



PVRC Newsletter

May 2017

President's Letter – Bud W3LL

Hello PVRC,

It took three shots of high pressure steam before we could get the old Tecumseh engine turning on its own. The heavy flywheel made up for the occasional misfires. Our chief Engineer reported it would be a few more hours before temperatures stabilized enough to allow putting a light load on the old girl. We need enough way on to get the barn door rudder to bite getting us back on course.

So what happened?

It was during a routine overhaul mandated by BUSHIPS when things started to go terribly wrong. The chief engineer and enginemen were confident they could do the overhaul without having to go into dry dock and enter a state of cold iron.

To compound the difficulty doing an overhaul while at sea, the snipes managed to let smelly contaminated lube oil leak into the pristine bilge. Fortunately they were clever enough to get it cleaned up without leaving a sheen on the surrounding seas.

So, not much progress to report this month. Our release schedule will fall back one month without having any critical impact.

A delay of one month in the introduction to the successor to the 20 For 20 award means the announcement will likely fall after the end of the 5M contest season. No big deal. The introduction of the Achievement award, otherwise known internally as the triple tiered Olympic award – or whatever the officers choose to call the final release will be delayed. This award program has my juices flowing. It has the makings of a block buster.

The only introduction that has a hard stop on the schedule is the Reunion update celebrating our 70th anniversary. Tim is working on the programming to have the exchange mimic the SS exchange. The exchange may go something like this' depending on what Tim can pull off:

His Call – QSO# - License Class - Year Joined - Ur Call - Chapter Initials

NC = No Chapter

OC = Out Of Circle

Don't worry if you don't understand the hieroglyphics. It will be explained better when the code becomes hard copy.

The best part of this column is looking back over the past month and seeing all the achievements you our members have accomplished in the contesting ring. So, on to the Sports Page.

The WPX SSB contest was a good model for the conditions we will have for this part of the sunspot cycle. 20M and 40M are the money bands, and good openings on 80M are anxiously hoped for! 15M is a tough go to rack up whatever Q's and mults are to be had there. And 10M? A memory...

But PVRC participation continues to go up year over year. This year, there were 49 SO entries and 7 multiops with another 25 or so members, vs. 31 SO and 6 multiops with 24 operators last year.

So far on 3830, it looks like team WX3B pulled off another top spot in M/M for the US, even though the score was down a good bit from last year. In M/2 HP, team KG4USN at W3EKL is well in the top ten US with a score of 4.5M. There were 5 PVRC multi singles, with N3QE taking what appears to be the second spot in the US with 9.2M. Other multi singles were by K3CCR, N3AFT (at N3WZR) NR4C and KE3X.

In the competitive SO (A) AB HP category, K3ZU, W3LL and N4RV all made the top ten US (with places of 1,2 and 5 respectively. N9NB was in the top 10 US in SO (A) AB LP. Sitting atop the US SO (A) AB (TS) HP (tribander/wires) is the redoubtable W4MYA (at W4ML) with over 3.5M. Reports are that Bob "ran 'em."

The other big boy category – SO AB HP - saw K3ZO put up a top ten US score of 4.7M despite not feeling well with stomach flu. Reports are that Fred "ran 'em" too, so to speak.

KQ4LA made the top ten US in SO AB LP. WB2ZAB put up a nice core in SO SB 40 HP with almost 400K. N3KS operating his station at TI5W made 2499 QSO for 11.4M in SO SB 40 HP (a very competitive category).

Other nice PVRC scores not already mentioned were by KE4S in SO (A) AB HP (and let the record show that Dave set the pace for spotting during this contest - a huge courtesy to others – way to go, Dave!), K3ZJ (signing WR8AA) in SOAB HP, N4CF in SO AB LP, and N3XSF in SO AB (TS) HP. K3RA managed to put up 1.4M between family events.

Stand by to the upcoming CW version of what N3QE refers to as “the weird prefix contest.”

We are now in the two-month lull between 5M contests between WPX SSB and WPX CW, but PVRC’ers are keeping busy with whatever smaller contest they can find.

The VA QSO party is a priority for a lot of PVRC members. Although he entered as a member of his local club, K1HTV deserves a shout out for a fabulous score – making 733 QSO’s for 233K, which appears to be the top score in any category. There were 12 PVRC entries reported on 3830, with K4S (K1SE), K3CCR, N3KN, N4MM and NN4RB all reporting more than 100 QSO’s.

KG4USN (at WA3EKL) and N8II each made over 100 QSO in the GA QSO party. Other PVRC entries in that one were N4CW, K4HQB and K3MAW.

K4GMH, KS0CW and K000 (at W3RFC) all played in the EA RTTY contest. K4GMH took #1 US in SOAB LP with 366 QSO.

K000 at WA3EKL did the Yuri Gagarin contest putting up 189 QSO. Kudos to team WA3EKL for keeping that station active all the time.

Have fun in WPX CW during Memorial Day weekend. That’s a wrap for this month.

73, Bud W3LL



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PVRC Website: http://www.pvrc.org			

ARRL 2015 160M Club Championship Gavel - Mark N2QT



Mark N2QT and George N4UA presenting the 2015 ARRL 160M Contest Club Championship gavel.

Blue Ridge Hams Chapter Chows Down at Smokin' Willy – Mike W4AAW



Clockwise from front center: W6IHG, KE4S, N4PD, K4LJH, W4AU, W3IP, KF4EKA, KI4BNS, K4GJF(hidden), N4MM, N4RA, W2YE, N1RM (not shown, photographer W4AAW)

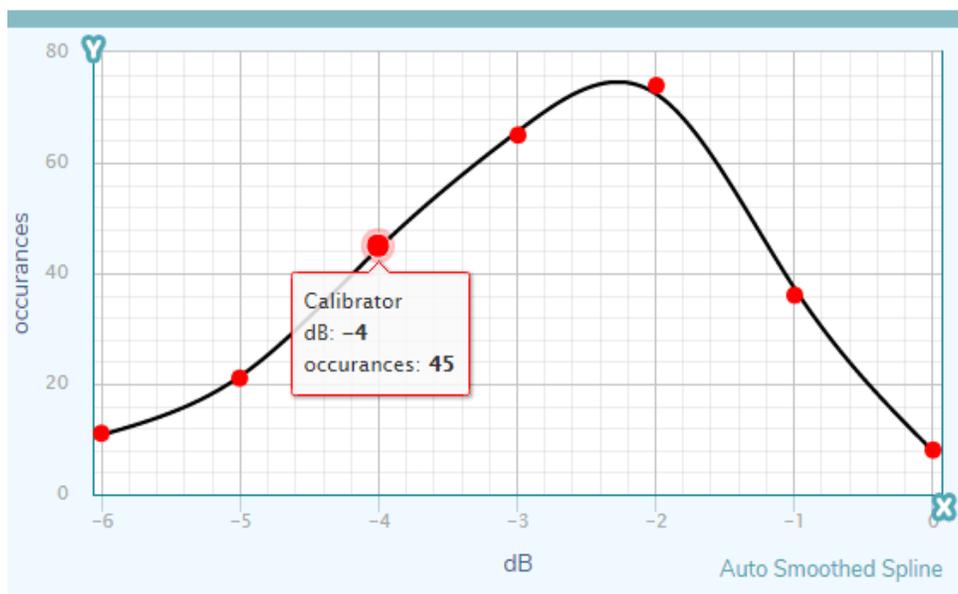
Antenna Testing Using WSPR – Frank W3LPL

I did some comparative antenna testing using a pair of 200 milliwatt WSPR (Weak Signal Propagation Reporter) transmitters attached to two different antenna systems. The detailed test data contains ten pairs of charts displaying the SNR measurements made by ten WSPR receivers in Europe.

One WSPRlite transmitter feeds a 6 element 20 meter Yagi at 135 feet and the other WSPRlite feeds a 6 element 20 meter Yagi at 150 feet. The higher Yagi is 210 feet behind -- and pointing directly through -- the front Yagi.

Ten days ago I recommended an improvement to the WSPRlite firmware which has dramatically increased the number of simultaneous WSPRlite transmissions by my two WSPRlite transmitters. This results in a big increase in the number of simultaneous SNR reports in Europe. I've also changed my analytic technique to statistics based analysis now that I have many more simultaneous SNR reports.

Statistical analysis of the SNR reports allows quantitative antenna performance assessment despite spread in the SNR reports caused by uncorrelated ionospheric resulting from the three wavelength spacing between the two Yagis under test. Below is my statistical analysis of 270 SNR reports from WSPR receivers in Europe that produced simultaneous SNR reports of the two WSPRlite 200 milliwatt transmitters at W3LPL over a four hour period on the morning of April 24th:



I'm sure that part of the 2.3 dB difference is excessive loss in the feedline to the 150 foot high Yagi. I'll perform some feed line loss measurements soon.

Contact me via [email](#) if you'd like a copy of the full data set.



This is the [WSPRlite](#) transmitter being used in the tests, there's a whole lotta fun packed in this tiny box! It costs \$90 shipped to USA including the optional USB to Micro-USB jumper and a three foot SMA to male BNC adapter cable. [The RF Connection](#) in Gaithersburg is expected to have them in stock soon.

For very accurate performance evaluation, use a pair of co-located WSPRlite transmitters, one connected to the antenna being evaluated and another connected to a nearby antenna used as a reference. Start them simultaneously so that they transmit in synch during each pseudo-randomly selected two minute transmission windows.

CW OPS North American CW Weekend, June 2-4 – Don W4ZYT

The 2017 CWOPS CW Weekend will take place June 2-4 at the Fairview Park Marriott in Falls Church, Virginia. The weekend is open to all hams or others with an interest in CW or Morse code communication - FOC, CWOPS, SKCC, the Morse Operators Society, and FISTS. It is predominantly a social event and provides a great opportunity to connect with old friends, make new ones, and enjoy eyeball QSOs with folks you have worked on the bands for years. Details can be found [here](#).

Learning from the Competition – John K3TN

- Jim K9YC put together a great piece for NCCC on maximizing transmit audio punch while minimizing splatter and distortion. It ran in NCJ in 2016 but you can read it online here: [“Clean, Punchy, Competitive Contest Audio without Splatter”](#)
- Bud AA3B did a presentation to FRC on the basics of RTTY contesting and getting going using N1MM. You can view it [here](#).

Armed Forces Day Crossband Test – May 13

Frank W3LPL reports that PVRC will be operating on Saturday 13 May 1300Z to Sunday 14 May 0200Z from the site of the historic Naval High Power Radio Station on Greenbury Point across the Severn River from the Naval Academy, during the annual military/amateur radio communications tests held as part of Armed Forces Day. The operation will use the famous call sign NSS, which dates back to 1918 – history [here](#).

NSS will operate both CW and SSB on the following frequencies: 4,038.5 7,533.5 14,487 17,545 20,994 kHz QSL cards will be sent for all QSOs with NSS and the other participating military stations

The team needs help with antenna installation on Friday, as well as with on the air operations and take down on Saturday evening. Contact W3LPL via [email](#) to help out.

If you are not familiar with this long running event:

ANNUAL ARMED FORCES DAY CROSSBAND MILITARY/AMATEUR RADIO COMMUNICATIONS TEST (13 MAY 2017)

The Army, Air Force, Navy and Coast Guard are sponsoring the annual military/amateur radio communications tests in celebration of the 66th Anniversary of Armed Forces Day (AFD). The AFD Military/Amateur Crossband Communications Test is conducted 13 May 2017.

The annual celebration is a unique opportunity to test two way communications between Amateurs and military communicators authorized in 47 CFR 97.111, and features traditional military to amateur cross band SSB voice, Morse Code, practice using legacy interoperability waveforms, as well as an opportunity for Amateurs to utilize more modern military communications modes such as MIL-STD Serial PSK and Automatic Link Establishment (ALE).

These tests give Amateur Radio operators and Short Wave Listeners (SWL) an opportunity and a challenge to demonstrate their individual technical skills, and to receive recognition from the appropriate military radio station for their proven expertise.

Membership News – Tim N3QE

PVRC added several members in the few months – please welcome:

- Bill W3MSH in the Over the Hill Lunch Bunch Chapter.
- Alan N3DUE in the Northwest Chapter.
- Jim KG9LB in the Tidewater Chapter.

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

- May 6 – ARI DX
- May 13 – CQM DX
- May 13 – VOLTA RTTY
- May 20 – EA CW
- May 20 – Baltic Contest
- **May 27 – WPX CW**

Logs Due This Month

- May 2 – YU DX
- May 9 – JIDX
- May 9 – Yuri Gagarin
- May 16 - Manchester Mineira

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

The Editor's Last Word – John K3TN

The Dayton (well, Xenia) Hamvention is right around the corner. Look [here](#) for information on all the contesting-related events. Hope for a dry spell – if the ground is wet, they will limit parking and shuttle buses from remote parking will be required.

We are definitely into the solar doldrums – just think how exciting it will be around Field Day when you here a European signal breaking through despite the low solar indices...

Thanks to Frank W3LPL, Mark N2QT and Mike W4AAW once again for submissions for this month's newsletter. If you have any good contest or station stories or photos, or anything else – send to jpescatore at aol dot com.

From the PVRC Treasurer – Tom K3AJ

PVRC has chosen not to implement an annual Dues requirement. We depend on the generosity of all 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, May 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 May 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 May, 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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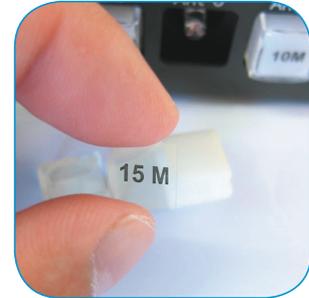
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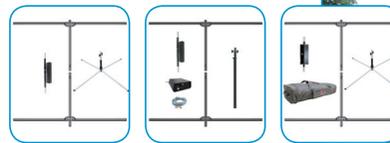
Hamplus makes innovative RF and control switching components tailored to the Amateur Radio community. The Hamplus line includes smart Control Consoles and Antenna Switches that can read data from the radio and memorize antenna selections. The company is based in Brazil, but now in an exclusive arrangement, North American operators can order Hamplus products through DX Engineering.



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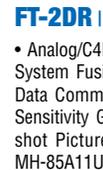
FT-991 | HF/50MHz/2M/440 Transceiver

- 160 M-440MHz - SSB/CW/FM/C4FM Digital/AM/RTTY/PSK • 100 W (2M/4440: 50 Watts) • 3.5" TFT full-color touch panel operation • High speed spectrum scope • Roofing filters: 3kHz & 15kHz • 32-bit high speed floating point IF DSP • 160-6 meter high speed automatic antenna tuner



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 • ± 0.1 ppm 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)

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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

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

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

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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



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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

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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

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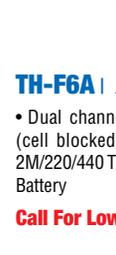


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TM-281A | 2 Mtr Mobile

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

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TH-F6A | 2M/220/440

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TH-K20A | 2M Handheld

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MA-40

- 40' Tubular Tower

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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.



TX-455

- 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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