# PVRC Newsletter
## December

**Newsletter Editor:** John K3TN jpescatore@aol.com
**Website:** http://www.pvrc.org
**Meeting Info:** http://www.pvrc.org/chapters.htm
**Facebook:** https://www.facebook.com/groups/PotomacValleyRadioClub/

### President's Letter – Doug AA3S

Special Recognition and Thanks

Over the years, I have operated at three (maybe four) multi-operator stations hosted by PVRC members and I operated multiple times at one or two of those stations. While operating at those multi-op stations I was contributing contest points to help PVRC win, learning new station technical skills, developing some new operating skills, sharing (but mostly receiving) knowledge with the operators, and developing camaraderie with my fellow ops. My experience is the norm for participating at a multiple operator station.

Look at our PVRC.org web page at the top and you will see that the items I listed above are essentially all of our Mission as a radio contest club. The multi-op stations embody the core mission of our club, all in one place, all at the same time.

In my examination of the PVRC 5M results for the previous 12 months for multiple-operator entries (of any variation), I found that many PVRC members have hosted 5M contest operations at least once from their station. They are listed below and all of them deserve much thanks and encouragement from all of us for advancing the state of Amateur Radio in general and benefiting PVRC in particular (my profuse apologies in advance if my tedious, manual search of the data inadvertently omitted someone):

- Mike Barts N4GU
- Steve Bookout NR4M
- Nick Clevenger KK4ODQ
- Frank Donovan W3LPL
- Susan Hoffmaster N3DPB
- Alan Hoffmaster WA3EKL
- Rob Katz K4OV
- Mark Killmon K4SO
- Joel Knoblock W3RFC
- Mike Kowalsky AC8Y
- Brian McGinness N3OC
- Jim Nitzberg WX3B
- Jack O'Mara W4NF
- Bill Perkins KC4D
- Ken Ramirez KP4AA
- Jack Reichert Jr N4RV
- Dave Sarault N3XF
- Tim Shoppa N3QE
- Frank Stein W4TG
- Jerome Svinicki K8LF
- Mike Trowbridge KA4RRU
- Tom Valenti K3AJ

Since this is the last Newsletter until 2024, may the New Year be even more rewarding for you than the old year.

Go PVRC!

## Club Competition – Doug AA3S

The ARRL 10m and 160m contests are in early December. Use our 5M calendar to start your planning for these! If you have tips for scoring big in these contests please post on our Reflector!

Again this month, I can't find any State QSO parties that have Club Competitions that PVRC could win. If you know of any, please let the rest of us know on our Reflector!

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| | | |
|---|---|---|
| President: | AA3S | Doug Hart |
| Vice President: | K3WA | Bill Axelrod |
| Vice President: | K8LF | Jerome Svinicki |
| Secretary: | N3QE | Tim Shoppa |
| Treasurer: | WA3AER | Ted Bauer |

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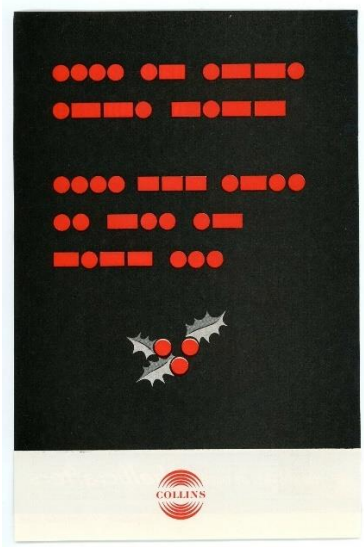
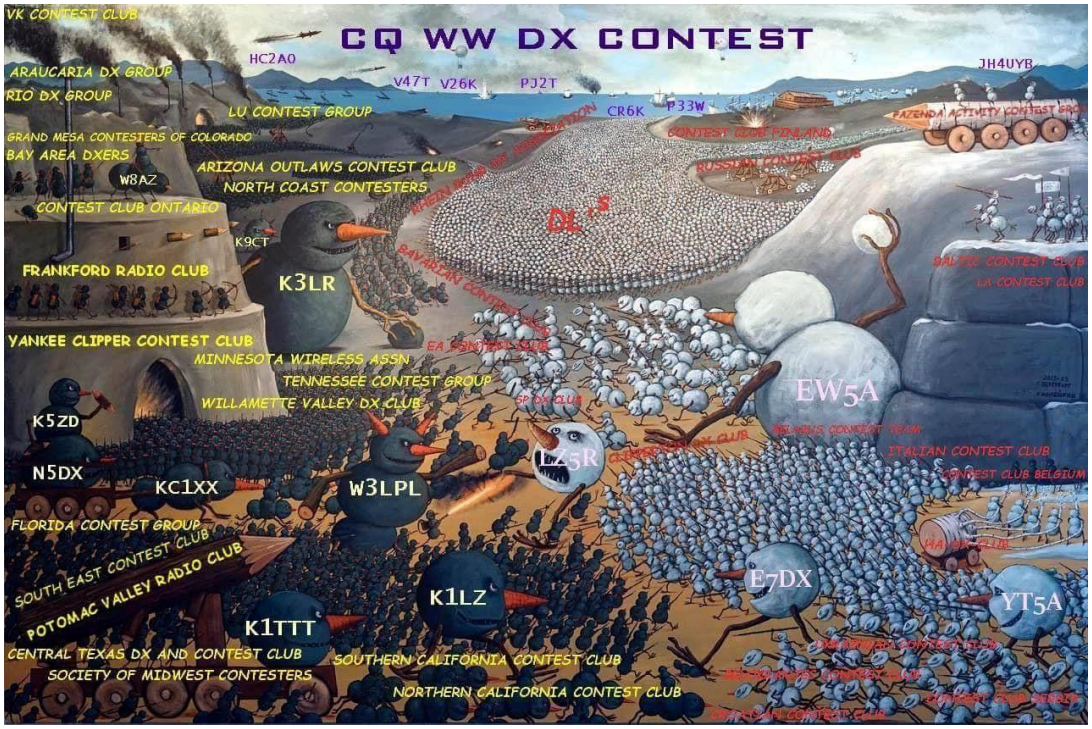



*QST 1967*

## CQ WW Contest Worldscape - Serge US0MF via CWOps Facebook Group




## Reverse Beacon Network Update: CQ WW CW – Pete N4ZR

**Quick update on RBN volume**: Our online stats show that we had over 250 nodes online during the contest. A fair number of those were only online for the contest; right now, we have 207, which seems to be about normal over the last couple of years. All told, 10,881,462 spots were posted during the contest, almost exactly the same as in 2022, an average of about 227,000 per hour, or about 63 per second.

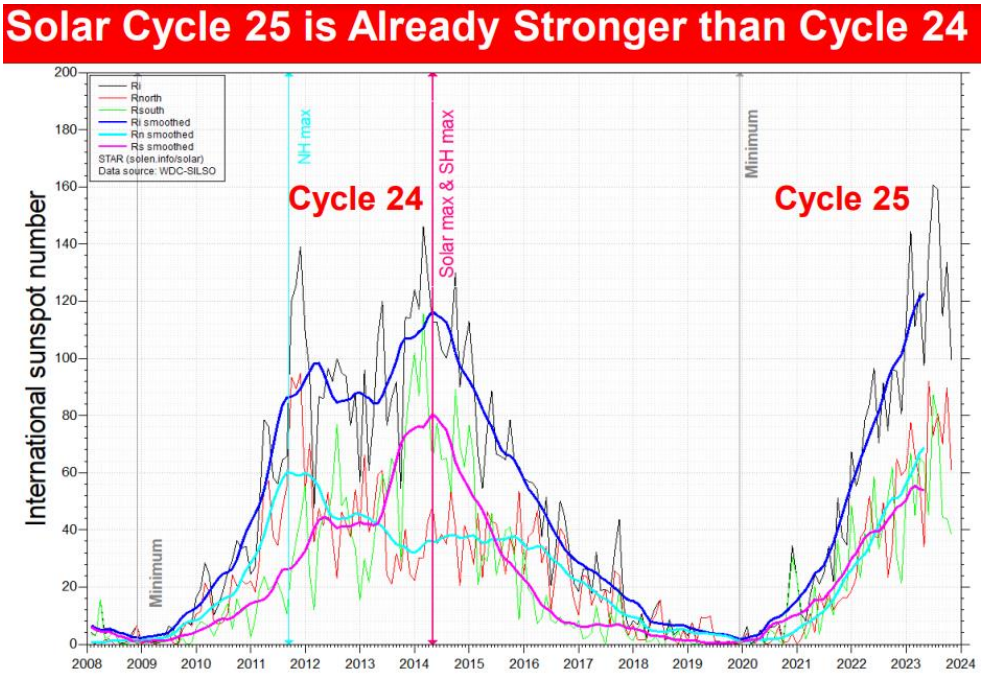
One topic that has become near and dear to my heart is reducing busted spots, even though the RBN averages better than 98 percent right. I got particularly interested because I was being busted often as TN4ZR, particularly during CWTs. With some experimentation, I found what seems like a solution for those (like me) using N1MM Logger. All I needed to do was insert a half-space character (~) between the word CWT and my call, so instead of sending CWT N4ZR, I was sending CWT ~N4ZR. The added delay is barely perceptible (to me), but it seems entirely to solve the problem – I ran for several hours during last weekend's CQWW, was spotted hundreds of times, with nary a "TN" in sight.

Limited data from CQWW suggest, though, that the extra half-space character may be less needed if what comes before the call is "TEST", which is one of the keywords CW Skimmer uses to identify a transmission as a "CQ" and therefore to be spotted. One big multi-op was spotted about 25,000 times each day and only ran into the "leading T" error about 0.6 percent of the time, while the problem in CWT, for me and others, had been as much as 2 percent. Ultimately, this suggests to me that the added half-space may be a good idea, regardless of where the "T" comes from.

## Take Advantage of Solar Cycle 25

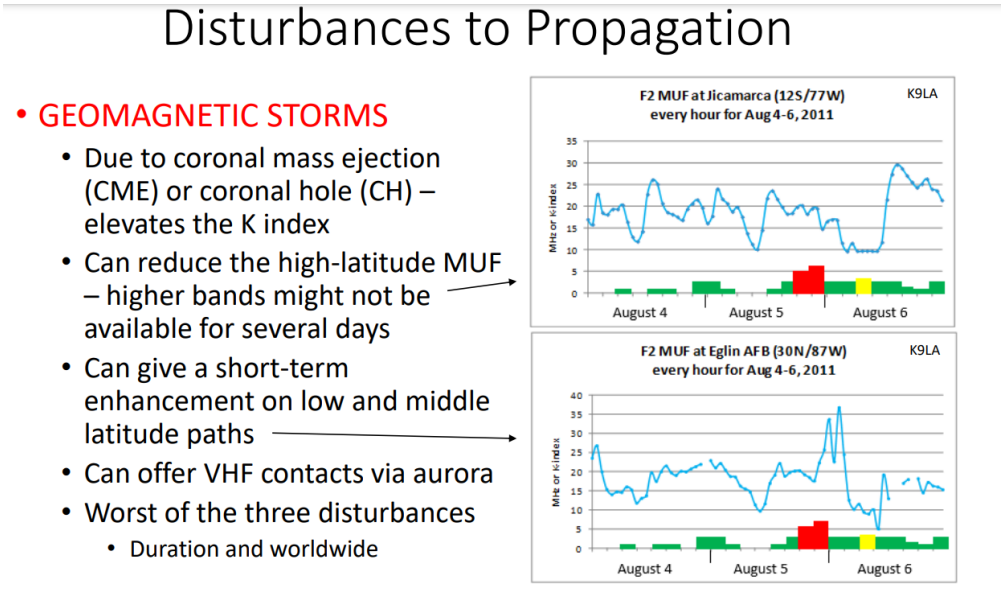
Frank W3LPL did an excellent Contest University presentation "How the Strongest Solar Maximum in 20 Years Affects Contest Planning and Execution".

Frank also presented an updated version at a PVRC NW meeting.




https://solen.info/solar/images/cycle24.png

Carl K9LA presented a Solar Cycle 25 update to the Madison DX Club. You can watch the video here or see the hard copy here.



## Photos From the NR4M Pigfest - Rich KE3Q

Lucy is a lovely dog allowed to run freely around the hamshack, friendly to all.

The 1956 Chevy is typically moved outside when Steve hosts his September open house, to clear that large garage completely for the 100 or more guests sitting around in chairs, but moved back inside otherwise.

It took 3 photos for me to scan the whole circle of the "Ratpackers" regional PVRC meeting, taking from my chair so I'm not in the photos. This is the hamshack and behind the ops in chairs are all the multi-multi operating positions, a run and mult station on most bands. Some bands just have one radio, but Steve says that's still a work in progress. Many may already know that Steve, NR4M was able to acquire the K3ZO 80M Yagi and Rohn 80 tower and presumably mast, rotator, the whole shebang, which he says he hopes to put up in 2024. Also, another tower (I think he said a 15M rotating tower) which I believe is going to be Rohn 65, as he continues to build out his superstation. Separate four-squares for 40, 80 and 160 also are very useful in addition to other antenna options -- the 40M one comparing favorably to the 4/4 Yagis on 40. There was also discussion by him of an 8 (or 9?) circle vertical array on 160 being superior to a 4-sq.

Apart from the M/M positions, the other side of the room has a nice collection of Drake, old Collins (not S-Line) -- 75A-4 type, R-390, etc. -and a few more Drake lines in a nearby closet.

## Antenna Raising at N3JT/4

Above: N3JT, WA8VSJ, K8BQ

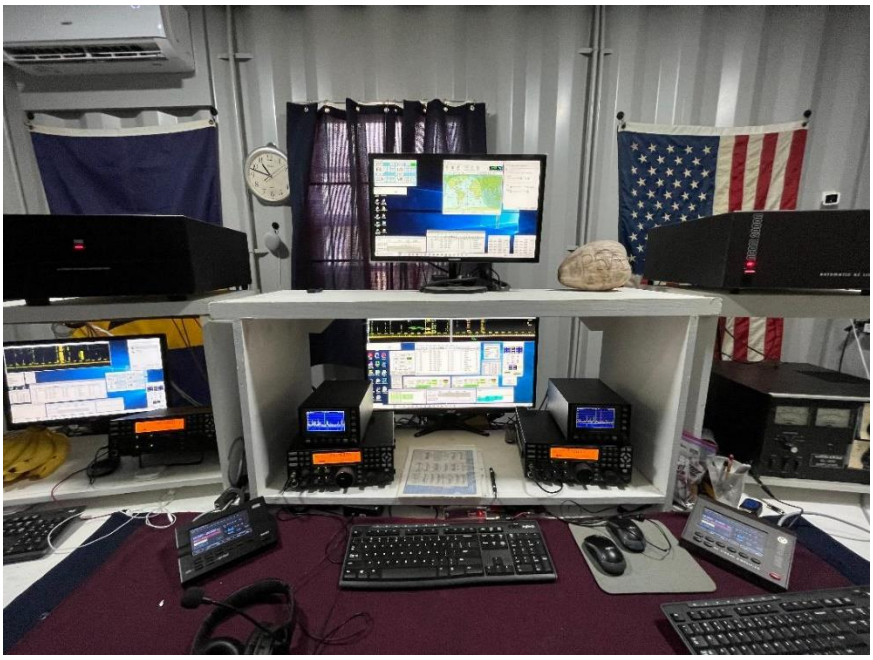
Right: K8BQ, N3JT, WA2ROA

The R9 went up today at our Florida QTH. The base mount was a problem at first. The mast of the antenna extended too far down below the lower bolts holding it to the mount. That meant upon lowering the mast past about 45 degrees the bottom of the mast would hit the ground post! A repositioning of the mast upwards by 3 inches fixed that. Another example of not envisioning things in advance!

All the bands look good for SWR except 40m and 80m. On 80m, it turns out it is resonant around 3615 kHz. No matter, since I don't think I've ever used the antenna on that band!

40m was weird. It was a near perfect 1:1 SWR across the entire 40m band. It looked like a perfect 50 Ohm resistive load. What was wrong? Turns out that for some reason the K4D was in split mode so as I tuned up the band and transmitted to check SWR I was still transmitting down at the bottom. Duh!

## SDR Use at 8P5A – Tom W2SC via the PVRC Reflector

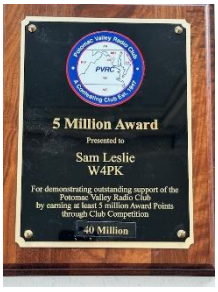


Here is a recent picture of 8P5A. The center radios are for SO2R. The one on the left has an RTL-SDR (was $30 at the time), and the one on the right is a funcube+. The third radio to the left is RX only and has a funcube+. Technically I don't need a K3 in that case, but the radio is already there to support M/2 (and a warm spare in case one of the others dies).

When running, I have the P3's in the time domain with a narrow view so I can see where the QRM is coming from. The waterfalls are usually wide to see the band.

## PVRC Bling

Here (R) is a photo of my plaque with the 40M sticker placed on it. I was also surprised to receive the bronze medal for 2023 at N2QT's informal chapter meeting at Hardee's! Both are really appreciated! - 73 Sam W4PK

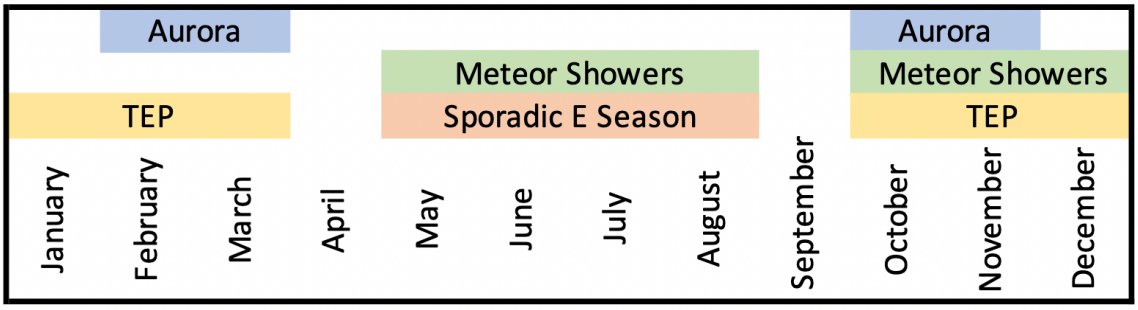


At Left, Ed N3CW is holding his newly awarded bronze medal over Dave N3AC's head, no doubt to inspire him to greatness in the future - Mark. N2QT

## PVRC 6 Meter DXCC Standings – Frank W3LPL

Below are the 6M DXCC totals for PVRC members, transcribed from the ARRL DXCC data as of the 20th of each month or so. Thanks to Frank for the data each month to make this a regular feature. Please report any omissions or errors to Frank.

| Call | DXCC | Call | DXCC | Call | DXCC |
|---|---|---|---|---|---|
| K1HTV | 174 | K2PLF | 133 | K3AJ | 110 |
| W4DR | 173 | KG7H | 133 | N3MK | 109 |
| W3BTX | 172 | K4SN | 131 | W4PK | 109 |
| AE3T | 166 | N4PY | 123 | K3KO | 108 |
| N4BAA | 165 | NW5E | 123 | N3NT | 108 |
| W3LPL | 163 | N4TL | 122 | KM3T | 108 |
| W3UR | 162 | K5VIP | 121 | N3OC | 107 |
| N4MM | 152 | AK3E | 120 | W2YE | 106 |
| AB3CV | 148 | W3XY | 120 | N4VA | 106 |
| W3LL | 146 | K3XA | 119 | N3DB | 103 |
| K4SO | 146 | W3DF | 117 | W3OR | 103 |
| W3KX | 144 | K3WC | 117 | K3ZO | 103 |
| K4CIA | 144 | ZP6CW | 116 | W4FQT | 102 |
| N2QT | 140 | N4JQQ | 115 | K6ND | 102 |
| WX4G | 140 | W0VTT | 114 | K1GG | 100 |
| K5EK | 137 | N4DB | 112 | W3XO | 100 |
| W3IP | 136 | W3EKT | 111 | W4TJ | 100 |
| K3SX | 136 | K5ESW | 111 | | |




From K5ND's "Guide to 6 Meter DXing"

## Membership News – Tim N3QE

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

## Upcoming Contests – from WA7BNM

| December 2023 | |
|---|---|
| + ARRL 160-Meter Contest | 2200Z, Dec 1 to 1600Z, Dec 3 |
| + ARRL 10-Meter Contest | 0000Z, Dec 9 to 2400Z, Dec 10 |
| + OK DX RTTY Contest | 0000Z-2400Z, Dec 16 |
| + ARRL Rookie Roundup, CW | 1800Z-2359Z, Dec 17 |
| + RAC Winter Contest | 0000Z-2359Z, Dec 30 |
| + YOTA Contest | 1200Z-2359Z, Dec 30 |
| + Stew Perry Topband Challenge | 1500Z, Dec 30 to 1500Z, Dec 31 |

**RED – scores count towards PVRC 5M Awards or Challenge Program**

## Editor's Last Word – John K3TN

Thanks to Sam W4PK, Mark N2QT, Frank W3LPL, Pete N4ZR, Jim N3JT, Rich KE3Q and Tom W2SC for contributions to this issue of the PVRC newsletter.

As W3LPL points out, we are at or near the peak of the current solar cycle – amazing conditions have become the norm. I've also recently retired, freeing up plenty of time to play on the radio – although new grandkids will consume a lot of that!.

Of course, just in time for the awesome conditions my Elecraft K3 and KPA1500 went kerblooey and are now taking an extended vacation in Watsonville CA. While waiting, through the magic of remote operating, I've enjoyed helping out the K3AJ remote multi and tried out the pricey pay for play remote superstations.

The quality and usefulness of the PVRC newsletter depends on contributions from members. If you have photos from club meetings, screenshots of new contest software, or writeups on station improvements or contest war stories, send them in any format to jpescatore at aol dot com.

## From the PVRC Treasurer – Ted WA3AER

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.

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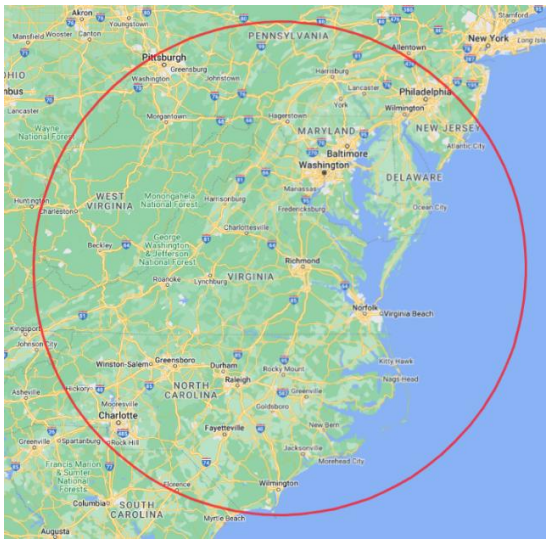
**Donations to PVRC are not tax deductible**

## Eyeball QSO Directions

The latest info on local club meetings and get togethers will always be sent out on the PVRC reflector and posted on the PVRC web site.



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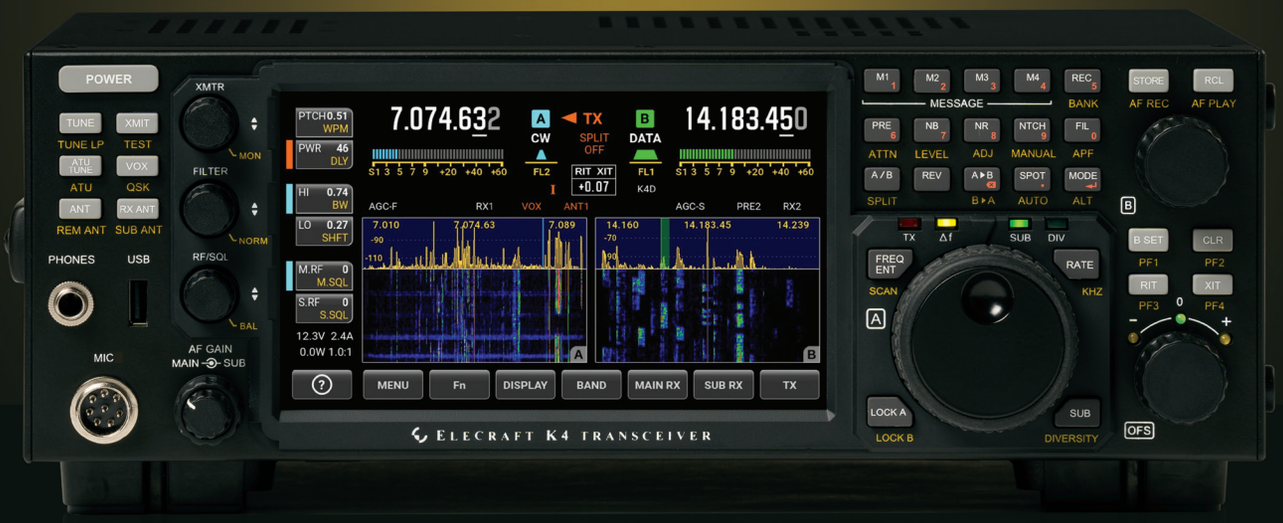
## High-Performance Direct-Sampling SDR




### A direct-sampling SDR you'll love to use

Our new K4 transceiver harnesses advanced signal processing while retaining the best aspects of the K3S and P3. It features a 7" touch display, plus a rich set of dedicated controls. Per-VFO transmit metering makes split mode foolproof. Band-stacking registers and per-receiver settings are versatile and intuitive. Control usage information is just one tap away thanks to a built-in help system.

### Modular, hybrid architecture adapts to your needs

The basic K4 covers 160-6 m, with dual receive on the same or different bands. The K4D adds diversity receive, with a full set of band-pass filters for the second receiver. (Thanks to direct RF sampling, there's no need for crystal filters in either the K4 or K4D.) The K4HD adds a dual superhet module for extreme-signal environments. Any K4 model can be upgraded to the next level, and future enhancements–such as a planned internal VHF/UHF module–can be added as needed.

### Single or dual panadapter, plus a high-resolution tuning aid

The main panadapter can be set up as single or dual. Separate from the main panadapter is our per-receiver *mini-pan* tuning aid, with a resampled bandwidth as narrow as +/- 1 kHz. You can turn it on by tapping either receiver's S-meter or by tapping on a signal of interest, then easily auto-spot or fine tune to the signal.

### Comprehensive I/O, plus full remote control

The K4's rear panel includes all the analog and digital I/O you'll ever need. All K-line accessories are supported, including amps, ATUs, and our K-Pod controller. The USB display output supports its own user-specified format. Via Ethernet, the K4 can be 100% remote controlled from a PC, notebook, tablet, or even another K4, with panadapter data included in all remote displays. Work the world from anywhere–in style!

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- Optimized for ease of use
- Modular, upgradeable design
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- ATU with 10:1+ range, 3 antenna jacks
- Up to 5 receive antenna sources
- Full remote control via Ethernet

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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

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## FT-2980R | *Heavy-Duty 80W 2M FM Transceiver*

• 80 watts of RF power • Large 6 digit backlit LCD display for excellent visibility • 200 memory channels for serious users

## FTM-200DR | *C4FM/FM 144/430MHz Dual Band*

• 1200/9600bps APRS® Data Communications • 2" High-Res Full-Color TFT Display • High-Speed Band Scope • Advanced C4FM Digital Mode • Voice Recording Function for TX/RX

## FTM-500DR | *C4FM/FM 144/430MHz Dual Band Xcvr*

• Front Firing Acoustically Enhanced Speaker System • True Dual Band Operation, C4FM/C4FM Digital D-D Dual Receive • 2.4" High-Resolution Full-Color Touch Panel Display • Built-in High Precision GPS Receiver • Wireless Operation Capability with Optional Bluetooth® Headset

## FT-70DR *C4FM/FM 144/430MHz Xcvr*

• System Fusion Compatible • Large Front Speaker delivers 700 mW of Loud Audio Output • Automatic Mode Select detects C4FM or Fm Analog and Switches Accordingly • Huge 1,105 Channel Memory Capacity • External DC Jack for DC Supply and Battery Charging

## FT-5DR *C4FM/FM 144/430 MHz Dual Band*

• High-Res Full-Color Touch Screen TFT LCD Display • Easy Hands-Free Operation w/Built-In Bluetooth© Unit • Built-In High Precision GPS Antenna • 1200/9600bps APRS Data Communications • Supports Simultaneous C4FM Digital • Micro SD Card Slot

## FT-65R | *144/430 MHz Transceiver*

Compact Commercial Grade Rugged Design • Large Front Speaker Delivers 1W of Powerful Clear Audio • 5 Watts of Reliable RF Power Within a compact Body • 3.5-Hour Rapid Charger Included • Large White LED Flashlight, Alarm and Quick Home Channel Access

## FTM-6000R | *50W VHF/UHF Mobile Transceiver*

• All New User Operating Interface-E2O-III (Easy to Operate-III) • Robust Speaker Delivers 3W of Clear, Crisp Receive Audio • Detachable Front Panel Can Be Mounted in Multiple Positions • Supports Optional Bluetooth® Wireless Operation Using the SSM-BT10 or a Commercially Available Bluetooth® Headset

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