



PVRC Newsletter

February

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

The year 2023 has not begun well for PVRC. The passing of PVRC member Fred Laun K3ZO on January 3 is a sad way to start the year.

A friend and mentor to many, highly respected by the world contest community, he will be missed greatly. He will also be remembered well and for long, in part through the tributes many of you have written and many of which will appear in this and future PVRC Newsletters.

Fred was a very active and successful contester, with a few examples such as being inducted into the CQ Contest Hall of Fame in 1993 and contributing to many 5M contests for PVRC in every year since 1997 through the end of 2022, accumulating more than 172 million 5M points.

Reflect on all we have experienced and gained from the Silent Keys who have gone before.

73, Doug Hart AA3S

PVRC Officers:

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

Trustees:

K3MM, N3OC, K2AV, N1RM, W3LPL, N3KN, W2RU, W3LL, N4RA

PVRC Charter Members (all SK):

W3GRF, W4AAV, W4KFC, N0FFZ, W4LUE, W7YS, VP2VI/W0DX, W3IKN, W4KFT

Newsletter Editor: John K3TN jpescatore@aol.com

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

PVRC Meeting Info: <http://www.pvrc.org/chapters.htm>

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

Club Competition – Beyond 5M (Earn Another Plaque or Two,,,)

Be sure to monitor the PVRC Reflector for news about the **four** contests in February that are PVRC 5M contests! Another NAQP (RTTY) and then there is the [ARRL DX CW](#) that we need a new approach to if we are to win. As always, the 5M calendar is found at [PVRC 5M Contest Calendar](#) or by easy click-navigating from the “PVRC 5M” tab on the main webpage.

There are several State QSO Parties that publish score results of out-of-state radio clubs and award a plaque or certificate to the high scoring club. PVRC has recently won several. Rather than have that plaque reside at some random officer’s house, it will be the intent of PVRC to send that plaque to the highest scoring PVRC member or multi-op station owner who contributed to that win for PVRC.

The following State QSO Parties have club competitions (i.e., the contest sponsor calculates and publishes club scores):

QSO Party	Club Competition	Date	Web Link
Virginia QSO Party	Yes	3/18/2023	https://www.qsl.net/sterling/VA_QSO_Party/QSOParty.htm
Georgia QSO Party	Yes	4/8/2023	Georgia QSO Party (gagsoparty.com)
Michigan QSO Party	YES	4/15/2023	Michigan QSO Party – Sponsored by MRRC (miqp.org)
New England QSO Party	Yes	5/6/2023	New England QSO Party – 20 hours, 67 counties, the chase is on! (neqp.org)
Ohio QSO Party	Yes	8/26/2023	Ohio QSO Party – Sponsored by MRRC (ohqp.org)
Tennessee QSO Party	Yes	9/3/2023	Tennessee QSO Party cq cq cq TNQP de K4TCG
Iowa QSO Party	Yes	9/16/2023	Iowa QSO Party 2022 Story County Amateur Radio Club (w0yl.com)
Maine	YES	9/23/2023	Maine QSO Party, Maine's Premier International HF Contest, which takes place annually in September. Maine Radiosport, Maine ham radio, amateur radio HF contesting (ws1sm.com)
California QSO Party	Yes	10/7/2023	CQP Home Page
Arizona QSO Party	Yes	10/14/2023	AZQP - Arizona QSO Party
Pennsylvania QSO Party	Yes	10/14/2023	PA QSO Party - PA QSO PA
New York QSO Party	Yes	10/21/2023	New York State QSO Party – Official website of the NYQP

It is time consuming and easy to make errors when sifting through all the state QSO websites to determine details of club competitions. Mike, N4GU, began a list of State QSO Parties, I have added to it, and it may contain errors so let me know what you find.

The Virginia QSO_p next month is particularly complicated for club competition, there are two awards (see slide 4 of the presentation [here](#) :

- 1) “Combined Club Score” which seems to mean the scores of all Virginia members of a club are summed and compared to all other Virginia-member clubs. So only PVRC members with their contest QTH in Virginia would be counted toward this award (at least that’s the way it appears to me). Looking at 2022 results at this [website](#) (slides 94 and 95) PVRC may be close enough to win in 2023 with the right type of effort.
- 2) “Virginia Club Merged Score - VA QSOs” which adds the scores of club members by counting only the QSOs that both originate and terminate in Virginia. (See slides 97 and 98). For this award, PVRC had about half the winning point total of the Fauquier ARA. This may be a long putt, but there are specific operating tips provided by the Fauquier ARA to score better in the Virginia QSO_p *because they want the competition!* Look [here](#).

Any volunteers to lead a PVRC effort to win these Virginia QSO_p awards?

More Bling for PVRC – 1st Place WAE Club Competition 2022

The power of the swarm! FRC came in 4th with the second highest operator count, 58. Goal for 2023 – PVRC has more than 100 logs sent in!

WAEDC Club Competition 2022 DX

CW=final, SSB=final, RTTY=final

Club	Points	Logs	Callsign of the Log
Potomac Valley Radio Club	21.350.344	95	CW: AB3CV, AC5XK, K0ZR, K1BZ, K1IMI, K3MM, K3RA, K3TN, K3WA, K3ZU, K4FTO, K4MI, K4QPL, K4WWP, K7SV, KG3V, KG4W, KP2M, N1RM, N2YO, N3AM, N3JT, N3KN, N3OC, N3QE, N4CF, N4CWZ, N8II, NA4J, NN3RP, NY3A, NZ4N, W2CDO, W3LL, W4VIC, WA3AER SSB: AA3S, AG3I, K1BZ, K3AJ, K3ZU, K4WWP, KG4W, N1RM, N3QE, N3UA, N4CF, N4CW, N8AID, N8II, NN3RP, NN4RB, W3LL, W3TAS, W4VIC RTTY: 4U1WB, AA3S, AC5XK, AC8Y, A14WU, K0ZR, K1BZ, K3AJ, K3AU, K3MM, K3SV, K3TN, K3YDX, K4FTO, K4MI, K4MIL, K4YCR, K5VIP, KG4W, N3QE, N4CF, N4TL, N6DW, N8AID, NN3RP, NN4RB, NR4M, NR4O, NX3Z, W3LL, W3UL, W3XOX, W4BBT, W4PK, W4RN, W4VIC, W4WWQ, W7HJ, W8LYJ, WS6X
yankee clipper contest club	18.801.419	48	CW: AE1T, K1ESE, K1JB, K1LZ, K1MT, K1NY, K1RM, K1TH, K1XM, K1ZZ, K2LE, K3JO, K5ZD, N1DC, N1SOH, N9NC, NB1N, VA2EBI, VY2ZM, W1CSM, W1GD, W1KM, W1WEF, W1ZT, WB2NVR SSB: K1JB, K1RX, K1TH, K5ZD, KA2KON, N1DFD, N1SOH, NE1C, VA2UR, VY2ZM, W1GD, WB2NVR, ZF2RX RTTY: K1MK, K5ZD, KA1YQC, KA2KON, KB1W, N1XF, NC1CC, NU1F, W1TO, WB2NVR

Support Our Newsletter Advertisers!

The image contains a collection of logos for various organizations. At the top left is 'HAM RADIO OUTLET' with a blue and white logo. Next to it is 'DX ENGINEERING' with a large red 'DX' and a black antenna icon. To the right is 'The Daily DX' with a sun and mountains logo. Below these is 'ELECRAFT' with a large stylized 'G' logo. At the bottom left is 'GREEN HERON ENGINEERING LLC' with a green heron logo. At the bottom right is 'QSL CARDS By LZ1JZ' in a blue box.

Fred Laun K3ZO Tributes

"If anyone wants to invent a new category that will fit me, I will gladly change to that category and continue to have fun in the contests. Until then, I will continue to operate SOHP.

73, Fred" (1999)



Gene W3ZZ and Fred K3ZO – Dayton 2003

From Glenn K3SWZ:

In 1965, I was pretty new to serious DXing. I worked Fred as HI8XAL that year several times for a new country! The card came through quickly. Must have been DXCC country no. 20 or so! Fred and I chatted about his adventures in HI8 land several times at the W3LPL picnics.

In 2007 I was trying to fill a few holes for 5 Band WAZ and Fred was to be on as HS0ZAR in the CQ WW CW DX Contest. I was able to work him on 80M and I was very happy for Zone 26! A few weeks later he called me on the phone and told me I was one of only two W/K stations he worked East of the Mississippi on 80 M!! Wow, that was thrilling! Fred was always a gentleman in every way! He will be missed!

From John K3TN:

In 1987 Dave KM3T and Mike KC8C (sk) were living at Fred's place while Fred was overseas. The three of us plus Bernie WB3JRU (now W3UR) did a multi-single entry in the second running of the IARU HF contest that summer.

Now, in 1992 Don WZ3Q (now K4ZA) also operated in the IARU HF contest while living at Fred's QTH. We both remember the following story, I'm not sure **when** it actually happened, but even Fred admitted it **did** happen:

At some point the entire shack reeked of diesel fuel - Fred's oil tank had sprung a leak.

We had worked Fred at HS0ZAR (or wherever he was at the time) on 20, so we went to their freq and answered his CQ. Fred said "What are you doing on 20?? You should be on 15 now, much higher rates there!!!"

We said "Fred: the oil tank is leaking, what should we do??"

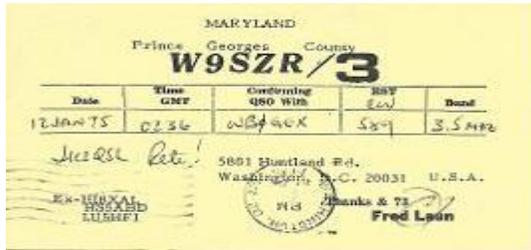
Fred said : "You should QSY to 15m is what you should do, worry about the oil after the contest - QRZ?"

We QSYed to 15 and I think we figured out how to call his oil company to come over later...

My other story is working Fred as LU5HF1 (when he was W9SZR) in late 1972 or early 1973 when I was a junior in high school and later that year hearing he had been shot and captured and his station taken away - but I still got a QSL card via the buro the next year! Good article on that [here](#).



From Peter W2CDO, ex WB0GEX:



Confirmation of my first QSO with Fred. I'll miss his steady presence in contests and in person, his extensive understanding of propagation and his unsung generosity. A real loss.

From Gene AD3F:

I met Fred only a couple of times, mainly at W3LPL's annual get-together. But the last time I saw him was at a PVRC NE section dinner at a restaurant somewhere in Germantown, MD. It was in early 2020 as I recall, because one of the topics of discussion was this new Covid virus thing. We all wondered aloud how long it would be before it burned itself out.



I worked Fred on 2M during the last Sept VHF contest. He, of course, gave me an extraordinarily high Q number compared to my double-digit figure.

From Tom HP1XT:

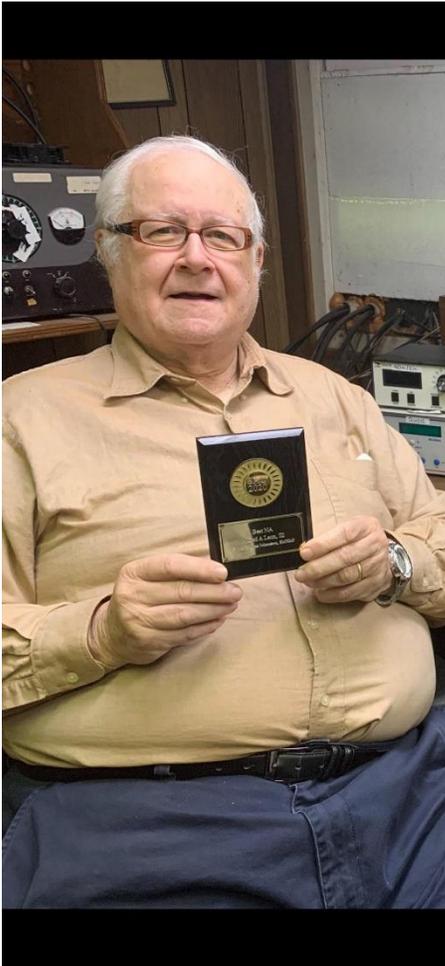
I worked Fred a number of times over the years and actually met him last Sept in VA at the PVRC 'goat farm' gathering at NR4M's QTH. At his age, the BIC time amazed me....the best part was always his post contest writeup....a tutorial in propagation knowledge.

From Luc PY8AZT:

Every ham radio operator active in the past 5 decades or more has been touched by Fred's kindness somehow. My first contact happened when I was 12. He answered my slow CQ, as he knew it was my first long distance contact on Morse Code.

His kindness was crystal clear anytime he answered my CQ over the last decades since then. Even in the middle of a DX or Contest pileup, K3ZO popped up from the crowd not as the strongest signal, but the friendliest one.

From Dave KM3T;



(L) Fred still winning bling at 83.

(R) Fred with Matt KC1XX



I met Fred at a PVRC meeting or social function around 1985 when I moved to the MD suburbs of DC. The following year he would be taking an assignment in Nicaragua and was looking for a renter to take care of his house for a year or two. I readily volunteered since I would be helping Fred out, didn't have the means at the time for a 3-tower home station, and DXing and contesting at home would be fun. That started a 38-year friendship with one of the most amazing hams I have known. Fred was ham radio inside and out.

Fred married Somporn (L) in 1986 and she went to Nicaragua with him. He loved her more than anything, even more than ham radio. On their occasional trips back to MD we would sit and chat for hours about DXing, contesting, and his world travels. Fred had an incredible memory - he would remember details of QSOs - propagation modes and other things - from many years earlier. It seemed as if no detail ever left his mind. Fred was very insightful...he saw things in me that I couldn't see at the time and that would help me later on in life.

From Carl K3RV:

Circa 1975, Fred is in the right foreground. W3LPL is on the right behind Fred. That's K7ZZ (SK) on the left. And yours truly K3RV in the striped shirt along with a few friends.



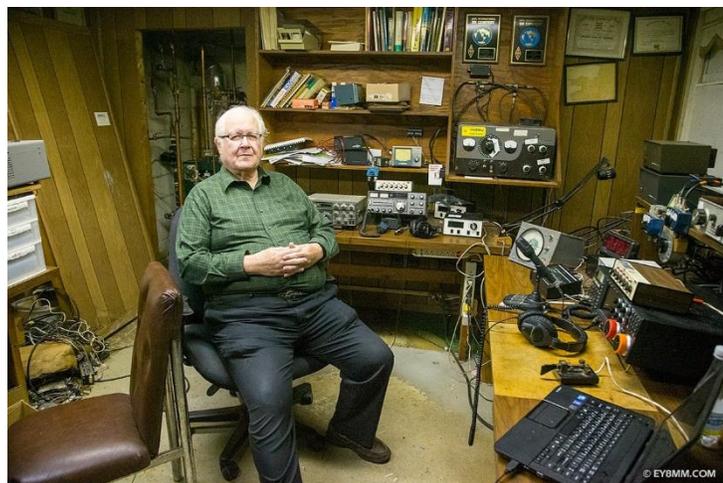
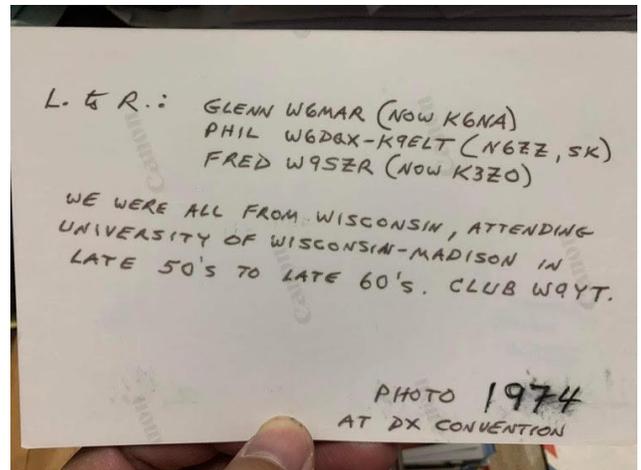
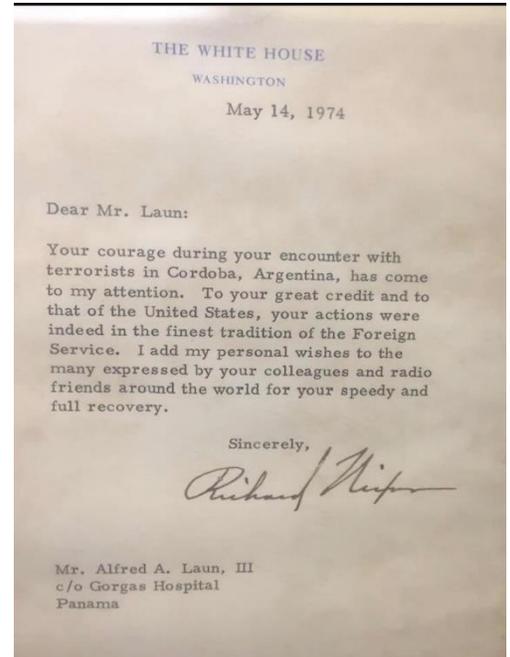
This photo of Fred was taken by me at his LU5HFI QTH in Córdoba, Argentina in June 1973. I was spending several weeks in Buenos Aires (QRV as LU3AU) and visited Fred for a few days in Córdoba (about 400 miles away). Fred was a very generous host, and we enjoyed some excellent food, wine and wide-ranging conversations together.

Along with his numerous ham radio achievements that were mentioned by others, Fred was a artful raconteur and highly accomplished Foreign Service Officer. He will be sorely missed by all who had the privilege to know him.

From Ken K4ZW:



L-R: EY8MM, K4YT, K3ZO, K4ZW



From Scott KØDQ:

Fred and I both grew up in the Midwest as dedicated DXers. I had some 270 countries from Iowa before leaving for the Naval Academy in 1962 at age 17. But in those days DXCC required that all contacts be made from a 150-mile radius, so a Navy career obviated any serious DXCC aspirations, and I eventually switched my focus to contesting.

My relationship with Fred goes back to at least 1967. After graduating from USNA I spent a year in Uruguay on a Fulbright scholarship. Got licensed as CX3BBD and operated from one of the contesting giants of the time, CX2CO. Fred was then at HI8XAL so we had the advantage of three-point contacts with the US in CQWW (vs Fred's 2 point value) but Fred had the low band propagation advantage into US and EU.

Five years later the tables were turned, and I was in Mexico as XE1IJ (with a bunch of special call signs) and Fred was in Argentina as LU5HFI (where he famously was kidnapped by leftists). We had many pleasant QSO's outside of contests. The Mexico experience, BTW, was where I became obsessed with rate (as an antidote to the 2 point rule) and ended with over 10K QSOs in the ARRL contest (as 6J9AA), the first time that had been done in a major contest.

Fast forward to the late 1990's. I'd retired from the Navy and – after a long hiatus – dived heavily into ham radio and contesting. I had operated occasionally in the past from W3GRF when I was assigned in DC – continuing as a “rate junky”- but Fred was still possessed of his inveterate love of DXing and, by extension, seeking multipliers in contests. As per the article, he finally made the intellectual switch to the value of “quantity over quantity”, but it was not easy to break decades of habit.

We became fast friends and enjoyed many happy dinners with Jim Ahlgren W4RX (nee W4YHD with the mountaintop station) and – later – Ed Giambastiani N4OC.

RIP Shipmate. You had a wonderful run and served as one of the true giants of ham radio in so many dimensions.

From ON5ZO:

ZO's are a special breed no doubt. Unfortunately, not immortal. RIP OM Fred. Apart from showing up in my log 274 times over the course of 20 years, I'll always remember Fred K3ZO because:

- He was always there;
- He was always frikkin' **loud**;
- He spoke calmly but FIRMLY and sent at moderate WPM.
- He's a Zulu Oscar.

K3ZO was about our only shot at the USA multiplier in Region 1 CW field day on 80/160. I always told my fellow FD ops: if K3ZO calls in on 40, try to move him to 80/160 because hardly anyone else will be there. Sometimes it worked, sometimes it didn't. But Fred was always there.

From Roy WN3F:

Fred story from the book *Solder Smoke* by Bill Meara, N2CQR, from his time in the foreign service in the Dominican Republic where he'd joined a local radio club.

Gustavo Vasquez, HI8G, is one of the core members of the club. He's now a very distinguished-looking fifty-something guy with a broad smile and salt-and-pepper hair. His interests have always extended far beyond ham radio; on weekends he could be found sailing radio-controlled boats in a small artificial lake near my house. He was also into woodworking and furniture making. He's a very eloquent, very expressive person, who is not at all hesitant to tell you what he thinks. It was probably that last characteristic that got him into trouble in 1967. And in 1967, that kind of trouble could have been fatal in the DR.

At the time, Gustavo was in the University. I think it is safe to say that his opinions are a bit left-of-center now, and, as is the case with many of us, they were much further to the left during his university

48

days. When the political firestorm hit Santo Domingo, it appears that Gustavo was on the list of people that Dominican Military Intelligence was worried about. So one day, he disappeared.

It must have been someone in the club who turned to Fred Laun. In the Embassy, Fred's job was in the public affairs area—cultural exchanges, press relations, etc. He really had nothing to do with what are called politico-military activities. But in the DR, just about anyone working in the American Embassy had influence and entrée, and was in a position to help in situations like this. To make a long story short, Fred Laun saved Gustavo. That's why they were still talking about him in reverential tones when I arrived on the scene 20 years later. They spoke of his ham radio skills and prowess, but the real reason that they were still talking about him was that he'd really become their friend. The common ground of ham radio helped bridge all the linguistic and cultural gaps, and (as would happen with me) had pulled Fred into their circle of friendship, into their cloud of solder smoke.

From Paul N4PD:

Fred with Norm AI2C (SK) at the Berryville hamfest in Aug 2014.

From Ray NM2O:

Fred was very active and was spotted a lot, especially by so many friends. The DXSummit last spot was by WB2ZAB. On RBN, the last spots were by NN3RP and N4ZR.

Quite a coincidence!

DX call sign: K3ZO

Spotter	Freq.	DX	Time	Info	Country
WB2ZAB	28435.0	K3ZO	22:54 11 Dec		United States
W4RN	28435.0	K3ZO	21:45 11 Dec	MD	United States
VE6CSX	28434.9	K3ZO	21:24 11 Dec	USB	United States
WA3AER	28435.0	K3ZO	20:59 11 Dec	USB	United States
K3RA	28435.0	K3ZO	19:59 11 Dec	USB	United States
K4VTE	28435.0	K3ZO	19:51 11 Dec	MD	United States
PY2EBD	28435.0	K3ZO	19:39 11 Dec	USB	United States
K3MM	28435.0	K3ZO	19:09 11 Dec		United States
N3XF	28435.0	K3ZO	19:05 11 Dec		United States
N5UI	28435.0	K3ZO	18:22 11 Dec	USB	United States
PY2FX	28435.0	K3ZO	18:02 11 Dec	USB	United States
KE2D	28435.0	K3ZO	17:43 11 Dec	MD USB	United States

callsign: K3ZO

spotter	spotted	distance mi	freq	mode	type	snr	speed	time	seen
WZ7I	K3ZO	139	28022.5	CW	CQ	5 dB	20 wpm	0136z 11 Dec	20 days ago
NN3RP	K3ZO	8	28022.5	CW	CQ	6 dB	20 wpm	0134z 11 Dec	20 days ago
N4ZR	K3ZO	41	28022.5	CW	CQ	22 dB	20 wpm	0134z 11 Dec	20 days ago
WZ7I	K3ZO	139	28018.0	CW	CQ	6 dB	21 wpm	0103z 11 Dec	20 days ago
NN3RP	K3ZO	8	28018.0	CW	CQ	5 dB	20 wpm	0057z 11 Dec	20 days ago
N4ZR	K3ZO	41	28018.0	CW	CQ	38 dB	20 wpm	0057z 11 Dec	20 days ago
N4ZR	K3ZO	41	28009.5	CW	CQ	31 dB	20 wpm	0039z 11 Dec	20 days ago
NN3RP	K3ZO	8	28009.5	CW	CQ	23 dB	20 wpm	0039z 11 Dec	20 days ago
NN3RP	K3ZO	8	28010.3	CW	CQ	5 dB	23 wpm	0031z 11 Dec	20 days ago
N4ZR	K3ZO	41	28010.3	CW	CQ	13 dB	23 wpm	0031z 11 Dec	20 days ago
N4ZR	K3ZO	41	28026.9	CW	CQ	21 dB	20 wpm	0024z 11 Dec	20 days ago
NN3RP	K3ZO	8	28026.9	CW	CQ	13 dB	20 wpm	0024z 11 Dec	20 days ago
N4ZR	K3ZO	41	28015.0	CW	CQ	22 dB	20 wpm	2353z 10 Dec	20 days ago
NN3RP	K3ZO	8	28014.9	CW	CQ	1 dB	20 wpm	2347z 10 Dec	20 days ago
NN3RP	K3ZO	8	28020.7	CW	CQ	13 dB	23 wpm	2338z 10 Dec	20 days ago
N4ZR	K3ZO	41	28020.7	CW	CQ	6 dB	23 wpm	2338z 10 Dec	20 days ago
NN3RP	K3ZO	8	28022.8	CW	CQ	2 dB	23 wpm	2338z 10 Dec	20 days ago
K07SS	K3ZO	1943	28065.9	CW	CQ	21 dB	21 wpm	2159z 10 Dec	20 days ago
W3OA	K3ZO	324	28065.9	CW	CQ	8 dB	21 wpm	2159z 10 Dec	20 days ago
NC7J	K3ZO	1853	28065.9	CW	CQ	16 dB	21 wpm	2159z 10 Dec	20 days ago
VE6AO	K3ZO	1968	28065.8	CW	CQ	12 dB	21 wpm	2159z 10 Dec	20 days ago
N4ZR	K3ZO	41	28061.3	CW	CQ	24 dB	21 wpm	2157z 10 Dec	20 days ago
NC7J	K3ZO	1853	28061.3	CW	CQ	26 dB	21 wpm	2157z 10 Dec	20 days ago

From 3830 – 21M+ K3ZO points at age 85

Current	Contest	Call Used	Class	Power	Score
	ARRL 10 Dec 10	K3ZO	SO Mixed	HP	1,346,604
2022	Contest	Call Used	Class	Power	Score
	144SprngSprnt Apr 11	K3ZO	Single Op	HP	20
	50SprngSprnt May 14	K3ZO	Single Op	HP	40
	All Asian CW Jun 18	K3ZO	SOAB	HP	42,233
	ARRL June VHF Jun 11	K3ZO	Single Op-Analog	HP	119,144
	ARRLDX CW Feb 19	K3ZO	SOAB	HP	2,270,532
	ARRLDX SSB Mar 5	K3ZO	SOAB	HP	1,717,776
	CQWW CW Nov 26	K3ZO	SOAB	HP	3,741,870
	CQWW SSB Oct 29	K3ZO	SOAB	HP	4,352,842
	SS CW Nov 5	K3ZO	Single Op	HP	150,894
	SS SSB Nov 19	K3ZO	Single Op	HP	216,132
	WPX CW May 28	K3ZO	SOAB	HP	3,133,641
	WPX SSB Mar 26	K3ZO	SOAB	HP	5,648,566

From Mel W3MR:

I received my license in 1973 and one of my early contacts was Fred LU5HFI. Soon after our QSO, Fred was on the cover of the Washington Post lying in the street after being shot. After he was flown home and recovered, he called me and asked if I wanted to come to a PVRC meeting. He also said I called him using a straight key. That he knew that and remembered after being shot and left for dead was amazing!

Much later, he asked me if I would help with the 3rd area QSL bureau as a sorter. My wife, Barb W3BIR (SK), and I would meet Fred at Applebee's in Bowie to exchange cards and sit for hours to discuss the state of the world. Fred was the kind of person that could talk to anybody and make them feel like they were the most important person in the world. Barb loved the time we spent with Fred.

I would get on the VHF contests from my home in the Catskills in FN22 since Fred mentioned that I was the only FN22 that he would work. Our last QSO was during the 10 Meter contest in December.



A [post](#) from K3ZO to CQ-CONTEST February 2000:

At 10:08 PM 2/24/00 -0600, K4RO wrote:

>
>
>The question is simple: is it OK to take a frequency from someone?
>
>Are there times when it is OK and times when it is not? Please explain.
>
>Are there "prime areas" where it is acceptable, and areas where it is not?

A similar thread has been discussed at various times in the past, most notably related to the use of "QRL?". The question is really more complicated than those stated above. First of all, the real question is: "How wide is the swatch of band that a station who is running thinks he can lay claim to? How close to his run frequency can someone get before being told "QRL"?"

As my dear departed and deeply missed mentor W3GRF always said: "It's a listening contest as well as a sending contest." One measure of contest skill is the ability of a person to copy weak signals through heavy QRM. I reserve the right to decide for myself what bandwidth I need to run stations successfully. I don't allow someone else to make that decision for me. If someone considers themselves to be my equal in operating skill, they should be able to put up with the same amount of QRM I'm willing to. Therefore, I have two cardinal principles by which I handle this situation:

1. I will NEVER use the term "QRL" when someone gets on or what I consider too close to "my" run frequency.
2. In return, I expect that nobody will ever use the term "QRL" to me. I do not believe it is ethical to try to influence a competitor's operating decisions by communicating with him directly.

I believe I am capable of determining for myself whether a particular frequency was obviously in use or not. If notwithstanding the above someone says "QRL" and then demonstrates that he was indeed using the frequency (as defined above) by completing a QSO or otherwise demonstrating obvious prior use of the frequency, I will move without further ado.

I state the above with the additional note that I never use narrow filters. I prefer to let the filters I was born with between my ears do most of the work for me. In CW contests the filters in both IF's of my FT-1000-MP are set at 2.4 KHz. In SSB contests, the filter in one IF is set at 6.0 KHz and the other at 2.4 KHz. So if I'm not bothered, nobody else should be.

73, Fred, K3ZO



From Jim WX3B:

Fred was one of the few men I ever met that I absolutely **loved** listening to radio (and other) stories from. He was one of my favorite "go-tos" as a young PVRC President when asking for propagation forecasts. Fred knows where to aim his antennas to work the skew and long/indirect paths, backscatter, or disturbed solar conditions path. He also had an encyclopedia-like knowledge of predicting propagation and he shared it at my request quite frequently, pre-contest. During one of our dinners at P.J. Skidoos, I was truly excited when Fred agreed to be our guest speaker and detail his life and times with amateur radio.

The biggest compliment Fred ever paid me was when I was a very new and (relatively) young contester with my first directional antenna on a rented hilltop QTH around 2000 or so. Fred explained that my rented QTH was hearing very well to JA/Asia - which was a huge boost to my ego at the time. Of course, Fred probably heard all the stations I wasn't hearing too, on the frequency he was listening to me on, he simply neglected to point that out.

I love listening to Fred run stations on SSB. I noticed early on that Fred's Yaesu FT-1000mp was set nicely for sharp and articulate audio, and he continued that tradition when he upgraded to his Ten Tec Orions for a long season. In the past several years, Fred collected a few Yaesu FTDX-5000's and he matched that with his desk (MD-100?) microphone on SSB for a truly enjoyable and high-quality sound. Fred's voice is downright cheerful right up to the end of a contest!!

The other joy of listening to Fred run stations is simply the sheer number of them he greets by **name** in any contest. Doesn't matter how many people are calling in the pileup - Fred is a class act when he answers with his personal greeting. This is especially noted when he is running Asian stations!!

I also confess to a certain respect and admiration for Fred's "old school" style of contesting - and how he participates in his own category. He takes naps when he feels like it. He gets on the air when he feels like it. He is proud of the fact that he never uses any spotting assistance of any kind - he tunes for his multipliers and additional QSOs - and he does not do SO2R, 2BSIQ, etc. I'm not even sure he uses computer CW keying!!

Fred's results speak for themselves. He generates a non-trivial (usually **big**) score in the contests he enjoys - which are predominantly DX contests.

Fred is equally kind to folks on and off the air. When people get into frequency fights with him, he simply finds another frequency, or deals with the QRM - it doesn't faze him. (Perhaps we should all take a lesson here!). I have seen Fred engage with the oldest of OMs and the youngest of newbies at our PVRC meetings. Everyone enjoys his company!

In summary, Fred is one of the most over-the-top, enthusiastic contesters I have ever had the pleasure of meeting - this extends far beyond when he is in front of a radio. Fred is one of kindest people you could ever have pleasure of meeting....for any reason...period!

From Jay W3MMM:

Ten years ago, I lived in an HOA and decided to set up a 20m dipole in my attic just to listen, and one weeknight night there's Fred, alone, just running Asian stations. But it wasn't just "59, 73" - Fred would inject 'arrigatou' or their local language version of thanks or greeting. With a number of those he worked, he knew them and might chat a bit more. It was quick but friendly; casual yet focused enough to provide a QSO to a large number of hams who maybe hadn't worked the east coast before, or hadn't worked the US at all. I couldn't hear even a whisper of the other side of the QSO, but there was Fred just 'holding court' and sounding like he was enjoying every minute of it.

I listened for about an hour until the band closed. That was it, that was my north star. I wanted to be like Fred - I knew I could never **be** Fred, but I was inspired by his approach and (seemingly easy) success.

I set about to buy a new house, get antennas up, learn some foreign language phrases, learned about propagation, became involved in the QSL process...it was all thanks to hearing Fred run 'em on an otherwise quiet band on an otherwise non-contest evening. That was (and is) the best of ham radio to me.

From Jim K1TN:

In 1972 the woman I was married to and I were motoring through southern Wisconsin and I spotted a business sign. I don't know the name of the town, but surely it's where Fred Laun's family was from. I wasn't a camera bug in those days, but I couldn't resist!



Just four years later that woman and both worked at ARRL Headquarters in Newington. We went on a business trip to D.C. and attended a PVRC meeting. She and I stayed with Dick Klein, K4GKD, and the Vietnamese woman he had just brought over and married. Dick (SK a few years ago) and Fred Laun were buds in Vietnam. Dick showed us around his house and said "This is the bedroom Fred stayed in when he was recuperating from being shot by terrorists in Argentina."



From Bernie W3UR:

I remember my first QSO with Fred. I was a Novice and was good friends with K3EST, Bob Cox, who was living at Fred's house in Temple Hills. Fred was living and working in Thailand and QRV as HS1ABD. Bob knew I needed HS for my DXCC.

On September 22 1979, Bob called me on the phone to say Fred was going to the 15 meter Novice band. Conditions were very good and I quickly worked HS1ABD for a new one. For several years in my teens I would multi-op with Bob and Phil KT3Y (ex WB4SGV) at Fred's QTH. He had an amazing QTH and fantastic station. Several times I operated single-op, once coming in second place in the All Asia CW Contest, from the East Coast.

I remember when Fred came home from Thailand and held a PVRC meeting in his house. Those in attendance saw how happy he was as Fred announced his marriage to his longtime sweetheart Somporn. I always enjoyed talking to Fred on the telephone and in person as he was an absolute wealth of knowledge. My sincere condolences to the Laun family, PVRC and all of the Amateur Radio operators he touched over the seven decades in which he was a ham!

From Ben N3UM:

My great memories of knowing Fred K3ZO spread over 27+ years, from 1995 to our last contest QSO a month or so ago.

In 1995 I got back on the air after 33 years QRT, with a 50-watt TT Scout and attic antennas in a North Bethesda town house. I heard huge CW and SSB signals from K3ZO on 80 thru 2M, obviously from a skilled and confident operator. I soon met Fred at an NCDXA meeting and a W3LPL open house and started learning about DX and contest operating from him. He was an Elmer and a role model without even trying. He never used internet spotting. For many years I followed his lead, until skimmers changed the CW world.

For 20+ years of NCDXA and PVRC meetings and social events I would always be sure to take the time to talk with Fred. It was a pleasure, and I always learned interesting and useful things. It was also a pleasure to watch him crank out the Qs at W3AO FD, on CW or SSB.

In 1999 I moved east to Davidsonville MD and put up a tower. Again, I heard huge CW and SSB signals from K3ZO, on 160 thru 2 M. In 2014 I moved to the Collington retirement community just east of I-495 and operated from K3CCR. Once again, I heard huge CW and SSB signals from K3ZO on 160 thru 2 M.

The ham bands will still be there but will not be the same without huge CW and SSB signals from K3ZO. Downtown DC would still be there, but it would not be the same if the Washington Monument fell over. My forced simile is imperfect. The Washington Monument could be replaced. Fred K3ZO never will be.

From Ray NM2O:

I recall seeing contest scores and a photo of Fred for his operations from the Dominican Republic as HI8XAL when I was first licensed.

I met Fred at the W3AU M/M for the CQ WW in 1970. Fred was on 40 meters with the KWM-2 and a 75S3B (round emblem) for receiving. We finished #1 USA and #3 World.

At the W3AU M/M in CQ WW CW 1971 I recall Fred was passed to me on 10 Meters. I had to quickly ask for the correct beam heading for HS5ABD. I don't remember working a Zone 26 on 10 before that QSO.

My first visit to the Maryland K3ZO future home was around 1973 when a group of PVRC members lived there. The house was a rental, and a station was set up. Antennas were only dipoles.

The operators noticed how well the site worked. They were able to easily work some of the rare DX on the bands. The location is a fairly low area with a high water table. There is a weeping willow tree on the property. That's an indication of high water table in the Mid-Atlantic area.

Hearing the reports about that location, Fred bought the property when he moved back to the DC area in 1974. He had great success with his quad. 80 Meters had a really big signal from the delta loop. The delta loop was probably supported on the AB-105 tower nearest the house. Looking at the Google Map, it's interesting to note that there are two creeks running northeast to southwest. So, beaming to Europe is enhanced by good ground in that direction. Looking carefully at the aerial map, there is a power line running northeast to southwest. Fred had frequently comment about noise from that line. It's only about 800 feet to the west.

Fred had a big signal from that location and added additional antennas on the second tower.

His activity was legendary for decades. He showed great dedication to the hobby, especially working to get every last QSL card to the owners. We will all miss his friendship and wise counsel.



Ed W3EKT was doing some clutter reduction and found this oldie-but-moldie, from the days of going to the Italian restaurant (Topolinos?) after the PVRC meetings at Fred's house or at the church in Temple Hills. Circa 1989 or so – bonus points if you know Fred's 6 character call and Don/John's 4 character calls.... Tnx to N3AM for photo touchup.



(L-R) Unidentified HS op, Fred K3ZO, Don WA8MAZ, John WB2EKK

Happy 80th Birthday, Uncle Fred – Champ E21EIC via Twitter 2017



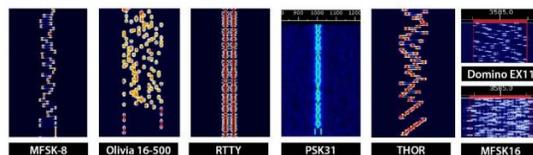
Other sources for Fred tributes:

- [✚ K8CX Ham Gallery](#)
- [✚ K1AR NCJ Interview](#)

PVRC RTTY/Digital DXCC Standings – Frank W3LPL

Below are the RTTY/digital DXCC totals for PVRC members, transcribed from the ARRL [DXCC data](#) as of the 20th of each month or so – to be listed you must show up in the relevant standings there. 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
K3WC	352	N4TL	284	N4GU	163
K4FJ	349	W2GG	281	KF7NN	161
W4PK	348	W2YE	277	NA1DX	152
N2QT	345	WS6X	274	N3AIU	143
W3UR	340	W8AKS	257	K4HQQ	142
W4DR	339	N3QE	252	NE3K	120
W3OA	336	K3JT	245	K3IXD	114
N3NT	329	K0GD	242	N3COB	112
W3LL	329	N3KN	238	N4ZH	100
K2PLF	327	W3FOX	232		
K4CIA	326	K1AR	228		
K1HTV	324	N3RC	228		
K5EK	324	N4NW	221		
N3KK	323	AA4NC	219		
WX4G	321	W3MR	213		
K3WA	319	KU1T	210		
N4DB	314	N4JQQ	209		
WOYVA	314	W3DF	206		
K3SX	312	WB3AVN	205		
K4SO	310	W3DM	197		
W3KX	306	N3ND	190		
N4MM	305	W3US	189		
N3MN	305	K5RT	188		
K5VIP	304	K3WI	188		
K1GG	301	KE4S	186		
K4WNW	295	NR4M	184		
KG4W	294	N4XYZ	174		
KA4RRU	294	K3KY	172		
W3GG	293	K3PU	171		
W3BW	289	KG7H	167		
W4VIC	288	W3LPL	164		



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](#)

February 2023

+ European Union DX Contest	1900Z, Feb 4 to 1900Z, Feb 5
+ North American Sprint, CW	0000Z-0500Z, Feb 5
+ CQ WW RTTY WPX Contest	0000Z, Feb 11 to 2359Z, Feb 12
+ ARRL Inter. DX Contest, CW	0000Z, Feb 18 to 2400Z, Feb 19
+ CQ 160-Meter Contest, SSB	2200Z, Feb 24 to 2200Z, Feb 26
+ UBA DX Contest, CW	1300Z, Feb 25 to 1300Z, Feb 26
+ North American QSO Party, RTTY	1800Z, Feb 25 to 0559Z, Feb 26

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

Editor’s Last Word – John K3TN

Thanks to Glenn K3SWZ, Peter W2CDO, Gene AD3F, Tom HP1XT, Ray NM2O, Dave KM3T, Ben N3UM, Carl K3RV, Roy WN3F, Paul, N4PD, Ken K4ZW, Mel W3MR, Jim WX3B. Bernie W3UR and Jay W3MMM for contributions to this issue of the PVRC newsletter.

As we all know, PVRC lost a giant when Fred passed away on 4 January. I started off the tribute section with a quote from a post Fred made to CQ-CONTEST over 20 years ago that included the line *“If anyone wants to invent a new category that will fit me, I will gladly change to that category and continue to have fun in the contests.”*

To me that captured the essence of Fred - he had **fun** in the DX contests, no matter what the conditions or mode. He also had fun helping others, whether suffering through domestic contests to help the club score, taking care of the W3 QSL buro or housing an amazing number of contesters over the years. I didn’t always agree with Fred, but I always had fun talking to him, or more accurately listening to him!

The quality and usefulness (and fun!) of the PVRC newsletter depends on contributions from members. If you have photos from club meetings, screen shots of new contest software, or brief writeups on station improvements or contest war stories, send them in any format to [jpescatore at aol dot com](mailto:jpescatore@aol.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.

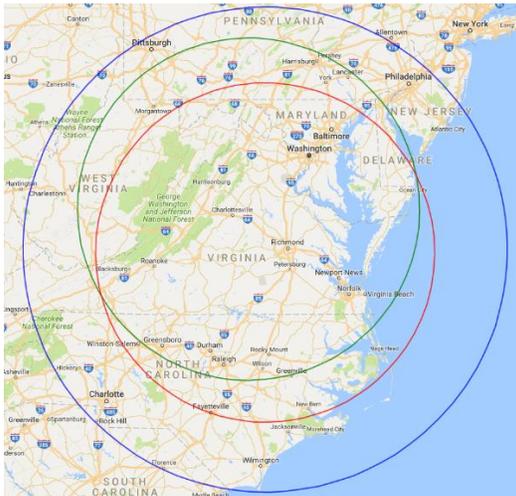
Direct donations to PVRC via Credit Card or PayPal may be made by clicking this "Donate" button and clicking the next Donate button that appears on your screen:



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](#).



Green: ARRL VHF Circle
175 mile radius
Around 38.075N,
78.171W

Red: ARRL HF Circle
175 mile radius
Around 37.43168N,
77.858482W

Blue: CQ HF Circle
250 mile radius
Around 37.43168N,
77.858482W



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!



Your source for DX News!

Get a free two week trial of The Daily DX and The Weekly DX by sending a request to bernie@dailydx.com.

The Daily DX
3025 Hobbs Road
Glenwood, Maryland 21738
Phone: 410-489-6518



PVRC QSL Cards
by
LZ1JZ QSL Print



GREEN HERON ENGINEERING LLC

(585) 217-9093
www.greenheronengineering.com

RT-21 DIGITAL ROTATOR CONTROLLERS
Unmatched Performance for any Rotator

RT-21



RT-21D



RT-21 AZ/EL



Rotator Packages



FREE Shipping for PVRC Members
At Checkout Enter Coupon Code "PVRC"

Heavy Duty Custom Mast Clamps
-for G-2800 and Orion



Wi-Fi Option
-control your rotator from any web browser device

GH EVERYWARE WIRELESS CONTROLS

- Internet access for switches and rotators
- Eliminate cables and tethered control boxes
- Create customized on-screen controls
- Great circle maps

GH Everywhere Base and Remote

- USB and wireless relay controls
- Utilizes your existing antenna switches



Select-8 Wireless Remote Coax Switch

- Built-in GHE Wireless
- Powered through the coax
- Tower leg Mount
- Amphenol RF connectors






Get on the Air with Top Brands from DX Engineering!

DX ENGINEERING

Exceptional Gear from DX Engineering

Our in-house team of hams designs and engineers DX Engineering branded equipment, from vertical antennas to advanced design thrust bearings, baluns to receive antenna phasing systems, radial plates to our brand-new heavy-duty rotator. DX Engineering also produces Butternut vertical antennas, Clifton Laboratories products, TransWorld portable HF antennas, Comtek gear, Cycle 24 saddle clamps, Hi-Z Antennas low-band receiving systems, and trusted equipment from Top Ten Devices—all backed by the best support staff in the industry. **Enter "DXE" at DXEngineering.com.**



Noise Cancellation and Audio Enhancement

By harnessing cutting-edge digital signal processing technology, bhi noise cancellation and audio enhancement products make it easier for you to discern weak audio signals and increase your radio listening enjoyment. Choose from DSP and extension speakers, DSP devices, and the ParaPro EQ20 Parametric Equalizer, which allows you to adjust any part of the frequency range to customize receive audio to suit your own hearing. **Enter "bhi" at DXEngineering.com. Speakers From \$35.99; Equalizers & Modules From \$235.99**



BHD-EQ20

Loop Antennas

DX Engineering carries HOA-friendly Loop Antennas by I3VHF, manufactured by Italy's **Ciro Mazzoni Radiocomunicazioni**. The 78" diameter MIDI Loop covers 80 to 20 meters. The popular 39.8" diameter BABY Loop and the Stealth Loop are great for working 40 to 10 meters when you have limited space. The Stealth Loop features a typical SWR of 1.3:1 and measures 54" x 19.6" x 10.2", making it easy to hide. All three antennas include the ATU 2.0 Automatic Tuning Unit. **Enter "MZZ" at DXEngineering.com. From \$1,799.99**



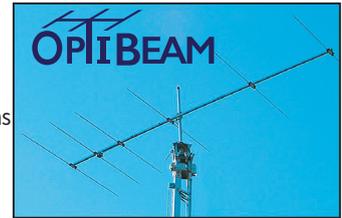
WiMo, EAntenna, Kelemen, and microHAM Products

WiMo, Germany's largest amateur radio supplier, manufactures EAntenna products—a brand well known for its budget-friendly, high-performance HF and VHF antennas, including Yagi, log periodic, rotatable dipole, and vertical models that combine cutting-edge computer modeling optimization with robust designs. WiMo manufactures 47 models of Kelemen high-efficiency, wide-bandwidth monoband or multiband dipoles and omni-directional antennas. The company is also the worldwide distributor of microHAM products, including the ARCO Smart Rotator Controller—now available in North America from DX Engineering. Check out WiMo's APRS modules, QRM Eliminator, and other gear. **Enter "EAntenna," "microHAM," "Kelemen," or "WiMo" at DXEngineering.com.**



OptiBeam Antennas

Proven in stations around the globe, OptiBeam's German-engineered, handcrafted directional monoband and multiband Yagi and log cell Yagi antennas deliver the highest possible gain, cleanest radiation patterns, optimum band coverage, and power handling without compromise. Many popular models are in stock and ready for fast shipment. **Enter "OptiBeam" at DXEngineering.com. From \$739.98-\$11,199.98**



InnovAntennas.com

InnovAntennas

DX Engineering is pleased to be the exclusive North American dealer for finely crafted Yagis, multiband HF beams, rotatable dipoles, and log periodic antennas from InnovAntennas, each one the result of extensive testing and modeling to ensure stellar performance. Antennas are built with top-grade materials, including aircraft aluminum booms and elements, UV-resistant insulators, and stainless steel hardware. InnovAntenna's DXR antennas feature low maintenance; sturdy construction in a manageable size; no hairpins, traps, or matching links; and only one feedline for all bands. **Enter "InnovAntennas" at DXEngineering.com. From \$669.99**



HF, VHF, and UHF Amplifiers

For more than 40 years, RM Italy has made versatile and compact amplifiers for base, mobile, and handheld radios. The company's high standards can be seen in everything it produces, from the 300W output BLA350 Plus HF Linear Amplifiers to models (LA-144/145) for maximizing the reach of your HTs. **Enter "RM Italy" at DXEngineering.com. VHF/UHF Amps From \$159.99; HF Amps From \$759.99**



Hamplus

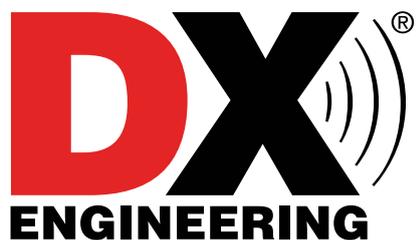
Hamplus makes innovative RF and control switching components tailored to the Amateur Radio community. The Hamplus line includes rotator switches, smart control consoles, and antenna switches that can read data from the radio and memorize antenna selections. DX and contest stations worldwide depend on Hamplus for proven results. In an exclusive arrangement, North American operators can enjoy the same advantage by ordering Hamplus products through DX Engineering. **Enter "Hamplus" at DXEngineering.com. Control Consoles From \$179.99; Antenna/Rotator Switches From \$259.99**



HPY-MBD-8F



Read What's New in Ham Radio at Our Blog, OnAllBands.com!



Ordering (via phone) Country Code: +1

9 am to midnight ET, Monday-Friday

9 am to 5 pm ET, Weekends

Phone or e-mail Tech Support: 330-572-3200

9 am to 7 pm ET, Monday-Friday

9 am to 5 pm ET, Saturday

Email: DXEngineering@DXEngineering.com

800-777-0703 | DXEngineering.com

Ohio Showroom Hours:

9 am to 5 pm ET, Monday-Saturday

Ohio Curbside Pickup:

9 am to 8 pm ET, Monday-Saturday

9 am to 7 pm ET, Sunday

Nevada Curbside Pickup:

9 am to 7 pm PT, Monday-Sunday



Proud Sponsor of the 2023 3Y0J Bouvet Island DXpedition.
Email Support 24/7/365 at DXEngineering@DXEngineering.com

Prices subject to change without notice. Please check DXEngineering.com for current pricing.

ELECRAFT K4

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!

K4 KEY FEATURES

Optimized for ease of use

Modular, upgradeable design

7" color screen with touch and mouse control

ATU with 10:1+ range, 3 antenna jacks

Up to 5 receive antenna sources

Full remote control via Ethernet



The K4 interfaces seamlessly with the KPA500 and KPA1500 amplifiers

'The performance of their products is only eclipsed by their service and support. Truly amazing!' Joe - W1GO

ELECRAFT®

For complete features and specifications visit elecraft.com • 831-763-4211

HAM RADIO OUTLET®

WWW.HAMRADIO.COM

Family owned and operated since 1971



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 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 Tuner



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



FTM-300DR | C4FM/FM 144/430MHz Dual Band

- 50W Output Power • Real Dual Band Operation • Full Color TFT Display • Band Scope • Built-in Bluetooth • WIRES-X Portable Digital Node/Fixed Node with HRI-200



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-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

FT-70DR C4FM/FM 144/430MHz Xciv

- 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-E20-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

5 Ways to Shop!

- RETAIL LOCATIONS – Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE – Toll-free phone hours 9:30AM - 5:30PM
- ONLINE – WWW.HAMRADIO.COM
- FAX – All store locations
- MAIL – All store locations

YAESU
The radio

ANAHEIM, CA
(800) 854-6046

SACRAMENTO, CA
(877) 892-1745

PORTLAND, OR
(800) 765-4267

PHOENIX, AZ
(800) 559-7388

MILWAUKEE, WI
(800) 558-0411

WOODBIDGE, VA
(800) 444-4799

WINTER SPRINGS, FL
(800) 327-1917

PLANO, TX
(877) 455-8750

SAN DIEGO, CA
(877) 520-9623

DENVER, CO
(800) 444-9476

ATLANTA, GA
(800) 444-7927

NEW CASTLE, DE
(800) 644-4476

SALEM, NH
(800) 444-0047

WWW.HAMRADIO.COM