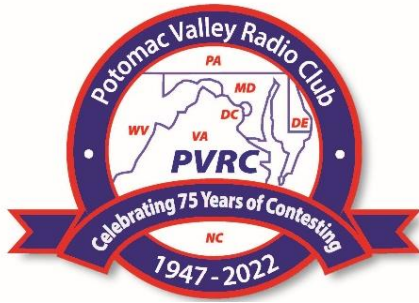




PVRC Newsletter

October

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 – Bill K3WA

And just like that – summer is over. Fall started out and the weather turned cooler. We find ourselves in the heart of the contest season. Four 5M contests this month. A good number of state QSO parties. And let's not forget football...

What more can we ask for? Well... sunspots for one. They're going, going, gone. The lack of the high bands, after some really great years, are equally going, going, gone. You know I've said this before: When those long afternoons grind on with poor conditions there's always a tendency to quit. Please remember that poor conditions affect everyone, not just us. Stick with it. Get all the Qs and mults you can. That's the effort it takes for PVRC to win - and winning contests R Us!

This month we have some great contests. One is Worked All Germany. We won the WAG US contest club competition for the last two years. Let's go for a threepeat. Lots of participation and lots of great DL operators make this one a blast.

We also have a new 5M contest – the California QSO party. PVRC does well in this contest. This is a fun contest with a large state and plenty of mults. So, to get our blood really moving in the cool fall weather, we offer double 5M points for the WAG and CA QSO Party.

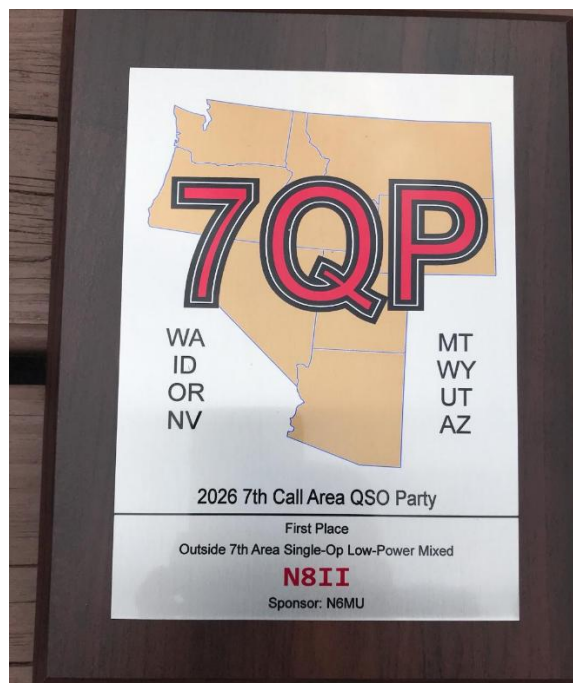
And lastly, after moving up to Maryland this past spring, I finally got a very modest antenna up, so you are likely to hear K3WA on the air again.

GO PVRC!73 and have fun... Bill K3WA

Urgent 7Q6UJ and Yuki K3ZB
at the Tokyo Ham Fair – via Don
K6ZO



PVRC Bling



Jeff set a new out of state record for the Kansas QSO Party with 705 QSOs and a county sweep. He thanks W0BH for his efforts both coordinating mobiles and operating mobile to make sweeps possible.

PVRC Officers:

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Newsletter Editor: John K3TN jpescatore@aol.com

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PVRC on Facebook: <https://www.facebook.com/groups/PotomacValleyRadioClub/>

DX Spider Filtering Scripts – Alan WA3EKL

Before you read though all the data presented below I want to give you some basic information on the DX Spider system that I have learned, though I am still learning this complex system. I want to share this with you so that you will be able to write at least some basic filters for each of the contests you participate in with minimal effort.

Highly important: If you copy and paste any of the scripts below from this article DO NOT USE Word. Use only Notepad or some type of Plain Text Editor. Word and similar “word processors” add hidden characters that the DX Spider Computer software will not process and will either corrupt or ignore your command lines. See the following Tool Tips article for details on using Notepad.

These are the DX Spider commands we presently use at WA3EKL/N3DPB:
accept, reject, reject not which can be abbreviated acc, rej, rej not.

acc, simply means, immediately pass or send out any data that satisfies this command line. rule.accept/spot is "Permissive" Think of this as a gatekeeper with a strict guest list. The moment you create a single accept line, the cluster slams the door shut on everything else in the world, only letting through exactly what matches that line.

rej, simply means, do not send out or pass any data that satisfy this command line but pass anything else AND before passing the data look for another command line; if another command line is not present pass the data on out; data meaning the spot in most cases. reject/spot is "Restrictive" Think of this as a gatekeeper with a blacklist. Everything in the world is allowed through by default unless it matches a specific reject.

rej not, simply means, do not reject anything in this command line or simply pass what is in the command line. AI says look at this gatekeeper as a Club Bouncer running an Exclusive VIP Guest List, but with a twist. Imagine a Nightclub Bouncer standing at the door. The bouncer is given a strict instruction: "Reject anyone whose name is NOT on this VIP list. The VIP List: has on it only three names: W, VE, and XE. A station from Germany (DL) walks up: Germany is NOT on the VIP list. Because they match the rule ("not on the list"), the bouncer rejects them and throws them in the trash. A station from Mexico (XE) walks up: Mexico IS on the list. Therefore, they do not match the rejection rule. The bouncer steps aside and lets them pass through the gate. The Bottom Line for Contesters: The "Reject Not" gatekeeper is a selective pass filter. It ruthlessly throws away the entire rest of the world, and only lets the chosen few on the list sneak past the gate. Using reject rules gives you maximum flexibility.

The DX Spider system processes Reject commands lines before Accept commands lines.

Use of both commands can accomplish the same purpose. Some people prefer acc because it seems less confusing however it sometimes requires the use of very long lines. With rej not you can create shorter multiple lines to do the same thing up to 10, lines 0-9. You can also create 0-9 acc lines and 0-9 RBN lines which I have no knowledge about at present.

Each command line is numbered. Number your lines in sequence. You can start with 0 or 1. You will see in my examples I prefer the rej command lines. It did take some time getting used to using reject not. You can mix acc and rej commands but once an acc command is

satisfied the data is immediately sent out and no more processing or filtering can be applied to that data. The filtering stops at the acc command that is satisfied.

DX Spider uses parentheses () to encapsulate command sets. It does not use [] or { }.

In DX Spider you can separate things sometimes with just a comma ",". But there is no space after the comma. Example: acc/spot 1 by_state ME,MA,NH,VT,RI,CT,NJ,DE

If the word "or", or the word "and" appears in your command line you will almost always need parentheses around the two or more commands especially with the "or" word. You are asking DX Spider to consider two separate conditions within the parenthesis and if either of them is true pass the data on. An "and" between two commands requires that the spot satisfy both command before it can pass through. The "or" is like an OR Gate or as you will see soon a multiple OR Gates. The "and" is like an AND Gate.

UNIVERSAL Spider Information Notes:

All of our filters Output spots from US East Coast Stations. This can be modified to where ever you are.

clear/spots all

[clears any filter already in cluster node you are attached to]

set/skimmer

[turns skimmer on]

unset/skimmer

[turns skimmer off]

Statements such as clear/spots or set/skimmer Do Not get numbered. Place these lines first above the numbered command lines.

rej/spot 1 not by_state ME,MA,NH,VT,RI,CT,NJ,DE,PA,MD,VA,NC,SC,GA,OH,WV,KY,TN
[allows only spots only from East Coast Stations, plus it shows the spotters station call sign and the call signs that spotter station is putting out]
{Change the states to whatever suits you}

rej/spot 2 not (on 1801/1890 or on 3501/3950 or on 7001/7297 or on 14001/14347 or on 21001/21447 or on 28001/28900 or on 50000/5400 or on 144000/148000)
[allows specific frequency ranges which can also determine modes]
{Change frequencies to whatever suits you}

rej/spot 2 not (call_dxcc w,ve,xk,kp2,kp4,kl,kh6)

[kills everything and only allows spots from w,ve,xk,kp2,kp4,kl,kh6 to pass through]

rej/spot 2 call_dxcc w,ve,kp2,kp4,kl,kh6

[kills US,ve,kp2,kp4,kl,kh6 spots and passes everything else including DX]

rej/spot 2 call_dxcc w and not (call_dxcc kp2,kp4,kl,kh6)

[kills all US spots W,K,N,A and passes kp2,kp4,kl,kh6 plus DX]

acc/spot 2 call _dxcc w
 [passes state US W only and stops everything else including DX]

Using an accept line stops any farther filtering. Any lines below the first Accept line will be ignored!! Using reject tells the computer to look for another line before sending the filtered data out. This allows for additional filtering.

reject/spot 1 not call _dxcc w
 [tells the computer DO NOT Reject any US call signs, block everything else, and look for another line first then pass the US call signs on]

accept/spot 1 call _dxcc w
 [tells the computer to pass US spots immediately and stop processing any more lines]
 Both of the two above lines create the same output!

You use the word "spots" plural when you want show something
 like sh/spots 15

NEVER use "k" in a command line. It will cause a syntax error and your script will fail.
 Example: rej/spot 2 call _dxcc w,k,ve,kp2,kp4,kl,kh6 [the k will cause this line to fail]

Below are examples of what we are using to receive spots from East Coast Stations

Example 1
 NAQP CW Spider, Out Puts CW US Stations plus ve,kp2,kp4,kl,kh6,ve

```
unset/skimmer
clear/spots all
set/skimmer cw
rej/spot 1 not by_state ME,MA,NH,VT,RI,CT,NJ,DE,PA,MD,VA,NC,SC,GA,OH,WV,KY,TN
rej/spot 2 not (on 1801/1890 or on 3501/3600 or on 7001/7125 or on 14001/14150 or on
21001/21200 or on 28001/28300)
rej/spot 3 not call _dxcc w,ve,xk,kp2,kp4,kl,kh6
#rej/spot 4 info ft8,ft4
```

[remove the # sign to include line 4 which will remove most of the FT4 and FT8 spots]

[note there is a "not" in every line telling the computer to pass whatever is beyond the "not" and nothing else. Line 1 determines what state we want to receive spots from. You can use "commas" in this case. Line 2 defines all the contest bands which in this cast only allows CW spots plus FT8/FT4 which can be removed with the addition of line 4. Line 3 allows US,VE,XE, and US possessions to pass that are spotted]

Example 2 ARRL DX Phone
 ARRL DX SSB Spider, Out Puts DX stations on SSB

```
unset/skimmer
clear/spots all
rej/spot 1 not by_state ME,MA,NH,VT,RI,CT,NJ,DE,PA,MD,VA,NC,SC,GA,OH,WV,KY,TN
rej/spot 2 not (on 1801/1890 or on 3603/3950 or on 7128/7297 or on 14152/14347 or on
21203/21447 or on 28303/28900)
```

rej/spot 3 call_dxcc w,ve and not (call_dxcc kp2,kp4,kl,kh6,kh2,kh0,kh8,kp1,kp5)

[Again line 1 spots from East Coast stations. Line 2 defines the frequency range thus the mode. Note in line 3 says reject spots in US and VE then NOT to reject spots in kp2,kp4,kl,kh6,kh2,kh0,kh8,kp1,kp5 which are US possessions and count for points plus it will pass any DX.

[explanation from Google AI of line 3:

the call_dxcc attribute in DX Spider only accepts text prefixes if they are single strings without logical operators (like call_dxcc w). As soon as you try to write a complex logical string using and not (...), DX Spider forces you to use the numerical DXCC country codes instead of letters.] [The string would have to look like this] rej/spot 3 call_dxcc 226 and not (call_dxcc 285,202,6,110) these are the numbers for each of the countries.

If you want to use alphabetical prefixes in a complex parenthetical statement, you must swap call_dxcc for call. The call modifier allows pure text string filtering. Then the line looks like this as in the script] rej/spot 3 call w and not (call kp2,kp4,kl,kh6,kh2,kh0,kh8,kp1,kp5)

Example 3 general rules

Full bands 160 to 2 meters Out Puts CW, SSB, RTTY, Digi

unset/skimmer

clear/spots all

set/skimmer

rej/spot 1 not by_state ME,MA,NH,VT,RI,CT,NJ,DE,PA,MD,VA,NC,SC,GA,OH,WV,KY,TN

rej/spot 2 not (on 1801/1890 or on 3501/3950 or on 7001/7297 or on 14001/14347 or on 21001/21447 or on 28001/28900 or on 50000/54000 or on 144000/148000)

You may have to divide line 2 into two separate lines for nodes other than W3LPL. The W3LPL node has a larger buffer length than normal. Very long lines may not work on other sites

[note only 2 lines. This passes both DX and US spots on these frequencies put out by the stations on line 1]

Example 4 WAE SSB

unset/skimmer

clear/spots all

rej/spot 1 not by_state ME,MA,NH,VT,RI,CT,NJ,DE,PA,MD,VA,NC,SC,GA,OH,WV,KY,TN

rej/spot 2 not (on 3703/3950 or on 7128/7297 or on 14152/14297 or on 21203/21447 or on 28303/28900)

rej/spot 3 not call_zone 14,15,16,20,40

[Line 3 only allows the call signs of spotted stations in zones 14,15,16,20, which is Europe, put out by the stations in line 1]

Example 5 CQWW SSB

CQWW SSB Spider, Out Puts SSB Stations, DX and US Stations for zone mults

```
unset/skimmer
clear/spots all
rej/spot 1 not by_state ME,MA,NH,VT,RI,CT,NJ,DE,PA,MD,VA,NC,SC,GA,OH,WV,KY,TN
rej/spot 2 not (on 1801/1890 or on 3603/3950 or on 7128/7297 or on 14152/14347 or on
21203/21447 or on 28303/28900)
rej/spot 3 not (call_dxcc w and call_zone 3,4,5 or not call_dxcc w)
```

[line 3 takes some explanation. Remember it is a “reject not” so it is saying accept everything within the parenthesis. The first parameter is call_dxcc w This allows US calls through. Then we have an "and" followed by the second parameter which is call_zone 3,4,5. The "and" combines both commands so the spot has to come from the US and it has to come from zones 3,4,5 to pass through. Finally, we have an "or" which is one reason for the parenthesis. The "or" means that if the data coming in is acceptable by one or the other command parameters in the parenthesis, pass it on. The third command is not call_dxcc w which means if the spot is not a US call pass it on through meaning pass through any DX spot. I admit without shame I had to get Mr Google AI to help me with this line]

To change from SSB to CW use these lines at the top of your script;

```
unset/skimmer
clear/spots all
set/skimmer cw
```

To change from CW to SSB use these lines at the top of your script;

```
unset/skimmer
clear/spots all
[this allows for human input]
```

Don't forget to change the frequencies ranges to SSB or CW

The basic difference between all 5 scripts is the “frequencies” and the use of the words not, and, call, by, on, and zone. If you use accept you will also make use of the word “and” a lot plus use a lot of parenthesis.

With the above you should be able to creat any filter for any band and any mode. You can use the short cut "canned" commands but be careful you may lose some of your control over what you want, or get a lot of extra you don't want!

Save each command script you build and use it again and again each year. The following Web site gives excellent examples of other things you can add to your filters if needed.

<https://www.qsl.net/n2ki/DXC/DXSpiderFilteringManual.pdf>

Tool Tip: Preventing Vanishing Notepad Edits – Alan WA3EKL

Tech Tip: Fixing the "Vanishing Notepad Changes" Glitch in Windows 10

By WA3EKL

(A portion of the below was written by Google AI, to whom I wrote a 15 line paragraph to explaining the issue of Win10 Notepad not permanently saving my DX Spider scripts but making me think I was. Hint, it was not Notepad).

Have you ever edited your DX Spider or N1MM macro scripts in Windows Notepad, verified the changes look perfect, closed out, and later found your edits completely vanished? If your script folder sits directly on the root of your main drive (e.g., `C:\ContestScripts Spider Commands`), as mine do, you are fighting a hidden Windows feature called **UAC Virtualization**.

The Problem:

Windows treats the root `C:\` directory as highly protected territory. When a non-administrator program like Notepad tries to overwrite an existing script file there, Windows doesn't block you with an error. Instead, it creates a hidden "shadow copy" in your user profile even if you give the directory full privileges. As long as you stay in the file and program, Windows points you to the "shadow copy" making you think you have saved the script. The next time you open the folder natively or refresh your system, Windows stops tracking the shadow copy and reads the original, unedited file from the root drive—making your changes vanish!

The "Safe Copy" Solution:

To prevent data loss, never use "Cut and Paste" to move file folders. Follow this foolproof method to move and edit your scripts seamlessly:

1. **Keep Your Master Archive:** If your scripts are not in your Documents folder leave them right where they are at the moment such as the following example `C:\ContestScripts Spider Commands`. You will move your final scripts to your `C:\(your file name)` when you have finished editing your scripts. N1MM can read from that location with no issues.
2. **Setup your Editing Sandbox:** Open your computer's **Documents** folder. (`C:\Users\<YourUsername>\Documents\`) **Then create a folder for editing your scripts.** Call the folder whatever you want.
3. **Copy, Don't Cut and Paste:** Go to your `C:\(your scripts)` folder, select your script files, highlight, right-click in the highlighted area, and select **Copy**. Go back to your **Documents folder**(editing folder), right-click, and choose **Paste**.
4. **Edit Safely:** Open and modify your scripts *exclusively* from your **Documents** folder. Windows freely allows Notepad to permanently save files here.
5. **After the scripts are finalized:** **Copy** the working script from your Documents folder and **Paste** it back into `C:\(your folder)`, overwriting the old master.

By separating your "editing folder" (in Documents) from your "loading folder" (on the `C:\` drive), you completely bypass Windows security interference without risking any lost data!

PVRC DXCC Challenge Standings – Frank W3LPL

Below are the DXCC Challenge 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	CALL	DXCC
W4DR	3204	W4VIC	2582	W3GG	2071	NA1DX	1579
W3UR	3192	N3KK	2575	N4NW	2068	W8AKS	1549
W3LPL	3179	K3JT	2560	AA4NC	2061	N3AIU	1531
K4CIA	3147	WA2BCK	2557	N3ND	2056	N3AO	1527
N2QT	3117	W3BW	2554	N4XYZ	2001	WB2ZAB	1522
N4BAA	3101	W2GG	2544	K1RH	2000	K4HQB	1518
K4SO	3045	N3RC	2525	K5RJ	1961	KU1T	1501
W4PK	3038	KM3V	2512	N3OC	1954	N1SZ	1466
N3NT	3030	N4GG	2442	W3US	1950	WA3EKL	1465
W3DF	3025	W3IP	2380	W2CDO	1909	K4NTO	1432
K1HTV	3006	W3FOX	2365	N3KS	1906	N3HBX	1428
W3LL	3004	K0GD	2360	K4EU	1871	KG4USN	1416
N4MM	2988	K3TN	2350	N4GU	1865	N8II	1390
WX4G	2973	N4JQQ	2351	K3AJ	1818	NR4M	1382
K5EK	2972	W2YE	2334	W3KB	1815	NR8Z	1380
W0VTT	2967	K1ZZI	2317	W3DM	1791	N5HC	1379
AB3CV	2961	W3YY	2297	K4QE	1784	W4PRO	1377
W3KX	2959	W3XY	2283	N3MK	1775	N6DW	1373
K1AR	2951	K4WNW	2278	KE4S	1758	W9GE	1364
KG7H	2896	KN4KL	2272	W3ZQI	1748	K5VG	1349
K3WC	2889	W3MR	2258	W3UL	1730	AK3E	1348
KG4W	2879	KA4RRU	2256	ND3F	1718	K9GY	1343
N4DB	2865	NW4V	2245	W4GP	1710	N1RM	1326
K3WA	2844	K1EFI	2221	KF7NN	1698	W3NRJ	1325
K5RT	2798	K3SX	2220	W4JVN	1683	K4ZA	1313
K1GG	2791	K4FJ	2214	WB4DNL	1679	W4NF	1258
K3RA	2763	W0YVA	2211	NE3H	1668	N3RR	1199
WB3AVN	2727	N4ZH	2188	N1EK	1661	KK4ODQ	1099
N4TL	2673	K2BA	2153	K3WI	1652	K3IXD	1090
N3MN	2657	N3QE	2147	N4ZR	1652	NE3K	1073
K5VIP	2644	W3TN	2132	AA4FU	1608	N3COB	1049
W4FQT	2622	K3STX	2111	K3KY	1606	W4ZV	1048
W3OA	2604	K3PU	2107	W3OU	1597	K4ZW	1044
N4QQ	2583	N3KN	2084	KE3X	1588	K4VX	1021

Membership News – Steve NC4SW

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](#)

October 2026

<u>+ Oceania DX Contest, Phone</u>	<u>0600Z, Oct 3 to 0600Z, Oct 4</u>
<u>+ California QSO Party</u>	<u>1600Z, Oct 3 to 2200Z, Oct 4</u>
<u>+ Makrothen RTTY Contest</u>	<u>0000Z-0800Z, Oct 10 and</u> <u>1600Z-2400Z, Oct 10 and</u> <u>0800Z-1600Z, Oct 11</u>
<u>+ Oceania DX Contest, CW</u>	<u>0600Z, Oct 10 to 0600Z, Oct 11</u>
<u>+ Scandinavian Activity Contest, SSB</u>	<u>1200Z, Oct 10 to 1200Z, Oct 11</u>
<u>+ Pennsylvania QSO Party</u>	<u>1600Z, Oct 10 to 0400Z, Oct 11 and</u> <u>1300Z-2200Z, Oct 11</u>
<u>+ JARL WW RTTY Contest</u>	<u>0000Z, Oct 17 to 2400Z, Oct 18</u>
<u>+ Worked All Germany Contest</u>	<u>1500Z, Oct 17 to 1459Z, Oct 18</u>
<u>+ Stew Perry Topband Challenge</u>	<u>1500Z, Oct 17 to 1500Z, Oct 18</u>
<u>+ ARRL School Club Roundup</u>	<u>1300Z, Oct 19 to 2359Z, Oct 23</u>
<u>+ CQ Worldwide DX Contest, SSB</u>	<u>0000Z, Oct 24 to 2359Z, Oct 25</u>
<u>+ UK/EI DX Contest, SSB</u>	<u>1200Z, Oct 31 to 1200Z, Nov 1</u>

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

Editor's Last Word – John K3TN

Thanks to WA3EKL, K6ZO, N8II and W3LPL for contributions to this issue of the PVRC newsletter.

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.

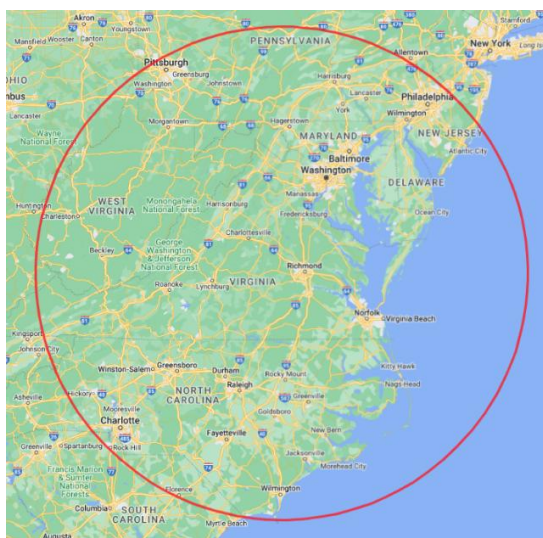
Direct donations to PVRC via Credit Card or PayPal may be made by clicking this "Donate" button and clicking the next Donate button that appears on your screen:



Donations to PVRC are not tax deductible

Eyeball QSO Directions

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



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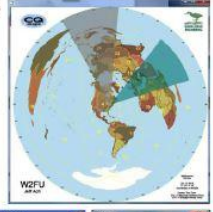
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Precision-engineered solid-state amplifiers built for performance and flexibility, Elecraft integrates seamlessly with a broad range of transceivers. It's the power solution that elevates your entire station, regardless of what radio you choose.

KPA1500 Amplifier

- 1500 W
- Very compact high-power design
- Fast, silent PIN diode T/R switching
Instant band changes with no relays
- Dual antenna ports with built-in ATU
- 160–6 meters



KPA500/KAT500 PowerCombo

- 500 W
- Complete PowerCombo (amplifier + ATU)
- Instant RF-based band switching
- Rugged internal linear power supply
- KAT500 auto tuner with up to 10:1 matching range
- Smart antenna switching
- 160–6 meters



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IC-9700 | All Mode Tri-Band Transceiver

• VHF/UHF/1.2GHz • Direct Sampling Now Enters the VHF/UHF Arena • 4.3" Touch Screen Color TFT LCD • Real-Time, High-Speed Spectrum Scope & Waterfall Display • Smooth Satellite Operation



IC-PW2 | HF-50 MHz 1kW Linear Amplifier

• 1kW Output Full Duty Single Operator Two Radios (S02R) • Built-in Automatic Antenna Tuner • Detachable Controller with Touch Screen Display • 2x6 Automatic Antenna Selector - 2 Radio Inputs & 6 Antenna Connections



Two versions available!

IC-V3500 | 144MHz FM Mobile

• 65W of Power for Long Range Communications • 4.5 Watts Loud & Clear Audio • Modern White Display & Simple Operation • Weather Channel Receive & Alert Function



IC-7760 | HF150MHz All Mode Transceiver

• New Design-Remote Control Head & Separate RF Deck • Dual Independent Receivers, Spectrum Scope & Waterfall • 200 Watts Output 100% Duty Cycle • Flexible Remote Operation Capabilities



IC-705 | HF/50/144/430 MHz All Mode Transceiver

• RF Direct Sampling • Real-Time Spectrum Scope and Waterfall Display • Large Color Touch Screen • Supports QRP/QRPP • Bluetooth® and Wireless LAN Built-in



ID-5200 | Dual Band Analog/Digital Transceiver

• Large 4.3" Color Touchscreen w/Waterfall Display • Enhanced D-STAR Functionality • Supports APRS (Automatic Packet Reporting System) Through Future Firmware Update • Connectivity for Smartphones & PC with Wi-Fi and Bluetooth

IC-7300 version available!



IC-7300MK2 | HF/50MHz All Mode Transceiver

• HDMI™ Port for External Display • RX-ANT Connectors for Band Pass Filters, Preamps & Receiving Antennas • Built-In CW Decoder • APF (Audio Peak Filter) for CW Signals



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

IC-V86 | VHF 7W HT

• 7W Output Power Plus New Antenna Provides 1.5 Times More Coverage • More Audio, 1500 mW Audio Output • IP54 & MIL-STD 810G-Rugged Design Against Dust & Water • 19 Hours of Long Lasting Battery Life • 200 Memory Channels, 1 Call Channel & 6 Scan Edges



IC-7610 | HF/50 MHz All Mode Transceiver

• Large 7-inch color display with high resolution real-time spectrum scope and waterfall • Independent direct sampling receivers capable of receiving two bands/two modes simultaneously



IC-2730B version available!

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



ID-50A | VHF/UHF D-STAR Portable

• High Visible LCD with Backlight Function • Find Nearby Repeaters with the Built-In GPS • Easy D-STAR Settings for Beginners • Voice Recorder Function • Share Pictures in DV Mode



IC-R8600 | Wideband SDR Receiver

10 kHz to 3 GHz Super Wideband Coverage • Real-time Spectrum Scope w/Waterfall Function • Remote Control Function through IP Network or USB Cable • Decodes Digital Incl P25, NXDN™, D-STAR • SD Card Slot for Receiver Recorder



ID-5100 AD

VHF/UHF Dual Band Digital Transceiver

• 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

ID-52A | VHF/UHF D-STAR Portable

• Bluetooth® Communication • Simultaneous Reception in V/V, U/U, V/U and DV/DV • Enriched D-STAR® Features Including the Terminal Mode/Access Point Mode • UHF (225~374.995MHz) Air Band Reception



ID-52A Plus version available!

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FTDX101MP | 200W HF/50MHz Transceiver

- Hybrid SDR Configuration • Unparalleled 70 dB Max. Attenuation VC-Tune • New Generation Scope Display 3DSS • ABI (Active Band Indicator) & MPVD (Multi-Purpose VFO Outer Dial) • PC Remote Control Software to Expand the Operating Range • Includes External Power With Matching Front Speaker



FTDX10 | HF/50MHz 100 W SDR Transceiver

- Narrow Band and Direct Sampling SDR • Down Conversion, 9MHz IF Roofing Filters Produce Excellent Shape Factor • 5" Full-Color Touch Panel w/3D Spectrum Stream • High Speed Auto Antenna Tuner • Microphone Amplifier w/3-Stage Parametric Equalizer • Remote Operation w/optional LAN Unit (SCU-LAN10)



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



FTDX101D | HF + 6M Transceiver

- Narrow Band SDR & Direct Sampling SDR • Crystal Roofing Filters Phenomenal Multi-Signal Receiving Characteristics • Unparalleled -70dB Maximum Attenuation VC-Tune • 15 Separate (HAM 10 + GEN 5) Powerful Band Pass Filters • New Generation Scope Displays 3-Dimensional Spectrum Stream

FT-710 Field version also available!

FT-710 Aess | HF/50MHz 100W SDR Transceiver

- Unmatched SDR Receiving Performance • Band Pass Filters Dedicated for the Amateur Bands • High Res 4.3-inch TFT Color Touch Display • AESS: Acoustic Enhanced Speaker System with SP-40 For High-Fidelity Audio • Built-in High Speed Auto Antenna



FT-891 | HF+50 MHz All Mode Mobile Transceiver

- Stable 100 Watt Output • 32-Bit IF DSP • Large Dot Matrix LCD Display with Quick Spectrum Scope • USB Port Allows Connection to a PC with a Single Cable • CAT Control, PTT/RTTY Control



FT-3185RASP | Heavy-Duty 85W 2M FM Transceiver

- Massive Heatsink Ensures Reliable 85W RF Power • Super-DX Function Increases Receiver Sensitivity & Weak Signal Reception • 221 Memory Channels • Large 6-Character Alpha-Numeric Display



FTM-150RASP | 2M/430MHz FM True Dual Band Xcvr

- Dual Receivers Allowing (V+V, U+U, V+U, U+V) Operation • 55W VHF & 50W UHF • Heavy Duty Heat Sink w/Funnel Air Convection Conductor • Front & Main Body Speaker for 6W High Quality Audio



FTM-510DRASP C4FM/FM 144/430MHz Dual Band Xcvr

- New Super-DX & ASP (Audio Digital Signal Processor Unit) • True Dual Bank Receive (V+V/U+U/V+U+V) • C4FM/C4FM Digital D-D Dual Receive • 2.4" High-Res Full-Color Touch-Panel Display • Wireless Operation Capability with Optional Bluetooth® Headset



FTX-1 Optima | HF/50/144/430MHz All Mode SDR Xcvr

- Detachable Field head For QRP SOTA/POTA Adventures • Attach Field Head to SPA-1 For 100 Watts (Base Operations) • SPA-1 Includes Internal HF Antenna Tuner • SSB, CW, AM, FM and C4FM Digital



FTX-1 Field | HF/50/144/430MHz All Mode SDR Xcvr

- Compact QRP SOTA/POTA Xcvr (8.4"W, 3.5"H, 2.2"D) • 6W (5W for QRP) • Includes 6400mAh High Capacity Li-ion Battery • SSB, CW, AM, FM and C4FM Digital • 10W of Power w/External Power Supply • Upgradable to 100W with Purchase of SPA-1



FTM-310DR | Dual Band Analog/C4FM Digital Xcvr

- True Dual-Band, Dual Receive - Monitor Two Frequencies Simultaneously • Crystal-Clear C4FM Digital Audio • Bluetooth® Hands-Free Operation Available By Installing Optional BU-5 Board • Feature Packed: Integrated GPS, APRS, Group Monitor (GM), DG-ID, High-Res Band Scope & WIRES-X



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



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