H DXpedition

It goes without saying that this past spring's BS7H operation generated a lot of interest and activity. It also prompted a lot of talk about propagation and operating styles. What follows is a large part of the discussion, with the hope that we can all learn from our fellow PVRCers.

From Fred, K3ZO:

Now that the BS7H 2007 DXpedition is history, I should acknowledge that I underestimated the ability of the 20 meter band to open early to that area. Most days BS7H could be heard on 20 by 1045Z and was as loud as they would get by 1110Z. I worked them on 20 CW at 1047Z.

It pays to listen carefully to what the operator sends. Operator 9V1YC would occasionally send something like "32" in a quick transmission where he gave only the two numbers and nothing else. These transmissions were separate from his "TU NA UP" or "W9XXX 599" type transmissions. The minute he sent "32" I went to 14032 and called. Only one other op figured it out, and he got him first, I got him next. Two calls and BS7H was in the log! After I worked him nobody else remained on 14032 calling him. There was still a big mess of callers in the area 026-030. Later he sent a quick "35" on three occasions and NOBODY took him up on it.

I had correctly stated in my predictions that on 40 meters the Grey Line would be good because the sunrise here and sunset there occurred within a few minutes of each other. The problem turned out to be that on most days the ops didn't come up on 40 until it was well past sunrise here. But on Friday morning they were there at the right time. I first heard them at 1010Z while beaming short path. I had been hearing JA's quite loud which is why I was beaming that way. BS7H was quite loud and very good copy on short path and I called them a couple of times that way. But the pile-up calling them was massive and when I heard West Coast powerhouses like W6KH calling them again and again I figured there was no way I could break through the West Coast curtain without some sort of "edge".

So I took my own advice and turned the beam on the grey line path. The band immediately became more noisy because I had to beam over some thunderstorms in the Southwest, but the important thing is that on the S-meter BS7H came up about 10 db from what they had been on the short path even though the copy might not have been quite as good. Then I tuned through the mass of callers to find an open spot and found one.

Three calls later BS7H came back to "K4ZO". I went back, gave my call again and a report, and the op came back "K3ZO TU NA UP". What a rush! That was at 1020Z. By 1025Z they had dropped 10 db on the grey line and were now loudest on the short path, so the Grey Line opening was very short and I had the good fortune to be there at the right time.

From Pete, N4ZR: I don't know about others, but I think the reason I missed those quick "32" or "37" messages was that I was listening to one VFO with each ear and trying to figure out where the op was listening. The 20CW op seemed very good, but on a couple of occasions when the 20SSB signal was really good, the rate was pathetic - only maybe doing 30 QSOs per hour. He didn't seem able to pick out any callsigns, and at one point, seemingly listening on another liaison frequency, the op even stood by for specific buddies.

The wide QSX bands are a very mixed blessing for those of us calling the DX, because it is very hard to figure out what's happening, particularly when people aren't spotting the spread. Makes it almost sheer luck, like on 30M where I got them on the second call with 50 watts to a badly mismatched 40M yagi.

From Bob, W9GE: Thanks in part to Fred's prop report I was fortunate to put BS7H in the log on Tuesday at about 1315Z on 20 cw. It took almost a full minute to get my call confirmed because of the incessant callers...but the op hung in there until all was well.

Once that was accomplished I spent all of my BS7 hunting time on 40 and 30 cw, to no avail I must admit. They came up on 40 well past our optimum as Fred has said, and I missed the Friday opening...I was frustrated and went to breakfast at the wrong time.

It was indeed difficult figure out a pattern. On my successful attempt I had discerned they were jumping up about 500 hz with each Q, and I was there and waiting a full 24 kc above his transmit freq to be successful. Never did figure out a pattern on 30 or 40 cw even with many hours of listening. I never heard the "hint" if there was one because I had my primary vfo on the hunt for his QSX frequency. Never worked so hard for a no contact. My hat is off to the ops and their struggles. I understand their noise level on 40 and 30 was horrible so anyone getting through there should feel blessed.

As for ssb, I never bothered to try.....I much dislike ssb pileups. At least on cw some of the ops are civil. Congratulations to those who worked them on more than one band/mode.

From Jim, W6NRJ: Fred, unlike you, I did not figure out the response freqs he was looking for on 20 CW.

However, I did hear a response "NRJ" "NRJ" to which I responded with my complete call, sending "W6 W6 W6NRJ 5NN" but the willful interference from Europe prohibited me hearing his response. I may have even worked a pretender wannabe instead of BS8H.

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BS7H PERSPECTIVES (continued)

(W6NRJ) That was Friday eve local time, 20 CW. On Sat afternoon the op was on 14185 with a good signal, but he was working "by the numbers" and worked up to 0 and skipped the 6 calls! He was barking out a freq range with his call. Just as the propagation was about to fade away, and after working all the way to), he called for 6! I was lucky to hear the 3rd 6 go back to him, pounced on his freq and screamed "Whiskey 6 November Radio Japan." BS8H came back to me using the same phonetics, so I hope to goodness I am in the log! What a rush after a week of struggles and hours of attempts.

Overall, this one almost soured me on chasing DXPeditions. The South Americans felt cheated and made QRM ("this is a BIZZZNESS"). And the Europeans smothered the CW transmissions or…worse...responded to the calls from the US. Certainly not a gentlemen's hobby today. Bass fishing, civil war battlefield touring, and rediscovery of golf is going to get more of my time.

From Rich, K1HTV: Because of my work hours, I rarely can make it to the regular PVRC club gatherings to voice, like other PVRCers, some of my Ham Radio accomplishments. By working BS7H on Scarborough Reef today I'm now one step up closer to my goal of DXCC HR#1 on SSB and on CW with low power (100 watts or less). Still need 7O (Yemen) on CW and P5 (No. Korea) on both modes to reach my goal.

I have a side story on working BS7H today, May 3rd. Their 20M SSB signal this morning was kind of warbly sounding when I first heard them around 11:00Z. By 11:30Z signals started to climb to S6. Heard other PVRC members WX3B and W3EKT work BS7H, jumped on their freqs, but no luck. By 11:45Z signals from the Reef were up to S7 as I continued to call with the pack.

Around 11:50Z, as they got even louder, the entire Bowie, MD area lost commercial power. Aw @#$% !!!! BG&E has done it again, and with good weather! Its dark in the basement shack and the radio is dead. Then 30 seconds later, the 12KW natural gas powered generator that I installed three years ago turned itself ON! At 12:05Z I worked BS7H on 14230.3 KHz, hopefully not offending the SSTV crowd. DXCC Phone entity #335 with 100 watts was in the log. About 15 minutes later the generator turned itself off when commercial power was restored.

Can you spell HAPPY?

Now, how can we convince Kim Jong Il that Amateur Radio operation in North Korea would be a good thing?

THOUGHTS ON AIMING BEVERAGE ANTENNAS *-- Jim, W4RX*

Received noise power is a function of azimuth, which is what makes these antennas useful. At our latitude and in the winter evening on 80 and 160, noise is loudest from the southern US, Carib, Central and South America, and (to a lesser degree), Africa. From about 270 degrees around to 45 or so degrees, the noise power per degree of azimuth is much lower.

Consider what happens as you swing the orientation of your receiving antenna counterclockwise from 45 degrees. For the first 20 or more degrees, the received signal changes almost insignificantly because the main lobe is so wide. But at the east side of the main lobe, you will be intercepting much less noise, without adding much noise from the west side, which is still turning into very low-noise regions. The net improvement is a function of time and season, but can be useful.

There are enough computer data bases and propagation programs available so that this can be worked out fairly exactly. The steps are:

1. From your location, divide the earth up into a grid in r/theta coordinates. Ten degree and 500 km increments are accurate enough.

2. Superpose your coordinates on a worldwide map of lightning activity for the time/season of interest. What you need is a map of flash density per sq km-minute. I used to have a set of these maps published by CCIRC but can't seem to find them right now and a cursory search of the internet didn't turn up a usable one, but they are out there. (There are lots of noise maps available but they won't work for this purpose, since they are already an integrated function of noise generation and propagation from the noise source; what you need is a map of pure noise generation.) This will give you (in arbitrary units) a measure of noise originating in each square in your grid. Don't forget to correct for time at each site of noise generation.

3. Now for each square corresponding to a given azimuth, calculate the path loss back to your QTH (use VOCAP or some other convenient program). Multiply the noise generation at each square by this loss (as a power ratio, not in dB). Don't forget to also multiply the noise factor for each square by the area of the square (rdrd[theta]), since the lightning data gives you noise generation per unit area). For each azimuth, add all of these noise contributions up and you will have the noise flux per degree of azimuth, as a function of azimuth. When you do this you will note that the noise generation for a given

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BEVERAGE ANTENNAS (continued)

lightning activity goes up in proportion to the distance to the source, but the path loss goes up even faster as you get out to larger distances, so the sum converges.)

4. Now plot the pattern of your antenna on the same grid. Start with the antenna pointed at 45 degrees and assume unity gain at that azimuth. Calculate the received noise power for each azimuth by multiplying the noise power flux at each azimuth by the antenna gain (as a power ratio relative to its peak) at that azimuth. Add the noise contribution of all azimuths and you will have received noise power at your receiver. Assume an arbitrary signal level being received from a station at 45 degrees. The S/N ratio will be that signal level relative to your calculated noise power.

5. Now try another antenna orientation (say, 35 degrees). Repeat step 4 and you will have the received noise power with your antenna at the new orientation. Recalculate the S/N ratio by subtracting the amount of attenuation you have introduced on the received signal (still coming from 45 degrees) by being slightly down on the receiving antenna main lobe. By repeating this process at (say) 5-degree increments, you can plot the relative gain (in SNR) of your antenna as a function of its orientation. The best result will NOT be at 45 degrees!

A caution: both the lightning maps and the path losses are highly dependent on time and season. Antenna pattern is also a factor, but none of these receiving antennas can be called really narrow. And what is best on one day may not be best on the next - this calculation is only an average and there is a large random day-to-day variation. As a general rule, I have found about 20 degrees azimuth (sometimes even less) seems to play best for Europe. Someday I would like to do a full analysis of this and publish it, but I have used this principle for many years. My 160M Beverage is oriented at 15 degrees.

Along the same philosophy, it is better to think of LF receiving antennas as a means to attenuate the noise, rather than to boost the signal. In fact, they are generally quite lossy and have negative net gain, but the noise level is so high that what counts is directivity, not gain. They work best if the noise is coming mainly from a direction significantly different from the desired signal. It follows that a Beverage intended to be used for South America or some other high-noise region (even if pointed directly at the received station) is not going to work as well as one to be used for Europe or JA, which are in low-noise directions.

Good DX!

WALTER CRONKITE, JOHN H. BELROSE TAPPED FOR 2007 RADIO CLUB ARMSTRONG MEDAL

The Radio Club of America's annual banquet, set for Nov. 16 at the New York Athletic Club, will feature "60 Minutes" commentator Andy Rooney as its keynote speaker, and it will hand John S. Belrose, Ph.D., and broadcast giant (and amateur radio licensee) Walter Cronkite the Club's foremost achievement award, the Armstrong Medal.

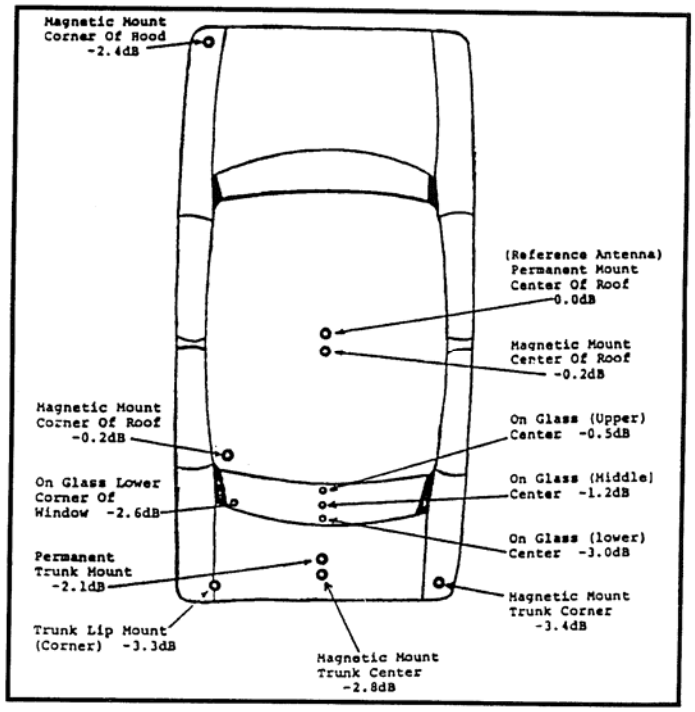
The Radio Club of America is the world's oldest radio communications-society, founded in 1909 to promote cooperation among those interested in the advancement and scientific study of radio communications. Formed by a small group of dedicated radio amateurs and experimenters nearly a century ago, the Club of America counted among its early members the best in the radio communications industry: Maj. Edwin H. Armstrong, David Sarnoff, Louis Hazeltine, John V. L. Hogan, Paul Godley and Allen B. DuMont, to name just a few. Today the Club is composed of modern pioneers, advancing the field of radio communications.

Among his other interests, Cronkite is a radio amateur. He said that although amateur radio has been around for 100 years, it is not out of date. "Many of you know I'm a sailor. I really enjoy being on the sea, with the wind at my back, under way, under sail. What most of you don't know is that I'm a radio ham, too," he says. "My call is KB2GSD. And you can bet that when I'm on the ocean, even if the GPS, the radar and the ship-to-shore fail, I've still got my ham radio station. It really is the best back-up communications system in the world."

Dr. Belrose is one of the Club's most distinguished members and scholars. From 1957 to 1998, he was with the Communications Research Centre Canada (formerly the Defence Research Telecommunications Establishment). When he retired, he was director of the Radio Sciences Branch. In honor of a 50-year career in radioscience, he has the status of an emeritus researcher at CRCC. He is the author or co-author of more than 150 papers, articles, book chapters and technical correspondence letters written relevant to the fields of radio communications, radio science, antennas and propagation. In recent years, Belrose says, "I have been concerned with research in the field of computational electromagnetics (antenna problems)."

OPTIMUM PLACEMENT OF MOBILE ANTENNAS *-- Stephen Orr VE3PIP*

VE3PIP investigated the effect of placement of antennas on vehicles. The results of his experiments are shown in this picture taken from the SPARK-GAP, the magazine of the South Pickering Amateur Radio Club (Ontario)



FROM THE TOWER *-- Don Daso, K4ZA*

500 Words of Wisdom

Maintenance — the dictionary defines it as keeping things (equipment) in a state of repair, and this is a necessary part of having a tower (any tower), often overlooked.

As the fall approaches, it seems like a good time contribute a few words on this subject. For years, I've laughingly remarked that tower work is the one job where you can START at the top. Literally! Indeed, it's usually best to start there, and work one's way down.

The idea behind such maintenance, of course, is preventative in nature—to eliminate problems before their effects become catastrophic or expensive. The station notebook should be consulted before you climb for your station's collected past performance parameters (SWR, resistance readings, and the like). Weatherproofed connections, missing or loose bolts and hardware, corrosion (carry touch up cold galvanizing or paint with you), guy tensions, are all items that should all be checked at least once a year. I like a six-month schedule in climates that have more severe temperature variations.

Once back on the ground, don't overlook the tower's base. If there's an insulator, check it for cracks. If it's an un-insulated tower, check for cracks in the concrete. Check the turnbuckles for tension and for safety wires. It pays to look at the anchors, too. It's standard practice in the broadcast industry to dig down a foot or so to examine the condition of the anchor rod itself.

A few minutes searching on the Internet turned up the following Top-Ten style list of "most common" maintenance issues on broadcast towers.

1) Guy tensions and/or tower alignment not within manufacturer's specs
2) Damage to structural members
3) Corrosion
4) Loose or missing hardware
5) Undersized hardware
6) Problems with ground systems (lightning protection)
7) Transmission lines attached improperly
8) Foliage around guy anchors (or tower bases in ham installations)

I've encountered all of these on ham installations, and would agree with this listed ranking. Incorrect guy wire tension is the most common problem at nearly every ham installation, without question. Only ONCE in over 20 years have I found guys that were too tight — they're usually always too loose. This primarily results from not having a way to actually measure the tension. And folks tend to forget that the tension can change over time, especially if the guy grips are installed without thimbles, for instance, which I see fairly regularly. I've seen Rohn 45 with guy wires that could easily be disconnected by hand. Naturally, one does not climb these towers without first making adjustments, and some owners are upset, here in the South usually offering something like, "But it went through Hurricane Hugo just fine," or telling me how many years it's been standing there, perfectly fine, as their defense. Taking the time to explain how guyed towers work, along with suggesting that following good engineering practice is not only smart, but also economically sound, seems to soften the blow somewhat.

UPCOMING PVRC EVENTS

(details to following during September)

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"

WORKING CHINESE HAMS *-- Fred, K3ZO*

[Editor's Note: One of the great benefits of being a PVRC member is the opportunity to hear the stories and learn from the experience of our fellow contesters. As you will all agree, Fred, K3ZO, has been extremely generous in spreading his wealth of knowledge in contesting and DXing from both sides of many ponds.]

In my 55 years as a ham one factor that has stood out for me is the fact that there are so many different ways to get enjoyment out of our wonderful hobby. In recent years I have been engaged in an effort to see how many different Chinese stations I can work.

I have always been drawn to the challenge of working South and East Asians. Probably that comes from the fact that, both from where I grew up in Wisconsin and from here, it is more of a challenge propagationally-speaking to work that part of the world. Also the DX lore I grew up with, tales of how only a very few were able to get through to legendary DX targets such as AC4YN, AC3PT, CR8AC and AC5PN, undoubtedly whetted my fascination with the idea of contacting that part of the world.

At our college club station W9YT, I was the winner of a six-pack of beer for being the first W9YT operator to work JT1AA, a station which heralded the entry into the world of Amateur Radio for the then-impossibly remote nation of Mongolia. I also fondly recall the time when, while I was at the key of W9YT during the ARRL CW DX Contest, I was called by XZ2TH in the middle of a 10-meter run of JA's.

When I was first licensed in 1952 even JA's were pretty few and far between. Japan had been ravaged by World War II and for a number of years immediately following that war local Japanese operators were outnumbered by the MARS stations operated by the American occupation forces with their KA prefixes with two-letter suffixes. The MARS stations had largely disappeared by the time I started DXing and initially there were only a handful of native Japanese on the air to provide that elusive multiplier in the contests. The most prominent among them was JA1VX who had a massive signal but whose home-made VFO drifted badly each time he came back to you, meaning you had to open up the receiver bandwidth widely in order to keep him in your passband as he handed out reports.

By 1970 the Japanese ham population had exploded, but other countries in the area still lagged behind in exposing ham radio to their masses. India had quite a number of hams but they were hampered by the unavailability of commercial equipment and by poor antennas. Hong Kong under the British always had a handful of available expats but it was difficult for a local national to pass the required "RAE" English-language examination. The Philippines has always had a number of hams but not so many DXers; when in Thailand I get a kick out of listening to the morning Philippine net on 7045; it's unbelievable how many DU's there actually are on the air, something you never realize sitting over here.

One-by-one, the ham populations of several countries in the area blossomed --after Japan, first Indonesia, then Taiwan, then South Korea. As those countries' ham populations flourished I enjoyed concentrating on working as many of them as I could. In all four of those countries I sense that activity has now dropped off as initial fascination with our chosen pastime has tailed off and many of their hams have gotten involved in other pursuits.

That leaves China, which now represents the big ham radio growth area in that part of the world. Working China always fascinated me because when I first got on the air it was impossible to work China. When Mao Tse Tung took over in 1949 what few hams there were were shut down. It wasn't until the 1980's that China got back on the air in a major way. First to come on were a few major club stations like BY1PK. Then school clubs flourished as educators came to believe that ham radio was one of a number of ways to get Chinese kids to learn English quickly. Finally the authorities decided that allowing hams to set up individual stations in their homes was not the security threat that they had earlier thought, and the hams who had been licensed in 1949 were the first to be allowed to establish stations in their homes. They were "grandfathered" back into existence without being required to take a new examination.

Chinese authorities, observing how Japan's tremendous ham-radio boom had coincided with Japan's attaining world leadership in the manufacture of consumer electronics, decided to "jump-start" ham radio all over the country by distributing free low-powered NBFM transceiver kits, capable of running 3 watts crystal-controlled on 29.6 MHz. It was Larry, N4VA who first called my attention to this phenomenon when we both happened to be in Thailand at the same time (Larry is also HS0ZAX). A CQ on 29.6 NBFM from the HS0AC club station at almost any time of day with the beam north was certain to bring a raft of replies from these low-powered stations, and it was usually all one could do to finally drag a call sign through the mess and exchange bare-minimum info reequired for a valid QSO. I recall one day when the band was open only to the parts of China which fall into the storied CQ Zone 23, and it was cool to work 15 or 20 Zone 23 stations in a row!

Well the Chinese economy has improved now and many of these fellows and gals have been able to afford a Japanese radio and have now become acquainted with 15 and 20 meters. New licenses are being issued at a rapid pace.

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WORKING CHINESE HAMS *(continued)*

The beginning license, which carries a BG prefix, was initially not valid for 20 meter operation, but the authorities, bowing to the realities of propagation at the low point of the cycle, have now permitted the BG's to use all bands. When a Chinese ham upgrades to the next level, his prefix changes to BD. Finally, if he or she gets to the highest level, they swap that BD prefix for a BA.

Working as many different Chinese stations as possible has become my newest operating fancy of choice. At this writing I have worked 175 different BG stations and have QSLs from 131 of them. I have worked 149 different BD stations and 121 of them have sent their QSLs. Of 63 different BA's, only 10 have failed to send their QSLs. And of the 105 different BY club stations I have worked I have managed to collect 80 QSLs. I have also worked 106 other Chinese stations with B, BI, BL, BS, BT, BW and BZ prefixes. None of this total includes the many stations I have worked in Taiwan, Hong Kong or Macao, and all have been worked from my home here in Temple Hills.

It doesn't hurt to have an 8-el Telrex Yagi for 15 meters at 155 feet and a 6-el Telrex Yagi for 20 meters at 150 feet, but beyond that managing to keep working new Chinese hams all the time requires some care in observing their operating habits and some skill in getting through to them. It is this challenge to hone my skills in this direction that makes the hunt that more satisfying and interesting.

I don't speak a word of Chinese (or to be more specific, Mandarin, Cantonese, Szechuan or any of the other myriad Chinese dialects.) And most of the Chinese hams I work speak little English, frequently only enough to exchange call signs and reports.

April-thru-September is good time of year to work China from here. If the K index is 2 or below the 20 meter band is likely to open over the North Pole around 1100 UTC and can last until 1300 UTC or so. This coincides with early and mid-evening in China when people are likely to be at home. Good markers to check propagation are harmonics of broadcast stations from the area which show up as carriers on 14250 and 14280 KHz. Also Charlie Ho, VR2XMT is always on the band and if his signal is over S9 it pays to look for Chinese hams.

One starts by leaving the receiver on 14270 KHz, the "Chinese Calling Frequency". Most mornings I put the radio there and leave the speaker on while doing QSL bureau work in the next room. When I hear activity I go to the rig. Because call signs cannot be formulated from the Chinese written language, we are fortunate in that, even when Chinese hams talk to each other, they ID in English. They also use a standard format in calling CQ, which ends with "this is [BG4AAV] calling CQ and standing by."

While I don't understand Chinese I have listened to enough QSOs to know their procedures. Often when they finish a QSO they will say "seventy-three" in English and almost always "bye-bye". They also use "OK OK" rather than "Roger", very handy to know when you are trying to verify their call signs or they are trying to verify yours.

In general 14270 is meant to function for the Chinese like 50110 is for 6 meter DXers: You use it to make short contacts and if you wish to engage in a rag-chew, you move off. I can often tell when a pair of Chinese hams has decided to move off to continue a QSO, as they can be heard to say "let's go" or give out what is obviously a string of Chinese numbers. They almost always will QSY in 5 KHz chunks so if I hear a station moving off which would be a new station for me, I can usually find them on 14265 or 14275.

Usually however I work a new Chinese station by answering his/her CQ on 14270, or by calling a station I want after they finish a QSO there. Quite often the station will be confused at first, not really wanting to believe that he/she is being called by someone on the other side of the world. A frequent error is to copy my call as "Kilo Three Zulu Alfa" as apparently to the Chinese ear an American-accented "Oscar" sounds a lot like "Alfa". So I use "Ocean" or "Osaka" as alternatives for the "O" to try to get my call through to them. Several of the 14270 regulars who I have worked before will often help after a third or fourth unsuccessful attempt by the station I am calling to get my call straight, and will explain in Chinese what is happening. If conditions are good, after that initial QSO six or seven other Chinese stations will call me, half of them people I have worked before but two or three being new stations.

The final part of the QSO with the new Chinese station is to go to http://qrz.cn/call/ and get the address of the station so I can send him/her my QSL card. I find this site is very up-to-date and lately they have begun giving the addresses in Roman script as well as Chinese, but I still prefer to print out the Chinese script on a label and paste it on an envelope, writing "China" below.

I try to be polite and not monopolize the frequency so if nobody else is calling me I don't come back and call "CQ" again. After a brief period of silence it is sometimes a gas to listen when they resume talking to each other as they are obviously talking (bragging?) about having worked me as I hear my call being bandied about between them.

There are lots of overseas Chinese in neighboring countries and some of them are interested in having Chinese-language QSOs, so it is not unusual to hear a Malaysian or Indonesian or Singapore station call "CQ Bravo" on 14270, which is the way they call a directional CQ to China.

Bottom line, there are many ways to continue to be fascinated by this hobby of ours, and this has become my latest method of choice for challenging myself to observe and adopt new DXing techniques.

VHF/UHF CONTESTING CORNER

-- Jamie, NS3T

It has been another good summer contest season for the PVRC, as raw numbers from the ARRL show the club winning a fifth straight title in the June VHF contest.

The PVRC has a claimed score of over 3.7 million points from 32 logs, bettering the 1.35 million by the Mt. Airy VHF Club and the 1.16 million by the Society of Midwest Contesters.

One interesting note on those figures is that the SMC submitted 52 logs, while the PVRC had only 32 entries - but a lot more points!

As for claimed scores by the PVRC, K8GP has a 300,000 point lead on W2SZ in the multi-op category. The best club single op score came from K1RZ, who for now is in 4th place in the high power competition.

Congrats to all who spent some time on the bands!

As for what's next, September not only brings another ARRL VHF contest, but also signals the start of the Fall VHF/UHF Sprints, sponsored by the Southeastern VHF Society.

Mark your calendar for September - the ARRL contest begins on Saturday September 10. The first Sprint is for 2 meters on Monday night September 17. The 222 Sprint is on Tuesday night September 25.

In October, the 432 Sprint is Wednesday night October 3rd. The 903 and up Sprint is Saturday October 13, followed a week later on the 20th by the 6 meter Sprint.

As for the ARRL September VHF QSO Party, PVRC finished second in the club competition last year, as the North East Weak Signal Group won easily. In 2006, the PVRC had only 19 entries; maybe we can make that a bit more in 2007!

More on the contest world can be found on my website, http://www.radio-sport.net

A BOOK REVIEW *-- Brian, WV4V*

Contesting in Africa: Multi-Multi on the Equator
by Roger Western, G3SXW and the Voodoo Contest Group (available from the ARRL)

This 2004 paperback covers 10 years of contesting by an Anglo-American group of hams who drift in and out of West African capitals each November for the CQ World Wide CW contest and who also drift in and out of the group. Maybe they should call themselves the "Drifters" but instead they prefer to call themselves "VooDudes."

The book should be a must-read for any contester wannabe, and for any ham contemplating a single or group DXpedition to a location with a different culture and a different economic strata than the one with which he is familiar.

To put it in context the VooDoo Contest Group only participates in one annual contest and has limited itself each year to one of six West African countries on a rotating basis for the November contest. The Group operation is very much a DXpedition solely for the purpose of participating in a specific contest in one region, but from different countries. The book is co-written by at least eight contributors each giving a separate perspective on the contest or the operation itself.

For those just entering the contesting phase of the hobby or just curious about it, the book is a primer on various terms, concepts, and how-to-win strategies of contesting which is one of the book's strengths; whereas the limitation to the rules and culture of only one contest is one of its weaknesses. Obviously, participation in the one weekend contest is very expensive when you consider the airfare, meals, ground transportation, and recurring costs of replacing equipment. Although the VooDudes keep a large amount of the equipment for six or more separate stations stored in a friendly "safe-house" in Ghana from year-to-year, it is still subject to the vagaries of temperature, humidity, rodents, insects and the like. One or more new antennas are brought in every year. No mention is made in the book about corporate sponsorships, contributions, or cost per person.

Any DXpedition requires enormous preparation. This book, when read from cover-to-cover, will help jog the reader's mind and assist him in preparing a checklist of things to do and things to ask about. Although not mentioned, Murphy's law will inevitably come in to play, as it did for the VooDoos in Niger, where the group assumed they could have access to the Internet during the contest. Instead, they were frustrated at every turn.

The lesson learned is that when things go wrong – and something always does -- you must be extremely flexible and willing to adapt, all while keeping a positive outlook.

The Westerner will find that the African culture or the African way of doing things may prevail. One of the authors used the acronym WAWA describing this characteristic. While we may know it as a gasoline station/convenience store, to the author it stood for 'West Africa Wins Always.' Several decades ago I learned from my boss that in our overseas private investment business it stood for 'West Africa Wins Again.'

Regardless, the happenstances and advice given in the book is just as good tutorial for traveling and working in Southeast Asia, South America or any developing country or region. "Contesting in Africa: Multi-Multi on the Equator" by Roger Western, G3SXW and the Voodoo Contest Group will be a useful reference guide for many years to come.

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

- ***Tidewater***

Meetings are on the THIRD MONDAY of each month at the QTH of N4BAA for now. I have a huge home and can handle just about whomever shows up.

- ***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

- ***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

- ***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

- ***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!

PVRC Spotting Network

WR3L: telnet://dxc.wr3l.net
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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

PVRC OPERATION FROM ARUBA

-- Roy, W3BTX

Earlier this year Roy, W3TEF, and I requested a special prefix that could be used over the upcoming anniversary of the Sept 11, 2001 attack on the USA.

The government of Aruba issued our requested call **P41USA** for the period of Sept 1-15, 2007. In addition, we also received permission to use several photo's taken at NYC by the National Park Service for our special prefix QSL card. The QSL card will also mention that we are affiliated with the **PVRC.**

Roy and I will be operating 160 through 6 Meters, including the WARC Bands, at various times during this period using the special call.

It's possible that several bands will be operating at the same time. **All QSL's should go to Roy W3TEF (direct with SASE or via bureau.)**

RECOMMENDED WEB AND OTHER RESOURCES

Jim Brown, K9YC, is our featured speaker at the October Central region meeting at Capitol College.

audiosystemsgroup.com/publish.htm is Jim's, authoritative source for everything related to RFI. Jim is a recognized leader in the commercial audio field, and has written extensively on the subject of RFI and RFI mitigation.

Kristen Haring is our featured speaker at the October 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. Your editor purchased his copy at Politics & Prose in D.C., where it is in stock.

WHAT'S IN THE NAME OF A CONNECTOR?

-- Kelvin, ZL3KB (from NZART Break-In)

Having lived with RF coaxial connectors for some years (don't tell my wife) I have come to accept their names as household acronyms and never questioned their origin. That was until a debate started in Radio Bygones, one of the vintage radio magazines. Being a democracy, someone asked, what does BNC stand for? Well after many months of flying letters, here is the answer along with a few other connectors whose initials we all know (and hate):

C type: Concelman type. Developed by Carl Concelman of Amphenol, USA. These look like oversized BNC connectors.

N type: Neill or Navy type. Originated in 1942 by Paul Neill of Bell Labs and standardized on a Navy Bureau of Ships drawing.

BNC: Baby or Bayonet Neill Concelman. A baby-sized combination of designs by Paul Neill and Carl Concelman.

INC: A threaded version of BNC type.

RCA: Developed by Radio Corporation of America.

UHF: Ultra High Frequency. Developed in 1940 by E. C. Quackenbush of the American Phenolic Corporation (later Amphenol). This one has always puzzled me, as they turn out to be very poor at UHF. It was later pointed out that when this one was born, in WW II, "UHF" meant the band above 30 MHz, or VHF as we know it today. I don't reckon they are much good there either! Also known as PL259 and S0239 which are a hang over from the WW II Signal Corps stores catalogue number system.

EIAJ: Electronics Industry Association of Japan.

MUSA: Multiple Unit Steerable Array. Developed in the 1930s by the British Post Office. Very similar to the American Western Electric video jack.

DIN: Deutsche Industrie-Normen Auschuss (German authority for making standards).

Many connectors have been named after the company that invented them. Examples of these include:

PET-Precision Electronic Terminations.
F&E-Films and Equipment Limited.
JONES-plugs and sockets, a multi-way low voltage connector with flat pins.

We are left with many more with no information on the meaning of their initials, such as SMA, SMB, SMS, MMS, BNO (two pin BNC).

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