



PVRC Newsletter

March 2017

President's Letter – Bud W3LL

I'm writing this column well before the month ends because Kayreen and I will be on vacation during the second half of it.

I attended the Galactic Event along with all five officers. That may be a new PVRC first. The event was a spectacular meet and greet success thanks to all who attended and to both our hosts, Bill NR4C, chairman of the Colonial Capital chapter, and VP Ted W3TB.

At the restaurant all 55 attendees had an opportunity to introduce themselves. This was perfect for me not having met many attendees. The NAQP Club Competition Cup was prominently displayed at each table to coincide with a photo op. Look for the photos on the PVRC website.

I took this opportunity to present President's Awards in the presence of the recipients' peers. Also, Atlantic Division Director Tom W3TOM was able to provide PVRC winning gavels in time for one presentation at the Event.

Bob W3IDT was presented with the 2015 September VHF contest Medium Category. ARRL Gavel. "For perseverance in making it to the top of the W3SO mountain in all kinds of weather and for W3SO summary result write ups." Let's not forget this was at Marty's W3YOZ VHF mountain-top W3SO station.

Tucker McGuire W4FS was presented a President's award plaque "For Most Improved New Contester." One of PVRC's younger active contesters, Tucker has advanced his skills rapidly, putting up good scores, showing constant improvement, and even winning the Rookie overlay category for North America in the 2016 CQ WPX SSB contest.

Nate Moreschi N4YDU was presented with a President's award plaque "For Outstanding Service to Ham Radio Contesting by Being an ARRL Contest Awards Editor." Everyone knows that Nate is a world class contester, a past WRTC competitor and the chairman of the NC – East Chapter of PVRC. But he also contributes to our sport by making the considerable commitment to serve as an editor for published ARRL contest results. Let's cheer Nate on in WRTC 2018!!!

Ted informs me that reservations for next year's Galactic Event have been made for the first Saturday in February 2018 at the same time and place. More background about the Galactic Event:

A program which also includes a technical side to it was initially considered but determined to be beyond the Meet and Greet intention. We carefully looked at the YCCC program and liked it. However the major stumbling block has always been finding volunteers to present appropriate material. I for one look forward to Contest University and all the informative forums presented each year at the Dayton Hamvention.

For those who were not involved with the Galactic planning, we reached out to the membership for an appropriate start time. All to a man/woman said that with three hour drive times to please schedule for no later than a 1:00 PM start time. This was to allow sufficient time to thoroughly shop for items at Frostfest and to be able to get home after the Galactic Event prior to darkness setting in. Therefore the time for the Galactic Event was set at a 1:00 PM start and an end time no later than 4:00 PM.

VP Tom K3AJ and I live very near the northeast end of the circle. We rode together. I left home at 7:00 AM after a decent sunrise to meet Tom. We arrived three hours later at Frostfest - that was 10:30 AM. We both inspected every table and spoke to many vendors. Tom made a major purchase. By 11:45 AM we saw everything there was to see and so entered the front eating area of the Frostfest venue at that time. We conversed with many other PVRCers who had completed their tour looking for items to see and buy. At 12 noon we had a PVRC meeting in the lobby for those not planning to attend the Galactic Event. That meeting ended before 12:30 PM. Everyone then went to the Galactic Event restaurant.

By 3:30 PM the festivities at the restaurant were coming to an end. Tom and I then began our trip home. Three hours later we arrived home as darkness was setting in. No issue with us who live on the fringes of the circle to avoid driving in darkness. The chosen hours worked out perfectly. The camaraderie and opportunity to meet everyone along with the presentation of awards would not be possible with the constraints of a 1:00 PM to 4:00 PM luncheon plus a technical program.

Richmond was chosen as the site for the Galactic Event primarily because it is a metropolitan city with transportation infrastructure. Richmond is also closest to the center of the circle as shown in the online [PVRC circle](#). Actually, Louisa Virginia is the historical physical center of the circle.

In the meantime I'm going to Dayton in May to meet other PVRC members and keep up with the changing face of ham radio contesting. Registration is now open for Dayton's [Contest University](#).

Speaking of Dayton and in particular about Contest University; Did you know that PVRC has **three** professors teaching classes there? We thank Frank W3LPL, Dan K2YWE and Bob N4HY. Fourth Professor Tim W3YQ is within hailing distance to PVRC Roanoke and SWVA chapters. We need to get him aboard. Speaking of PVRC teachers let's not forget Don K4ZA and his Antenna Towers for Radio Amateurs book.

On another note: There may be a second PVRC wide event happening in October. Stay tuned. Also, don't be surprised to find the monthly PVRC newsletter arriving at your email inbox in the near future.

Next up is the PVRC Reunion just around the corner in June. I wrote last month about Secretary Tim N3QE's work on integrating PVRC Reunion entry info into N1MM's Swepestakes module. Look for expanded info on this in next month's edition.

Here's another plug for Live Contest Scores online. If you want to get in on the action here's how: You only need to set this up **once** in N1MM, instructions are [here](#).

To view the action go to the Live Contest Score Server URL. For major contests that include Europe go [here](#): For domestic contests such as NAQP, go [here](#).

Here's how Tim N3QE makes use of the online Live Contest Scores Server:

"One neat feature of the cqcontest.net website, is that you can also access comparative graphs of Q's, mults, and points over time for a group of competitors. For me at least, graphs and maps are way more accessible than spreadsheets.

For example, I have put up comparative charts of NQ4I and AA3B showing their 48-hour race for mults, QSO points, and total score [here](#). What the graphs show matches my on-the-air perception of the first night vs the second night.

The first night, W4/W5/W8/W9 had a clear advantage to Europe over us in W3, I know because I heard them winning the jump ball in pileups to EU over and over again. In the graphs this shows up as a NQ4I's advantage in the first night.

The second night, W3 had an advantage especially in ability to run long strings of EU's for 10 points each. Look at how AA3B (blue line) really took off, a steep rising line, in QSO Points (called "PTotal", the second graph on my website) on the second night of the second graph in the 0200Z-0600Z timeframe. I did the same thing (well, not as effectively as AA3B did) and took advantage of that too. Especially by going up into the nosebleed section (1860kc+) of the band where there was less congestion I was able to run EU's."

Dave K3ZJ provided one caveat for those who are in the Unassisted category: "I don't have access to the Web from my cabin, so I won't be on live scoreboards any time in the near future. However, if you are a single operator (i.e., no assistance), be aware that, like spotting, there is a line that if crossed, your entry becomes "assisted." This includes viewing some of the information on a live scoreboard at any time before you completely finish operating the contest. The one place that I know where this is spelled out is the CQWW rules FAQ, but I would follow it in all contests unless and until it is addressed in the rules of the specific contest of interest.

The [CQWW FAQ](#) reads: "Q: As a Single Operator, can I post my scores to a live scoreboard? Can I view the scores of others? Any entry class may post their scores to a live scoreboard (e.g., cq-contest.ru or getscores.org). A single operator may view the scores on a live scoreboard site, but should not view the band breakdown information." If you have questions after reading this, direct them to: questions@cqww.com." 73, Dave K3ZJ"

For Unassisted Ops: Don't click on Expanded View. Expanded View shows additional information including band by band breakdown. Normal view shows only the scores and is acceptable for a single unassisted operator.

Did you know that PVRC sponsors 12 contest award plaques each year in addition to the 5M and President's Award plaques? And did you know that Treasurer Tom K3AJ is the program manager? Our philosophy is that as a leading contest club, we should be doing our part to support the various contests and their organizations by sponsoring plaques. And that's what we do! The cost is considered part of our core mission and is funded out of general PVRC revenues, so we don't specifically seek funding for this purpose from individuals. Here's a listing of the contest award plaques that PVRC is sponsoring this year:

- Sweepstakes SOLP SSB Atlantic Division
- Sweepstakes SOHP CW Roanoke Division
- ARRL DX SOHP CW North America
- CQ WW RTTY World Club
- CQ WPX RTTY World Club
- CQ WW DX SOAB HP SSB Europe
- CQ WW DX SOAB HP SSB USA
- ARRL June VHF SOHP Atlantic Division
- ARRL June VHF SOLP Atlantic Division
- ARRL June VHF SOHP Roanoke Division
- ARRL June VHF SOLP Roanoke Division
- CQ 160 CW SO HP Assisted Zone 5

Last month we focused on some of the activities that Secretary Tim is involved with. This month we'll take a closer look at Treasurer Tom K3AJ. I mentioned the plaque program above that Tom is responsible for. Here's a synopsis of what Tom had his hands in this past month which is typical of every month:

Each of you received a copy of PVRC's financial report prepared by Tom. That was the simplified version. A more detailed report was sent to the Officers and Trustees. Additionally from Tom to me:

1. I ordered new checks for \$19.43. The old checks had N3RR's home address on them. The new checks have our PO Box legal address.
2. All of the plaque sponsorships for 2017 have been paid. We were able to get all of those that we had agreed upon. Total cost was \$710.00.
3. We received payments from two of our advertisers HRO and The Daily DX for Newsletter advertising.

4. Howie, N4AF is changing the QTH.com account ownership to me. We have a payment due at the beginning of April to maintain the registration of PVRC.org.
5. We will need a resolution approved by the Trustees in order to change the Resident Agent. Once we get that I will proceed with the change. The new service with Harbor Compliance will cost \$99/year. I will use them to do the required filing to make the change for a cost of \$50 (which includes the \$25 state fee). Attached is the resolution wording. Also attached is an explanation that can go to the Trustees along with the resolution so they know what we are doing.”

Background on Proposed PVRC Resident Agent Change February, 2017

PVRC is a non-profit corporation chartered in the State of Maryland. Maryland law requires that each corporation file with the State the name and address of a Registered Agent. The Registered Agent must meet some specific requirements under the law. Those requirements cause the vast majority of Maryland Corporations to secure the services of a firm specializing in meeting those requirements to act as their resident agent. The main purpose of designating a Resident Agent is to provide an attended physical address so that legal process can be served. It is possible for an Officer or Director of a corporation to serve as Resident Agent, but this is rarely done and I doubt anyone in PVRC would want to become legally responsible meeting all the requirements.

PVRC has been using CT Corporation (a subsidiary of global consulting and legal services firm Wolters Kluwer) to act as our Resident Agent. Last year the cost was \$380.00. It appears that this fee has been escalating about \$20/year. Our current term of service with CT runs through May 1, 2017.

While the Resident Agent of a major business corporation might need to provide services on a regular basis, for small businesses and non-profits, the Resident Agent is basically providing a stand-by service (i.e. – they don't really do anything).

There is a vigorous competitive market for providing Resident Agent services. Annual fees are quoted as low as \$49/year. I contacted the State of Maryland Department of Assessments and Taxation office that handles corporate charters. I asked if there was some listing of approved providers for this service. I was advised that there is no state certification of these providers and was advised do a Google search to find a provider.

After looking at several providers, I recommend that we change our Resident Agent to Harbor Compliance. This is a firm that provides Resident Agent and related corporate compliance services in all fifty states. They are registered with the Better Business Bureau and have a very high rating with them. There was only one complaint registered with the BBB and it was resolved to the satisfaction of the complainant. They charge \$99/year to act as Resident Agent. They can also handle the required filing with the State of Maryland to effect the change and will charge \$50 for that service, which cost is inclusive of the \$25 fee charged by the State.

Maryland law requires that the directors of a corporation specifically authorize the change of Resident Agent by passing a resolution to that effect before making the required filing with the State of Maryland.

Tom Valenti K3AJ
Treasurer, PVRC

The resolution was approved by the Trustees today as I write this column.

The above is just a snapshot of some of the projects that our Treasurer accomplished this month. There's not enough paper reserved for this column to include all that Tom did this month much less wall year.

Next month I'll expand further but for now it's on to the Sports Page, with K3AJ standing in as Sports Reporter:

A lot of PVRC folks enjoyed the CQ 160M contest. Overall, conditions were good, with most reporting that the band was pretty quiet. Many reported hearing EU stations on Friday night, but not being heard there. On Saturday night, the propagation to EU was good. Propagation to the western US was very good both nights. Overall, some said this was the best CQ 160 in their experience.

Let's talk about the PVRC big guns first. K3ZM topped the PVRC scores with 883K for first place in the US SOHP and 5th place world. KT3Y operating KP2M wasn't far behind at 866K and a top 10 world finish. NR4M took third place in the US in multi-op HP and KC4D just missed the top 10 in this category. KD4D at W3LPL took first place US in SO LP. K1HTV and K4ORD also made the top 10 US in SOLP. Top 10 US finishers in SO HP Assisted included N1LN at 478K and K2AV with 447K. N3QE, K0ZR and ND3D (at W3LL) also made more than 1,000 QSO. Kudos to AA4XX and N4UA on impressive efforts in SO QRP, finishing 1 and 2 in the US with 541 QSO/89K and 5467 QSO/85K respectively. Proving that any antenna will work, K4HQK, K3RA and N4CF all operated with makeshift antennas. KE4S was a first ever player in a 160M contest.

Continuing the good turnouts by PVRC in RTTY contests, CQ WPX RTTY saw 51 entries by PVRC members. Notable scores include NR4M putting in a #1 US score of almost 15M in M/U HP, W3LL coming in at 4.4M for what appears to be a 5th place finish in the US in SOHP, K3ZU scoring 1.8M in SOLP to take the #1 spot in the US, N3QE taking #1 in the US in SOHP (TS) with his legendary single dipole station achieving 3.5M, W4ML (with Mr. Run 'em W4MYA himself banging away at F1) coming in right behind N3QE for the #2 spot in that category. Not to be forgotten were good multiop efforts by KG4USN (at W3EKL) taking #3 US with 3M in M/2 HP and AA5AU (at W4AAW) overcoming a near disaster early in the contest, losing internet connectivity to this remote operation for nearly 16 hours, to score 8M in M/U HP. Other scores north of 1M were put in by W4PK and NE3H in SOHP, K3AJ in SOSB40 HP. A good number of the guys got on to make a few QSO's and notch another one for the 20 for 20 award!

The big four DX contests are truly a ham radio institution, and a must on many of our members' calendars -even if only to get on for a little while. In the heavyweight division, the big M/M stations have been slugging it out right to the bell in the last round. Looks like this time team W3LPL just edged out arch-rival K3LR for the top spot. WE3C has been steadily improving and they are not far behind. And it should be noted that PVRC station NR4M has edged up into the elite level, with a strong 4th place finish. Watch out, WE3C! Also, W4RM put up almost 7.5M in this category. Gigantic scores were also notched by some DX operations by PVRC operators. KP2M (with PVRC'er KT3Y) in M/2

took third. Nate, N4YDU operating at TI5W was just edged out for the top spot in SOAB HP – it will come down to log checking. Luis, CE2LML/CX1EK operating at XR2K made an impressive effort in SOSB LP/10 with 900 QSO's. K4QPL at VP5M made over 3,000 QSO in SOAB LP for a top 10 finish. N4CF and WR3R finished 5th and 6th in SOAB QRP respectively. Scores north of 2M using HP were notched by K0ZR, N3QE, N4AF (4.2M in SOAB HP), K3ZO, and W4CB. N8II scored an impressive 1.7M in SOAB LP.

As the Sports Pages goes to press this month (Sunday, February 26), the CQ WW 160 SSB contest isn't quite over yet. But we will give an interim report based on those who have filed their results and mention any notable accomplishments or catastrophes that emerge after the filing deadline in next month's edition. Although the contest opened with the band pretty quiet, after dark Friday night featured continuous static in the S9 plus range throughout PVRC territory. That reduced the output from last year's notable PVRC presence. At press time, 14 PVRC scores have been posted. The top score so far was by the multiop at WG3J on the Eastern Shore. Eric and his team made over 400 QSO's for almost 77K points.

It looks like in addition to the conditions, competition from the NAQP RTTY contest held our participation down, although a number of members reported getting on to notch another 20 for 20 score. With DC being a multiplier in this one as well as in NAQP, the pressure was on for the DC contingent to come out and play. KE3X and AJ3M (at 4U1WB) answered the call in both contests, handing out the DC multiplier to 250 of the deserving. Single ops reporting over 200 QSO so far include N3QE, KE3X, N3HEE and W4AAW. There are no doubt some serious players that haven't reported yet, and we will update on them next month.

NAQP RTTY seemed to have a pretty good turnout based on the author's recollection of who he worked, but so far only about 25 have reported on 3830scores.com. We should at least equal the 39 who played last February, with the additional 5 ops at a multiop, another 4 or 5 whose calls showed up in my log and certainly there are still reports yet to be made. Many of us in PVRC lost some time to the bizarre weather – thunderstorms and even hail in February! K3AJ M/2 (K3AJ, N8IVN, ND3D, WA3AER, WR3R) made 708 QSO for 90K. The top SO score so far is by K4GMH with 799 for 103K, currently sitting in 7th place. N3QE with 632/83K and K7SV with 586/73K are other big PVRC scores. AJ3M (at 4U1WB, as usual) provided the DC mult to 446 stations.

73, Bud W3LL and Tom K3AJ

<u>PVRC Officers:</u>		<u>Trustees:</u>
President:	W3LL Bud Governale	K3MM, N3OC, WX3B, W4ZYT, N4NW, K2AV, KE3X, K4ZA, K3WRY
Vice President:	K2YWE Dan Zeitlin	
Vice President:	W3TB Tom Edwards	
Secretary:	N3QE Tim Shoppa	<u>PVRC Charter Members (all SK):</u>
Treasurer:	K3AJ Tom Valenti	W3GRF, W4AAV, W4KFC, N0FFZ, W4LUE, W7YS, VP2VI/W0DX, W3IKN, W4KFT
PVRC Website: http://www.pvrc.org		

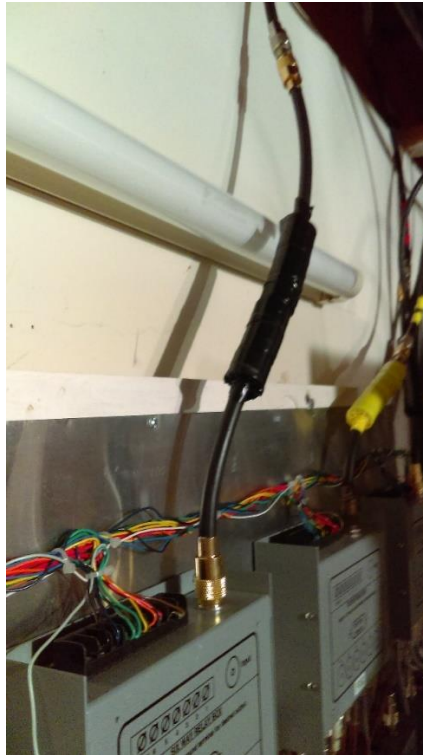
Western NC PVRcers Perusing NAQP Trophy Cup – Henry Heidtmann W2DZO



From L-R: Henry Heidtmann W2DZO, Don Edwards WS4NC and John Kippe K1PPE



Home Brew Coaxial Line Chokes for Multi-Multi – Mike W4AAW



Above is a picture of the new coaxial line chokes that have proven effective at W4AAW. There are identical chokes on the other ends of each feedlines, right at the output of each of the three Acom 2000A amps. There is common grounding of all coax feedlines at the antenna switchboard, at a surge protector buss bar and at the base of each tower. Not a single "gripe" was received about harmonic interference during a recent weekend's RTTY contest. There is yet some slight interference detectable, but I still have a lot of other filter and stub placement work to do.

There are four each FB-102 slip-on ferrites of Mix 75 and Mix 31 on a 16" piece of RG-213. The elegant "finish" would be to encase all the beads in heat-shrink tubing. However, being under the gun with the Friday's 7 PM EST contest start time fast approaching, I used up some ratty old electrical tape.

I started to do the calculations to show how many of each ferrite I would need to achieve the recommended common mode attenuation, but could see I could not afford that. So, I just bought 24 of each mix of slip-on with what was left in my project kitty for February. (HI)

I will probably get Jeff K0ZR to help me with the math since I am just awful at that sort of thing. Once that's done, I can order any additional slip-ons needed, plus a dozen first-rate PL-259s and proper heat-shrink tubing.

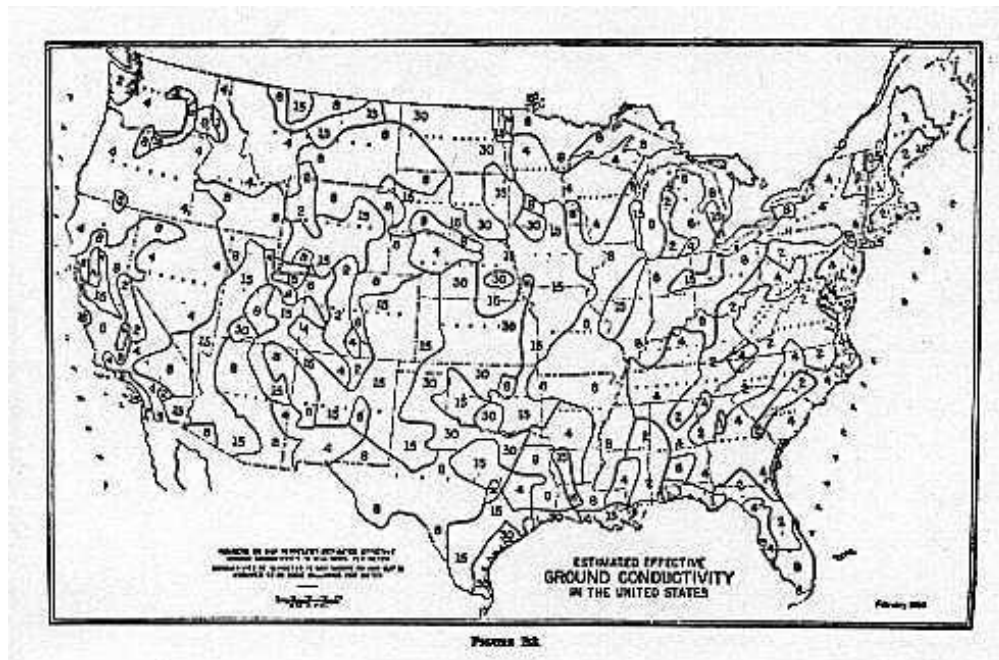
Palomar does sell kits that do this, using 2" toroid cores. They are \$55 each.

Ground Conductivity in PVRC-land – John K3TN

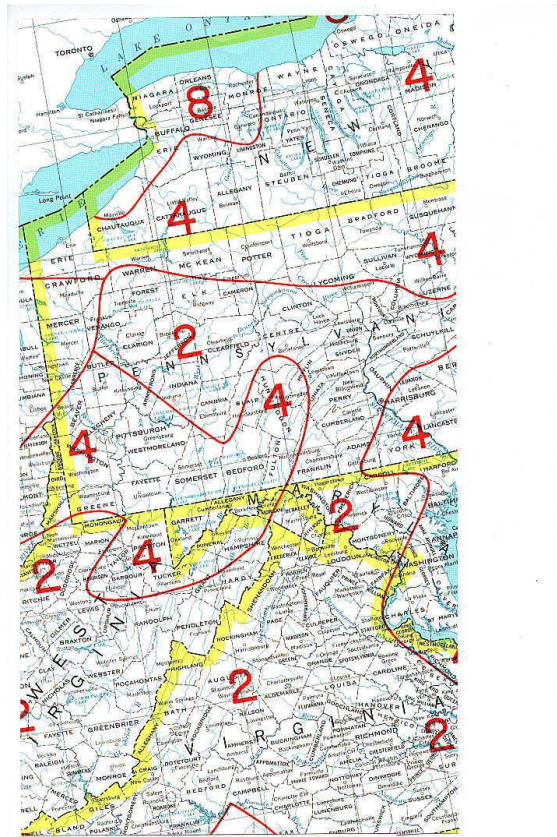
Solar minima are good times to work on low band performance, so I started thinking about my 160 antenna radials and ground conductivity. Some of the data sources I found:

From the FCC [web site](#):

Figure R3 of [47 CFR 73.190](#) of the Commission's Rules contains a map of the estimated effective ground conductivity in the United States. This data is used to predict the propagation of AM signals across the United States. A higher ground conductivity indicates better AM propagation characteristics. The map shows that the ground conductivity in the U.S. ranges between 0.5 and 30 millimhos (or millisiemens) per meter. The conductivity of seawater is 5,000 millimhos per meter, resulting in the best propagation of AM signals.

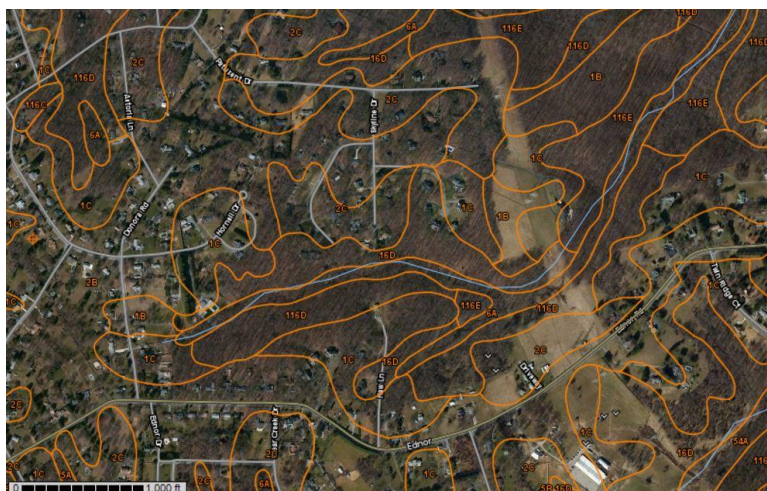


A close up of the center of the PVRC region shows our below average soil:



The numbers from the FCC survey are from the 1950's and show large areas. If you are really into this, the US Department of Agriculture Natural Resource Conservation Service collects data on soil composition from soil surveys and post the data [here](#).

The soil composition data does not show ground conductivity, but you can infer that from the soil types. Here's an example of some of the data, centered on my home QTH:



Membership News – Tim N3QE

PVRC did not add any new members in the last month.

Chapter leaders please remember to complete the [Meeting Attendance Report](#). Members can check and update their roster details via the [Roster Lookup](#).

Upcoming Contests and Log Due Dates

Contests This Month

- Mar 4 - **ARRL DX SSB**
- Mar 12 - NA Sprint RTTY
- Mar 18 – BARTG RTTY
- Mar 18 – Russian DX
- Mar 25 – WPX SSB

Logs Due This Month

- Mar 3 – NAQP RTTY
- Mar 19 – NA Sprint RTTY
- Mar 21 – ARRL DX CW

See WA7BNM's [Contest Calendar](#) for more detail and the latest information.

The Editor's Last Word – John K3TN

Thanks to W4AAW for the contribution this month. Pictures of stations, contest stories, antenna work tales – send anything you have to [jpescatore at aol dot com](mailto:jpescatore@aol.com)

From the PVRC Treasurer – Tom K3AJ

PVRC has chosen not to implement an annual Dues requirement. We depend on the generosity of all of our club members to finance our annual budget. In addition, active PVRC members are expected to participate and submit logs for at least two PVRC Club Competition contests per year.

When contemplating your donation to PVRC, each member should consider the benefit you are receiving from PVRC and its many opportunities for your personal growth in our wonderful hobby, then donate accordingly.

Direct donations to PVRC via Credit Card or PayPal may be made by clicking this "Donate" button and clicking the next Donate button that appears on your screen:



Donations to PVRC are not tax deductible

Eyeball QSO Directions

The latest info on local club meetings and get together will always be sent out on the [PVRC reflector](#) and posted on the PVRC [web site](#).

NW Region: Meetings are generally held on the third Tuesday of each month at: [Chef Lin](#), 417 S Jefferson St. Frederick, MD 21701 Phone #: 301-620-0664(2675)
The meeting begins at 7:00 PM.

Contact: Jim [WX3B](#)

DC Metro: Meets monthly the second Monday of each month, except June, July & August). The location alternates between the below MD and VA locations. Pre-meeting dinners start at 6:00 pm and meetings start at 7:30 pm.

VA LOCATION: Anita's, 521 E. Maple Ave, Vienna, VA. Tel: 703-255-1001. Meets at this location during the months of February, April and October.

Contact: Rich [NN3W](#)

MD LOCATION: Max's Café. 2319 University Blvd W, Wheaton MD 20902. Tel: 301-949-6297 People usually begin arriving at the restaurant around 6:00. Meets at this location during the months of January, March, May, September and November. Contact: Art [K3KU](#)

The Laurel, MD Region: Bill N3XL The PVRC get-together is held at the first [LARC](#) meeting each quarter at the clubhouse.

The Annapolis Crew: Dan K2YWE Meetings are held on the 4th Wednesday of each month at Broadneck Grill in Annapolis. We gather at about 5:30 PM and order dinner about 6. We break up usually before 8 PM. E-Mail [K2YWE](#) to be put on the e-mail reminder list.

PVRC-NC: The **PVRC-NC East** chapter meetings are held at [Manchester's Bar and Grill](#) on the 9100 block of Leesville Rd. in North Raleigh, with "QRM" beginning at 6:00pm and the dinner meeting following shortly thereafter. The meeting is held monthly on the 1st Thursday of most months, cancellations or changes usually announced on the [PVRC-NC website](#).

The **PVRC-NC West** chapter meets the 3rd Monday of each month (except December) at about 7:00 PM at Hams Restaurant, 414 S. Stratford Rd., Winston-Salem on the south end of the Thruway Shopping Center. We meet in the front meeting room of the restaurant. A wide variety of cold 801s and Sports bar menu available. Contact Henry Heidtmann [W2DZO](#), full info at <http://www.w4nc.com>

Over the Hill Bunch: The group meets for lunch at noon alternately in Maryland at the Sir Walter Raleigh Inn 6323 Greenbelt Rd, Berwyn Heights, MD or in Virginia at Anthony's restaurant in Falls Church. Meetings generally are held on the last Wednesday of the month and are subject to change. Meetings are announced by email.

All PVRC members, non-members interested in membership and guests are welcome. For information contact Roger Stephens, [K5VRX](#), 703-658-3991 for Virginia meetings; or Cliff Bedore [W3CB](#) or get on 147.00 for Maryland meetings.

Downtown Lunch Group: Meets: At 12 o'clock noon on the first Wednesday of every month in Downtown DC.

Location: R.F.D. Washington, 810 7th St., N.W. Washington - Metro (Green Line) at Gallery Place Station

Meeting since April 2005, PVRC'ers, contesters, DX'ers, and others coming through this area have been meeting for lunch in the Metro Center area of downtown Washington, DC. If you give him enough notice, regular attendee Fred, K3ZO, may bring you your 3-land QSL bureau cards! We invite and encourage you to join us every month for good food, good company, and good conversation. If you have any questions feel free to email or call W3DQ or our co-convenor, Rich NN3W. Hope you can join us!

Southwest VA Chapter: The Southwest VA group meets each Wednesday at about 8:30 AM at Hardees at 20265 Timberlake Road in Lynchburg, VA. This is an informal gathering, but normally has about 10-12 attendees. Contact Mark Sihlanick N2QT, Tel: 434-525-2921

Eastern Shore Chapter: Meets every three months, on the second Saturday of April, July, October and January at noon. In keeping with the tradition established by SK Dallas W3PP we will also meet at the contest station of Eric WG3J one hour before the start of most major contests. Contact Eric Hudson [WG3J](#)

Location: Delmar Pizza, north west corner of the intersection of highways 13 and 54 in Delmar, DE

Southern Maryland Chapter: Currently on hiatus, if interested in meeting contact the Chapter Chair, Tom Shelton, [ND3N](#) via email or (240) 434-3811

Colonial Capital Chapter: Meets the 2nd Thursday of each month at 8:30 am
Location: Hot Stacks Restaurant, 6495 Richmond Rd, Williamsburg, VA 23188
757-565-1105

Contact: Bill Conkling [NR4C](#)

The Tidewater Chapter meets the 3rd Tuesday of every month at Frankie's Place for Ribs located in the Fairfield Shopping Center on the corner of Kempsville Road and Providence Road in Virginia Beach. The meeting starts at 7:00 PM. All amateurs are invited.

Contact either Chapter Chair: Don Lynch, [W4YZT](#), or Ron Young, [W8RJL](#)

If you'd like to add or correct a listing, contact [K3TN](#) for inclusion in the Newsletter!

Now a Word From Our Sponsors

PVRC doesn't ask for dues, but the Club does have expenses. You can also support the Club by buying from the firms listed who advertise in the newsletter!

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By Scott KA9FOX

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- <http://www.QTH.com>



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DX Engineering is Your #1 Source for Antennas!

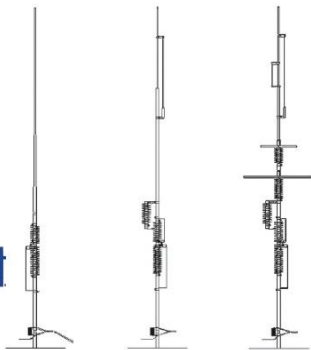
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Skyhawk™ and Skylark Multi-Band Yagi Antennas

The 20/15/10M Skyhawk features a trap free design to provide the best bandwidth and lowest loss. The use of aluminum and stainless steel hardware keeps the overall weight down to only 75 pounds.

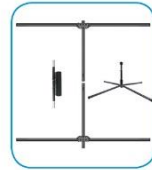
The 17/12M Skylark has no moving parts, making it extremely reliable and easy to install. It requires no tuning, so you can switch bands in an instant.



HF Vertical Antennas

DX Engineering's Butternut Antennas line boasts three renowned designs, including 2-band, 6-band, and 9-band vertical antennas. The antennas' compact size makes them easy to install, yet they will deliver outstanding performance on each band. DX Engineering also carries repair, add-on, and replacement parts for Butternut Antennas.

DX ENGINEERING



TransWorld Antenna Packages

The famed TransWorld Antenna is small and portable, yet offers exceptional performance.

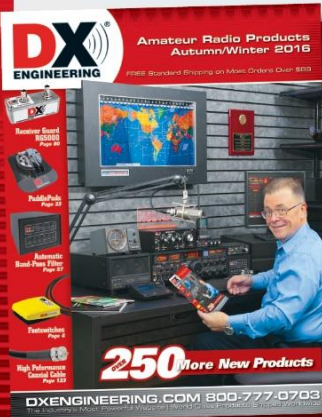
DX Engineering has purchased TW Antennas to ensure the TransWorld Antenna will continue to be available as a DX Engineering product. We've bundled them together in packages based on different operating setups. Search keyword "TransWorld" at DXEngineering.com to learn more.



HF and VHF Antennas

Contesters have been clamoring for rugged, high performance antennas that won't break the bank. EAntenna's Yagi and dipole antenna designs deliver on all three fronts. These HF and VHF antennas can be found in some of Europe's most competitive stations, and now you can get them for your installation from DX Engineering.

YAESU **ICOM** **KENWOOD** **ALINCO**



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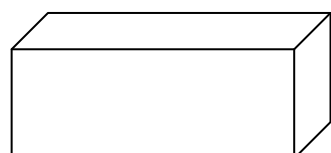
Attention: Contesters

7 Big Problems that are Probably Affecting Your Scores Right Now!

and

How The RF Connection's Mike-Link and
Shure® Legendary Performance™ Broadcast Headsets

Solve them ALL!



Your Radio

Mic/PTT cable
RX Audio: L/R cable
From Footswitch



The RF Connection's
Mike-Link

Headset cable



Shure BRH440M
Broadcast Headset

Problem #1: Foot Not Near Footswitch, QSO Missed

Solution #1

Use Your Finger Instead!

- Mike-Link finger-touch PTT
- Momentary SPST switch
- Positive tactile feel



Problem #5: Operating CW, you have a "pain in the head" after "Y" hours on-air

Solution #5 - Use Mike-Link

Periodically, Flip the Reverse/Inphase Audio Switch

- Reverses mono audio source for greater listening pleasure



Problem #2: You wear eyeglasses and you have a "pain in the temple" after "X" hours on-air

Problem #3: Brand 'Z' comfortable headset solves problem #2, BUT increases external background noise

Solutions #2 & #3

Use Shure BRM440M
Broadcast Headset

- External background noise isolating
- Closed back—noise isolating
- Gamer-style, circumaural (over-the-ear) ear cup pads



Problem #6: Special microphone is needed for your ICOM radio

Problem #7: External batteries needed when your ICOM-specific headset is used with other radio brands

Solutions #6 & #7

Use Mike-Link & Shure BRM440M

- Built-in, user-selectable, Active ICOM pre-amp
- External power/battery NOT required
- Built-in, user-selectable mic input impedance 2.5K or 10k

Problem #4: "RF in your mic audio OM!"

Solution #4 - Use Mike-Link

Ferrite RF suppression chokes included on:

- microphone audio
- receiver audio
- PTT

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"The R.F. Connection's 'Mike-Link' and
Shure® Legendary Performance™
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IC-9100 | The All-Round Transceiver

• HF/50MHz 144/430 (440) MHz and 1200MHz*1 coverage • 100W on HF/50/144MHz, 75W on 430 (440) MHz, 10W on 1200MHz*1 • Double superheterodyne with image rejection mixer



IC-718 | HF Transceiver

• 160-10M* • 100W • 12V operation • Simple to use • CW Keyer Built-in • One touch band switching • Direct frequency input • VOX Built-in • Band stacking register • IF shift • 101 memories



IC-PW1 | HF/50 MHz Amplifier

• Wide freq. coverage - 1 kW from 1.8 MHz to 50 MHz (amateur bands only) • Wide ALC adjustable range • Full duty cycle • Auto antenna tuner built-in • Auto AC input voltage selector is employed • Current (Ip), Voltage (Vp), temperature, SWR and output power protectors are available



IC-7851 | HF/50MHz Transceiver

• 1.2kHz "Optimum" roofing filter • New local oscillator design • Improved phase noise • Improved spectrum scope • Dual scope function • Enhanced mouse operation for spectrum scope • More features



IC-7100 | All Mode Transceiver

• HF/50/144/430/440 MHz Multi-band, Multi-mode, IF DSP • D-STAR DV Mode (Digital Voice + Data) • Intuitive Touch Screen Interface • Built-in RTTY Functions



ID-880H | Analog+Digital Dual Bander D-STAR

• D-STAR DV mode operation • DR (D-STAR repeater) mode • Free software download • GPS A mode for easy D-PRS operation • One touch reply button (DV mode) • Wideband receiver **D-STAR ready**



IC-7700 | HF/50MHz Transceiver

The Contesters Rig • HF + 6m operation • +40dBm ultra high intercept point • IF DSP, user defined filters • 200W output power full duty cycle • Digital voice recorder



IC-2730A | VHF/UHF Dual Band Transceiver

• VHF/VHF, UHF/UHF simultaneous receive • 50 watts of output on VHF and UHF • Optional VS-3 Bluetooth® headset • Easy-to-See large white backlight LCD • Controller attachment to the main Unit with optional MBA-4 • Wideband receiver



IC-V80 | HD 2 Meter FM Transceiver

• Tough construction • 750mW loud audio • Powerful 5.5W of output power • IP54 and MIL-STD-810 rugged construction • Built-in CTCSS/DTCS • WX channel & weather alert function



IC-7600 | All Mode Transceiver

• 100W HF/6m Transceiver, gen cov. receiver • Dual DSP 32 bit • Three roofing filters- 3, 6, 15khz • 5.8 in WQVGA TFT display • Hi-res real time spectrum scope



IC-2300H | VHF FM Transceiver

• 65W RF Output Power • 4.5W Audio Output • MIL-STD 810 G Specifications • 207 alphanumeric Memory Channels • Built-in CTCSS/DTCS Encode/Decode • DMS

ID-51A Plus | VHF/UHF Dual Band Xcvr

• 5/2.5/1.0/0.5/0.1W Output • RX: 0.52-1.71, 88-174, 380-479 MHz** • AM/FM/FM-N/WFM/DV • 1304 Alphanumeric Memory Chls • Integrated GPS • D-STAR Repeater Directory • IPX7 Submersible **D-STAR ready**



IC-7300 | HF/50MHz Transceiver

• RF Direct Sampling System • New "IP+" Function • Class Leading RMDR and Phase Noise Characteristics • 15 Discrete Band-Pass Filters • Built-In Automatic Antenna Tuner • Large Touch Screen Color TFT LCD



ID-5100A Deluxe | VHF/UHF Dual Band Digital Xcvr

• Analog FM/D-Star DV Mode • SD Card Slot for Voice & Data Storage • 50W Output on VHF/UHF Bands • Integrated GPS Receiver • AM Airband Dualwatch • FM Analog/DV Repeater List Function



ID-51A PLUS2 | VHF/UHF D-STAR Portable

• RS-MS1A, free download Android™ application • New modes for extended D-STAR coverage • Terminal Mode & Access Point Mode allow D-STAR operation through Internet • DV & FM repeater search function • Dplus reflector link commands



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FTDX5000MP Limited | 200W HF + 6M Txcvr

• Internal Power Supply • Two Totally Independent Receivers • Super Sharp "Roofing" Filters • High Performance Yaesu Custom-designed 32-bit Floating Point DSP • True Analog Meter Precision



FT-817ND | HF/VHF/UHF All Mode Portable Transceiver

Ultra Compact HF/VHF/UHF Multimode Rig • Wide Receiver Frequency Coverage • Two Antenna Connectors for Ease of Installation Front/Back • Outstanding CW Features • Versatile, Easy-To-See LCD Display • High Performance CollinsR Mechanical Filter Options • Internal Battery Power



FTM-400XD | 2M/440 Mobile

• Color display-green, blue, orange, purple, gray • GPS/APRS • Packet 1200/9600 bd ready • Spectrum scope • Bluetooth • MicroSD slot • 500 memory per band



FTDX3000 | 100W HF + 6M Transceiver

• 100 Watt HF/6 Meters • Large and wide color LCD display • High Speed Spectrum Scope built-in • 32 bit high speed DSP /Down Conversion 1st IF **Call For Low Pricing!**



FREE
YSK-857

FT-857D | Ultra Compact HF/VHF/UHF

• 100w HF/6M, 50W 2M, 20W UHF • DSP included • 32 color display • 200 mems • Detachable front panel (YSK-857 required)

Call For Our Low Price!



FT1XD | 144/430 5W Digital Transceiver

• C4FM/FDMA • 1200/9600bps AX.25 APRS & GPS Recvr Built-in • Dual Band Operation w/Dual Receivers (V+V/U+V/V+U) • Wideband Receive/AM Bar Antenna/Aircraft Receive • 1266 Memory Channels w/16 Char Alpha Tagging



FT-991A | HF/VHF/UHF All Mode Transceiver

Real-time Spectrum Scope with Automatic Scope Control • Multi-color waterfall display • State of the art 32-bit Digital Signal Processing System • 3kHz Roofing Filter for enhanced performance • 3.5 Inch Full Color TFT USB Capable • Internal Automatic Antenna Tuner • High Accuracy TCXO



FT-2900R | Heavy-Duty 75W 2M FM Transceiver

• Massive heatsink guarantees 75 watts of solid RF power • Loud 3 watts of audio output for noisy environments • Large 6 digit backlit LCD display for excellent visibility • 200 memory channels for serious users

FT-2DR | C4FM/FM 144/430 MHz Txcvr

• Analog/C4FM Dual Monitor (V+V/U+U/V+U) • System Fusion compatible • 1200/9600 APRS Data Communications • Integrated 66ch High Sensitivity GPS • Wide Band Receiver • Snapshot Picture Taking Capability With Optional MH-85A11U



FTDX1200 | 100W HF + 6M Transceiver

• Triple Conversion Receiver With 32-bit Floating Point DSP • 40 MHz 1st IF with selectable 3 kHz, 6kHz & 15 kHz Roofing Filters • Optional FFT-1 Supports AF-FFT Scope, RTTY/PSK31 Encode/Decode, CW Decode/Auto Zero-In • Full Color 4.3" TFT Display



FTM-100DR | C4FM FDMA/FM 144/430 MHz Txcvr

• Power Packed System Fusion Transceiver • High Audio Output Power • Rugged Powerful Transmitter • Integrated 66ch High Sensitivity GPS • 1200/9600 APRS Data Communications • Voice Guide and Recording Function *Optional FVS-2 Required • Digital Group Monitor (GM) Function • Digital Clock & Timer Functions



VX-8DR | 50/144/220/440

50/144/220/440 • 5W (1W 222 MHz) • Bluetooth optional • Waterproof/ submersible (3' for 30 min) • GPS APRS operation optional • Li-ion Hi-capacity battery • Wide band Rx

FT-60R | 2M/440 5W HT

• Wide receiver coverage • AM air band receive • 1000 memory channels w/alpha labels • Huge LCD display • Rugged die-cast, water resistant case • NOAA severe weather alert with alert scan



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TS-990S | 200W HF + 6M Transceiver

- World's first dual TFT display • 200W output on all bands • ±0.1ppm TCXO ensures both high stability and reduced power consumption • Triple 32-bit DSP's dedicated to main/sub receivers and band scope • Main receiver employs full down conversion, new mixer & narrow band roofing filters • Third order intercept point (IP3) +40dBm for highest level of RX performance (main receiver)

Call For Special Price!



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COUPON

TM-D710G | 2M/440 Dualband

- V+V/V+U/U+U operation • Built-in GPS • Built-in TNC for APRS & DX-Cluster operation • 50W 2M & UHF • 1,000 memories • Dual receive • Green or amber backlight colors • Latest APRS firmware w/new features • Sky Command II remote functions

Call For Special Price!



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TS-480SAT/HX | HF + 6M Transceiver

- 480HX 200W HF & 100W 6M (no tuner) • 480SAT 100W HF & 6M w/AT • Remotable w/front panel/speaker • DSP built-in

Call Now For Low Price!



\$300
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COUPON

TS-590SG | HF/50MHz Transceiver

- Equipped with 500 Hz/2.7 kHz roofing filter as standard • ALC derived from TS-990S eliminating spike issues • Antenna output function (shared with DRV connector) • CW - morse code decoder function • Improved 1st mixer • New PFB key with multi-function knob • New split function enabling quick setting • LED backlight with selectable color tone



\$25
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COUPON

TM-V71A | 2M/440 DualBand

- High RF output (50W) • Multiple Scan • Dual receive on same band (VxV, UxU) • Echolink® memory (auto dialer) • Echolink® Sysop mode for node terminal ops • Invertible front panel • Choice of green/amber for LCD panel • 104 code digital code squelch • "Five in One" programmable memory • 1000 multifunction memory

Call Now For Your Low Price!



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COUPON

TH-D72A | 2M/440 HT w/extended RX

- 5W TX, RX 118-524 MHz, VxU, VxV, UxU • APRS w/built-in 1200/9600 TNC • Built-in GPS, Built-in USB, digipeater • Echolink® compatible, • Mil-Spec STD810

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TS-2000

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TS-2000X

TS-2000/2000X | HF/VHF/UHF Transceiver

- 100W HF, 6M, 2M • 50W 70CM • TS-2000X 10W 1.2GHz
- Built-in TNC, DX packet cluster • IF Stage DSP • Backlit front key panel

Call For Special Price!



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TM-281A | 2 Mtr Mobile

- 65 Watt • 200 Memories • CTCSS/DCS • Mil-Std specs • Hi-quality audio

Call For Special Low Price!



TH-D74A | 2M/220/440 HT w/D-STAR!

- D-STAR compatible • APRS ready w/built in GPS • Color weather station information • Built-in KISS mode TNC • High-performance DSP voice processing • Standard compatibility for Bluetooth

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TH-K20A | 2M Handheld

- 2M 5.5W • VOX • CTCSS/DCS/1750 Burst built-in • Weather alert

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MA-550

- 55' Tubular Tower • Handles 10 sq. ft. at 50 mph • Pleases neighbors with tubular streamlined look

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All US Towers shipped by truck; freight charges additional.



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- 55' freestanding crank-up • Handles 18 sq. ft. @ 50 mph • No guying required • Extra-strength construction • Can add raising and motor drive accessory • Towers rated to EIA specifications • Other models available at great prices!



218XATC-PL-(length) RG8x (240UF) w/PL259 Connectors Each End. Weather-Proof Heat Shrink Tubing.

- Stranded Center Conductor.
- 95% TC Braid + bonded 100% Foil Shield.
- Very Flexible, Light Weight, and Smaller than RG8 sizes.
- Non-Contaminating-UV Resistant-Direct Burial-Black Jacket.



233/2-G4-(length).

- Unique design (Nickel Grommets 4" Spacing) allows for easy attachment to a vehicle's body or truck bed to create a "ground-plane".
- Good option as a "buss-bar" in the shack.
- 1/2" wide tinned copper 38x48x8/384 10ga 53 Amps.
- Stocked in 1.5', 3', 5', and 10' foot lengths.



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The Premier Sound Card Modem!

- Quiet - hear what others miss!
- Proven USB Sound Card built-in
- Precise FSK & Winkeyer CW on board
- Complete - Six FTDI COM ports
- Universal Rig Control for every radio
- Works well with HRD, M110A, Fldigi, WSJT & many more software programs
- Front-Panel Audio & CW controls
- USB connected and powered
- Convenient - No annoying jumpers!



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