



SQUELCH TALES



Newsletter from the Merry Meeting Amateur Radio Association
for December 2023

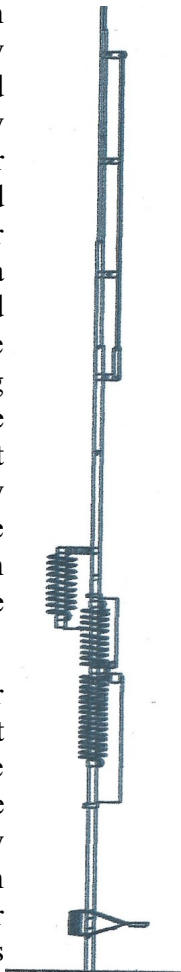


THIRTY EIGHT YEARS WITH THE BUTTERNUT HF6V

By Bruce Randall, W1ZE

In 1985 I lived in a hillside home in San Bruno California after my employer (Navy Dept.) transferred me back to the San Francisco bay area. The property was darn near vertical overlooking the SF Bay and with no trees to string up a dipole or doublet. I started thinking of a vertical of some kind that covered most of the HF bands and maybe mount it on my narrow but long rooftop. I looked at the specs on the Mosley, HyGain and Cush Craft verticals, all well built but then they all employed band traps to resonate on the individual bands. So each band was effectively a quarter wave vertical.

In an issue of QST I noted an ad for the Butternut HF6V vertical that covered 80 to 10 meters plus the then new 30 meter band. The HF6V operates as a slightly extended 1/4 wave radiator and on 15 meters, a 1/4 wave stub decoupler providing practically lossless



isolation of the upper half of the antenna on that band.

Reviews on this antenna were all positive so I made the leap and went over to the HRO store and purchased one that came in a 6-foot heavy box with lots of tubing straps and a big bag of stainless steel fasteners. At home I spread out all the parts on the enclosed patio floor and read the manual cover to cover, which is not normal for me. The manual was well written and assembly, even though tedious went well. I also purchased a 3-foot mounting tripods so it could be mounted the vertical on the roof. After I got the tripod and antenna mounted I strung out the assembly manual's recommended radials made out of 300-ohm TV twin lead and two single wire radials for 80-meters that I had to make a few dog leg bends in them to fit the roof's footprint.

Then it was time to do tuning and adjustments and that was a bit tedious also due to making several trips up and down the step ladder. Most of the adjustments were done by expansion and contraction of the three big coils made out of hard drawn No.8 aluminum wire. After that was completed the SWR plot on each band was "Sweet" and fairly broad on each band. On 40 and 80 meters the bandwidth narrows and since I like DX and

CW I tuned those bands to the low end. The sweet spots were 1.1:1. On 7.05 and the 2:1 bandwidth was 7.0 to 7.150 MHz. However on 80 meters the bandwidth is very narrow due to its very high-Q, The 2:1 SWR bandwidth was 3.50 to 3.58 MHz, OK for 80 meter CW DXing. I was pleased with it's performance. I even noted it showed a moderately low SWR at 52 MHz but I expect the radiation was very high angle.

A year later we found a bigger home up in Petaluma, California where I reinstalled the HF6V in a ground mounted configuration using a chicken wire ground field as the counterpoise in the backyard and it worked just as well as the roof mounted radial arrangement. It was my main antenna for 80, 40 and 30 meters because by then I had a 40-foot crank-up tubular tower with a TA-33 JR tri-bander on it plus a 40 meter dipole.

In 1992 the Navy decided to close shop in San Francisco so I managed to retreat back to Maine to finish out my career. And yes, the HF6V tower and beam came with me. The HF6V again was ground mounted in the backyard of my West Bath home and continued to work well. After I retired and we decided to downsize our housing we sold the West Bath QTH and built a smaller one story ranch home in Phippsburg. Yep. The HF6V got ground mounted again along side the house in kind of a boggy area with very good ground conductivity and that vertical is still in use today, especially on cold dark nights on 80 Meters CW and FT8. That multi-band vertical was a great investment.

If you think you would like multi-band vertical with good performance you may want to consider the Butternut HF6V, HF2V and all-band HF9V verticals.



QCWA NEWS



The Quarter Century Wireless Association (QCWA) is the sponsor of the W2MM Special Event Station annual event, which runs for 7 days beginning the first weekend of December.

[QCWA members only in the US and its possessions will have an opportunity to activate W2MM for this event. Contact QCWA Activities Manager at \[activitiesmanager@qcwa.org\]\(mailto:activitiesmanager@qcwa.org\) for more information and scheduling.](#)

Stations activating W2MM must submit their log in an ADIF file only to: activitiesmanager@qcwa.org Submit log by the end of the third week of December. Please use the following format when naming your file: (Your callsign)_SE2023.adf. At the end of December, all stations working W2MM will be able to download a commemorative certificate.

QCWA thanks Louis Maggio NO2C for this service. Since Lou is providing this service on a volunteer basis, please expect a 2 to 3 month lead time to access your certificate.

Event Details:

Start Time (UTC): 0001 - Start Date: December 2,
End Time (UTC): 2359 - End Date: December 9

Celebrating QCWA's 76th Anniv.on December 5
CW: 3.540 7.035 14.040 21.050 28.050
SSB: 3.810 7.244 14.262 21.365 28.325
FT8/FT4 - standard frequencies 80/40/20/15/10

(Note: expect W2MM to be within 20 kHz of the above frequencies on CW and SSB)

47 & 73, John Kludt, K7SYS
Activities Manager, QCWA, Inc.
activitiesmanager@qcwa.org

QCWA members and friends are encouraged to check into the Maine Pine Tree Chapter 134 "Pine Cone Net" every Sunday afternoon at 2:00PM on 3942 Khz. This net is open to all hams.



A Very Small Quality High Current Switching Power Supply on a Budget

By Bruce Randall, W1ZE



This fall while attending NEARfest in New Hampshire I came across a tailgater selling odds and ends of stuff. While overlooking her stuff I spied several small HP DSP-750RB plug in switching power supplies in A-1 condition. These tiny power supplies, smaller than a carton of cigarettes were marked as 12.2 Volt 67 amps. Hard to believe that a package so small could deliver that kind of current. She had them marked a price \$15 on them. I asked her if they worked and she said, “as far as I know they were working when taken out of service.” I thought to myself that for \$15 I would buy one and take it home and play with it.



After returning home the next day I went on line to see what I could find out about this Hewlett Packard Server switching power supply. There was quite a bit of info about them and yes they were rated at 12.2 VDC, 750 Watts at 67 amps.

I found a website with photos on how to jumper two edge connector pins with a small resistor so that the little device would start up when plugged into 120 VAC. <https://makenotes.de/2020/04/turning-on-a-hp-dps-750rb-server-power-supply/> I soldered in the resistor jumper, plugged it in and the power supply came to life (green LED lit up) With my digital multi-meter I measured the voltage on the two big edge connectors strips on the rear of the unit and the meter said 12.21 volts. I then turned on my IC-7610 transceiver and looked to see if the power supply was generating any detectable EMI/RFI or see any hash on the receiver waterfall, not a bit. I then connected the supply to an almost flat 12 volt gel cell so that it would draw a bit of current and still no EMI/RFI detected. My find and \$15 investment was well worth it.

I looked online (Ebay) and there were a lot of DPS-750RB switching supplies there for sale around \$20. There was quite a few HP DPS-460 supplies for sale too. They looked exactly the same but rated at 12.2 VDC, 460-watts at about 38 Amps for around the same price.

12.2 VDC is good enough to supply today’s modern transceivers and with current ratings in excess of 30 Amps that is more than adequate. However, 60 Amps is enough to supply a 200-watt transceiver, a dual-band FM transceiver along with other stuff in your shack.

If you want a quality built and low noise switching power supply with only a small investment this may be the way to go.



HOUSEHOLD RFI, A NEVER ENDING PROBLEM FOR HAMS

By Mike Adair, N1MA

Recently we replaced several of our kitchen appliances with modern (working) ones which of course all contain computers. After that I go up to play radio and I have a noise level of about S8+. So I am thinking, oh no I have ruined everything and I have to live with the appliances. To determine the culprit I shut off the kitchen and to my surprise the noise level didn't change. After many many trips from the basement to the shack I identified what appears to be the primary problem. It is — TaDa -- the garage door opener, which was new a couple of years ago and has never been a problem. It must be something catching (from Bruce, W1ZE) that is running around the neighborhood. Now I don't know what changed, but at least I have something reasonable to investigate and am at peace with the new appliances.

Related, the laundry, which I have on a switch, is good for an S9. I tried 3 ferrites on each machine just to see if they made any difference. None that I could see. I guess we are down to actual EMI filters.

Maybe an item for a meeting presentation(s) we should all start providing lessons learned from fixing our noise problems.

73, Mike

Followup by W1ZE:

As Mike indicated, he was getting EMI from his garage door openers an EMI virus from yours truly. Yes, I too had that issue at my QTH. I did the same extensive elimination process that Mike did that caused me to burn up a few hundred calories traveling from the basement's 200-amp breaker panel to the ham shack and various locations around the house to see if I could identify possible EMI sources.

Like many of you I suspected those cheaply built Chinese low voltage wall warts (small plug-in switching power supplies) that comes with half the appliances and gadgets in the house.

My big received noise area was on 75-meters around 3940 KHz during the day where noise would approach S-9. Yes, some of that noise is daytime sun noise but not all. Switching from my big horizontal loop antenna to my ground mounted vertical the noise would drop to S3-

S4. The loop is a NVIS antenna that literally goes around the house about 25 to 30 feet above ground. That indicated that the noise was coming from inside the house.

I then cut power to the whole house leaving my IC-7610 to run off the 12 volt battery backup system and noise level dropped to S-2.

Little by little I turned on each breaker with the Icom back on the big loop antenna. Most of the circuits did not increase noise much but when I turned on the breaker feeding power to the garage the noise jumped up. I went into the garage and turned off the overhead LED lights, and unplugged electrical yard tools that were on wall wart chargers. No big change there, but when I turned off the kill-switch feeding the two garage doors openers the noise dropped considerably. "FOUND IT"

I got most of the noise reduced from the two GD openers by installing a AC EMI line filter in the kill switch box and put ferrite chokes on all the low voltage control wires coming out of the motor units and that has greatly helped.

73, Bruce



ARRL Maine Section Manager's report

By Phil Duggin, N1EP

MAINE-WIDE POTA DAY!

Jeff Hanscom KA1DBE, president of the Ellsworth Amateur Wireless Association and Assistant Section Manager for Maine, is organizing a state-wide POTA activation for Saturday, May 18, 2024. Maine clubs and individual hams are asked to activate a Maine state or federal park on that date. This will be widely promoted to give POTA fans far and wide a heads up to work Maine parks on that day. What a fun event this can be for yourself and club members. ARES teams and other groups are also encouraged to join in the fun. There are 32 state parks, 4 national parks, and a multitude of national wildlife areas and other entities in Maine that can be activated. Check out parksontheair.com for rules, a map and

other details of sites near you. Direct any questions to Jeff - email j.hanscom@gmail.com

MAINE BULLETIN 23-002

CanAm Dog Sled Races Looking For New Radio Comms Chief

After 12 years of service, Derrick Ouelette KW1A has stepped down as the Radio Communications Chief for the Crown CanAm Dog Sled Races. The organization is looking for a replacement. Responsibilities include coordinating communications for five different checkpoints and two field spots. Making sure everyone has equipment and getting radios from the state out for SAR is another Radio Comms Chief duty. Understanding public safety agencies is also a plus as the radio operators work close with them and use the MSSCOM net as well. If interested in this position, contact:

can-am-board@googlegroups.com.

Thank you Derrick for doing an amazing job these past 12 years!



The MARA Executive Board and Association Officers want to wish all our Squelch Tales readers



