



The Wireless

November 2025

The Garden City

Amateur Radio Club

PO Box 482 • Garden City, MI 48135-9998



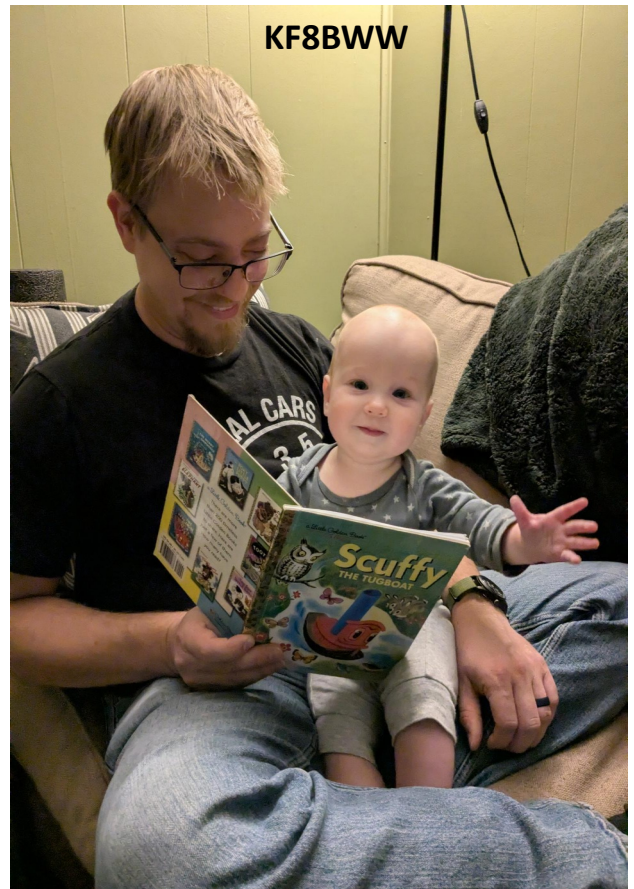
Next Meeting:
 Tuesday, November 18, 2025
 7:00pm
 Garden City Presbyterian Church
 1841 Middlebelt Road
 Garden City, MI 48135

2026 Officer Elections Are Coming Up!

Don't forget that we will be voting for our 2026 Club Officers at the November 18 meeting. As of our last meeting, we have only received 2 nominations:

For President, Ralph KD8NFH, and for Vice President, Roy W8ROY.

Nominations will be re-opened before the vote, so it's not too late to consider serving our club in this way.



Mat-Matics # 124 - Hy-Gain Omni DX-88

M. Breton, N8TW

Many years ago Don Mihalik (W8EZL, SK) gave me an old Hy-Gain 18-AVT vertical antenna. This happened not long after I got my ticket and had just bought my first HF rig. Don himself had received it from the estate of another ham operator (I did not get the person's name). This 18-AVT 5-band trap vertical antenna served me well for 10 years or so. It was a 1960's model that was built to handle a couple kilowatts of power. The traps are several times the size you seen in newer verticals. The only issues were that it didn't work on 12M, 17M, 30M, and it had a tiny non-adjustable bandwidth on 80M (very large top-coil, whip cut to length).

When I picked up another free antenna as part of the crank-up tower I was able to get from craigslist I decided to replace the 18-AVT. In keeping with tradition, I gave the Hy-Gain 18-AVT to Don Fellows (KC8VCX) for his first HF antenna. Don Mihalik would be proud, as would the original owner I am sure. Not bad for an antenna more than 50-years old! The new antenna is a Hy-Gain Omni DX-88. It came out around 1990 and still sells today (currently runs \$400 not including S&H). It is about the same height as the 18-AVT but weights a bit more and covers 3 additional bands (12M, 17M, 30M). Additionally the documentation said that the 40/80M bands segments were adjustable without taking the antenna down. The chart below shows a general comparison of the two, plus two comparable Butternut verticals.



*Editor's Note:
The 18-AVT5
(pictured here) is
still in use in my
yard, and is still a
solid performer.
-DF*

	Vertical Antenna				
	Hy-Gain 18-AVT	Hy-Gain DX-88	Butternut HF6V	Butternut HF9V	Comment
Height (ft in)	25'	24' 9"	26'	26'	
Weight (lbs)	14	18	14	12	
Max Wind Speed (mph)	80	75	80	80	
Max PEP Power (W)	2000	1500	1500	2000	80M Max PEP = 30M Max AVG = 250W 17M Max AVG = 500W
Max AVG Power (W)	???	700	???	???	30M Max PEP = 500W
# Bands	5	8	6	9	6/30M Max PEP = 500W 12/17M Max PEP = 800W
2:1 Bandwidth, Min VSWR					
80M	45kHz, 1.50	75kHz, 1.10	50kHz, 1.30	35kHz, 1.10	
40M	Entire Band, 1.05	165kHz, 1.25	200kHz, 1.5	150kHz, 1.20	
30M		115kHz, 1.05	Entire Band, 1.30	Entire Band, 1.30	
20M	360kHz, 1.20	260kHz, 1.05	Entire Band, 1.20	Entire Band, 1.20	
17M		Entire Band, 1.20		Entire Band,	
15M	Entire Band, 1.20	Entire Band, 1.05	Entire Band, 1.10	Entire Band, 1.10	
12M		Entire Band, 1.15		Entire Band,	
10M	Entire Band, 1.20	Entire Band, 1.05	Entire Band, 1.30	Entire Band, 1.30	
6M				???	

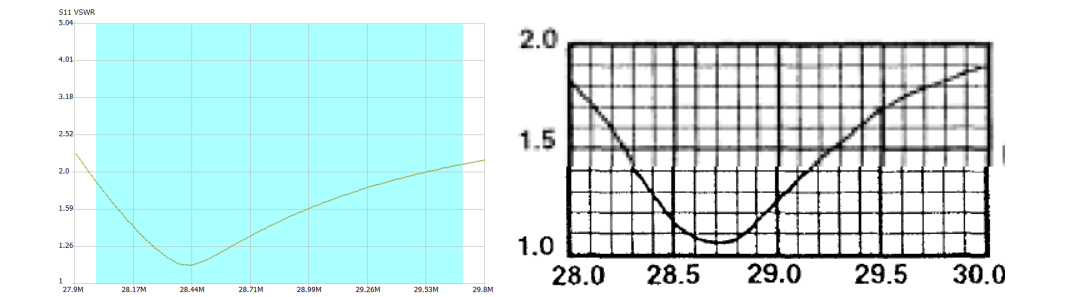
At first glance the antenna is pretty standard design: the 10M, 12M, 15M, 17M, 20M, and 30M segments are all parallel (blocking) traps. The differences are:

- The tuning for the 10M, 12M, 15M, and 20M bands that are done at the traps (by adjusting the capacitors). 2
- The tuning for the 40M/80M bands are done by adjustment at the base.

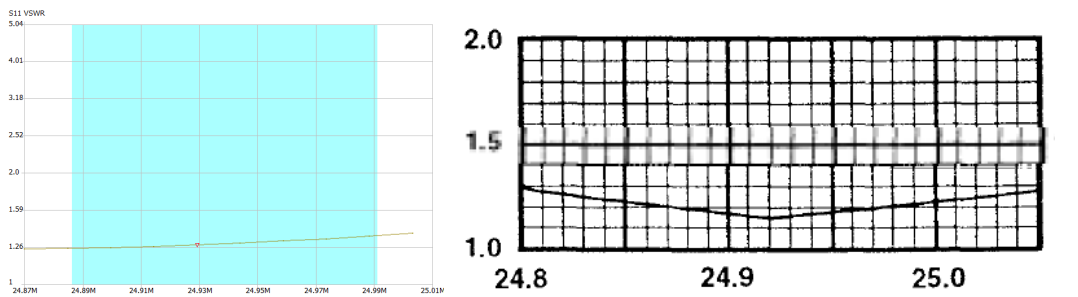
Note that the 30M segment is adjusted by changing the tubing length (as with many other trap verticals), with the trap being "fixed" at the factory.

The other advantage I liked was the lower theoretical takeoff angle on many bands that would support better DX contacts.

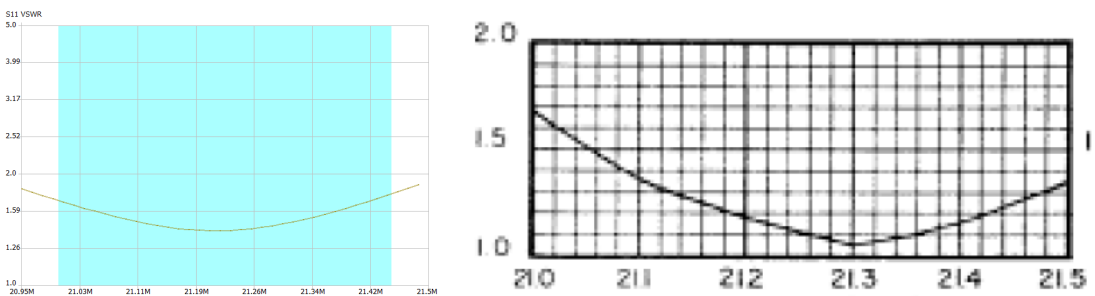
The final results were much improved. 30M and 17M band were much broader than the Hy-gain graphs showed, but I believe my measured results as the bandwidth as a function of a frequency appears rational. I didn't achieve super low VSWR on any band, but most were "low enough" to operate without a transmatch (my target was < 2:1 for my solid state transceiver).



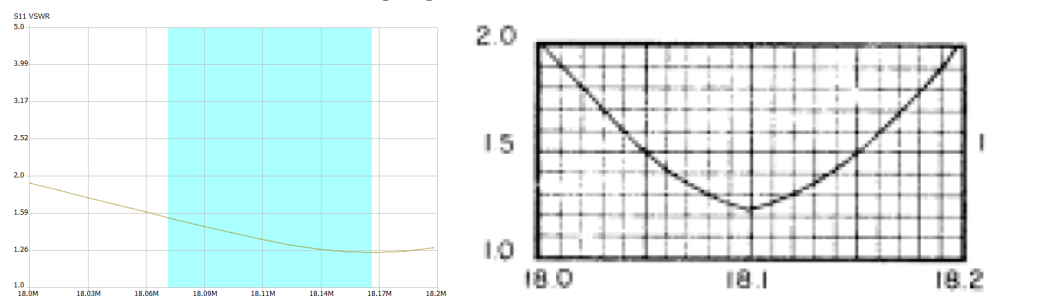
10M: My measurement (left) vs the manual typical (right)



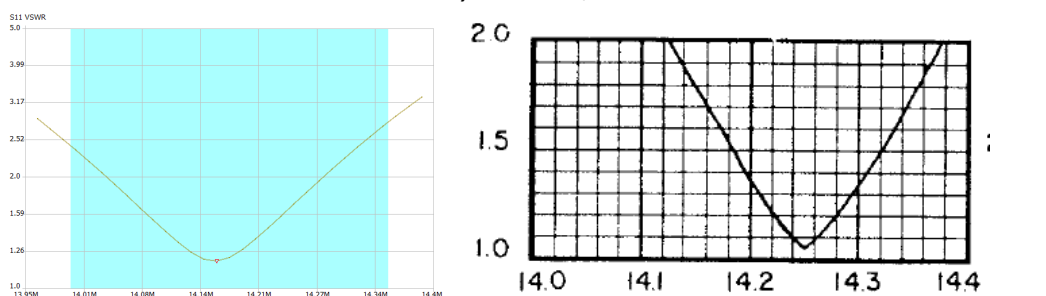
12M: No issues



15M: The area highlighted in blue is the US Ham Band

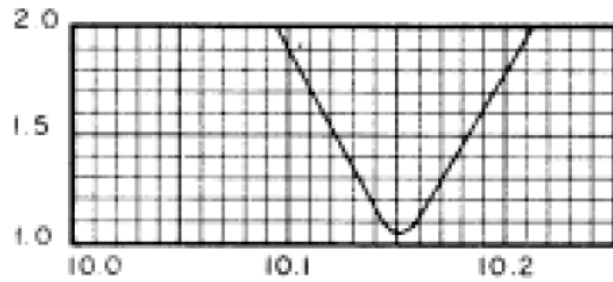
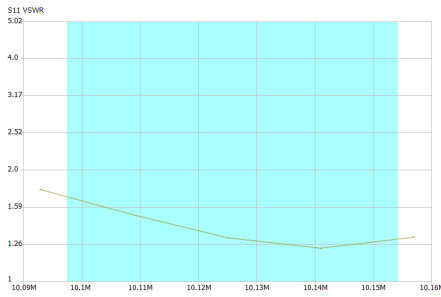


17M: Not exactly centered, but still OK

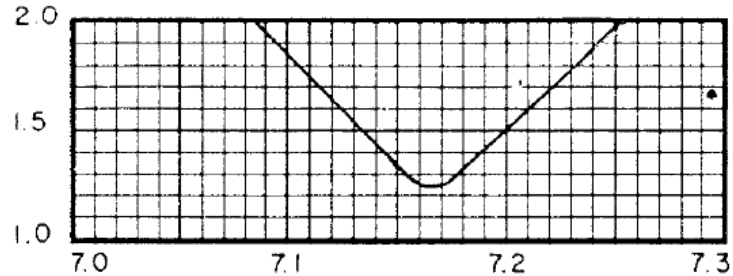
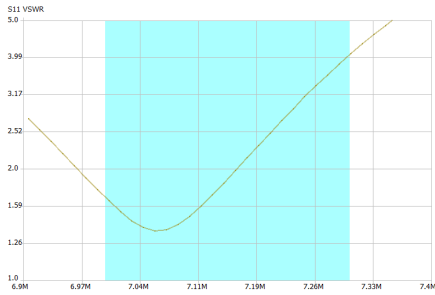


20M: Adding feedline losses likely "broadens" the bandwidth

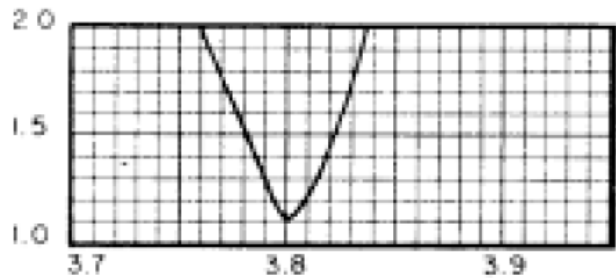
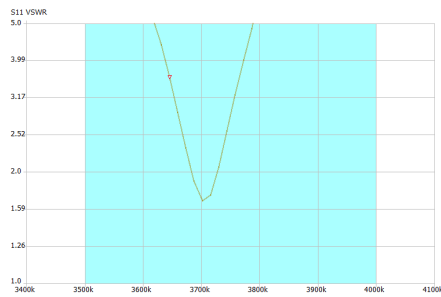




30M: Note the measured results are much wider

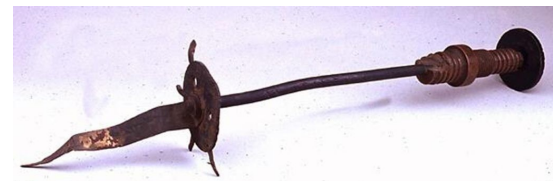


40M: Could not center and simultaneously keep 80M resonance low



80M: SWR is not great even at resonance

Summary: I replaced my 5-band trap vertical with an eight-band trap vertical. The cost was a few dollars for the replacement bracket and some stainless hardware. I can operate without a transmatch for six bands, and can get decent coverage with a transmatch on two others. The 80M segment remains an issue due to the very narrow bandwidth, and it is likely I will need another antenna to get the broadband coverage I desire. My former antenna has gone on to serve another ham. Below is a final comparison of the old versus new vertical SWR showing the new available bands.



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2025 Jamboree-On-The-Air Recap

Richard Zarczynski, AC8FJ



You may recall me previously mentioning on the air and in our club meetings about Scout Troop 1841 (Girls) that Scott Deykes/WT8S and I belong too. The Troop had a weekend campout scheduled for October 17th at Maybury State Park in Northville.

We camped along with Troop 1382 (Boys) Livonia’s St. Pricilla. Also invited to visit our camp on Saturday, were older cub scouts with the Arrow of Light award who would soon be crossing over into the Boy Scout program. They would experience what consisted in a scout camp environment.

This coincided with the well-known and publicized yearly Jamboree on the Air and Internet event. This is where Scouting organizations of all types, all over the world, use any type of communication devices in making contact with other scouts. Curious scouts would ask each other as to what scouting life was like in their neck of the woods.

I had set up a portable ham radio station (sponsored by the GCARC) using a generator, since no power or water is available on site. Using pre-defined frequencies allocated for this event on 20 and 40 meters, we searched for contacts throughout the day. Propagation was very good that weekend making it possible for our Scouters* to speak with other scouts on-the-air. Some of the places we were in contact with were scout camps or ranches in Idaho, Georgia, New Jersey and Mississippi. Since the New York contest also took place that weekend, some operators from that state were kind enough to spent a few minutes speaking with our scouts too. This is true also with a few Parks-on-the-Air operators. As much as I tried, just couldn’t get an operator from Luxemburg to hear me using my HF omni-vertical antenna.

A short lesson was given as how signals travel around the world and what limitations we encounter in making successful contacts. Scouts had lots of questions we had fielded that day. This was a great prequel for them to consider earning the Radio merit badge.

One scout showed interest in becoming an amateur radio operator.

All in all, this was one of the highlights of the weekend. Others were scouts performing requirements in camping that is needed for their own advancement levels.

(*Scouter: an adult volunteer in the BSA/SA)



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AMATEUR RADIO/COMPUTER SWAP

SUNDAY, DECEMBER 7, 2025

L'ANSE CREUSE AMATEUR RADIO CLUB 52nd ANNUAL SWAP & SHOP



Balkan American Community Center

1451 E. Big Beaver Road
Troy, MI 48083

8 AM – Noon

Vendor Setup: Sunday at 6:30 AM.

SWAP TICKET: \$10.00

(Kids under 12 Free)



NEW & USED EQUIPMENT:

- **RADIOS** – Amateur, Commercial, CB
- **ELECTRONICS & COMPONENTS**
- **COMPUTERS AND SOFTWARE**
- **ACCESSORIES**

DOOR PRIZES:

(deposit swap ticket at club table)

- 1st \$ 100, 2nd \$50, 3rd \$25
- ARRL GIFT CERTIFICATES

SWAP FEATURES:

- **FREE PARKING**
- **FOOD & DRINKS**
- **VE TESTING**
- **Talk-In: ECHO Repeater 147.08+ 100hz**

Radio Raffle

Yaesu FT-710 AESS W/ Speaker



- HF/50 Mhz - 100 Watt SDR Transceiver
- 3DSS 3- Dimensional Spectrum Stream

Raffle ticket: \$10. Available at the club table/advanced reg.
Winner will be drawn before the end of swap
(You do not need to be present to win!)

FCC EXAM SESSION:

VE Testing: Doors open at 8:30 AM, Testing Starts at 9:00 AM. You will need to bring \$15.00 cash, copies of existing licenses or CSCEs, (originals will not be accepted), two pieces of ID (one must have a photo). You must provide an FRN by registering in the FCC CORES system before exam day.

PRE-REGISTRATION is Preferred. Questions: Contact Gregg, n8geo@arrl.net

For Additional Information Contact:

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LCARC Swap Chairman
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Sterling Heights, MI 48313
n8har1977@gmail.com - Please put 'LCARC Swap' in subject.

Please see reverse side for advanced registration form