



# SIGNAL



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## MESSAGE FROM THE EDITOR

de VLAD W1MTI

August is behind us, marking the fourth month that the position of NVARC club president remains unfilled. We all hope it will change soon.

There were no official meetings, and no official reports were submitted for publication. Yet there were a number of events worth mentioning. One is HamXposition in Marlboro, Mass. Last year while attending the conference I was wondering if I have already visited all of the meetings of interest. This year the conference had a number of engaging new topics and well prepared speakers. In fact there were many more presentations than I could attend, partly because many interesting lectures we run in parallel - at the same time slots.



*Les, N1SV operating from the top of Wachusett Mountain.*

Hopefully, next year I will catch up with the ones I missed this time.

Another notable event, at least for me, was ARRL UHF distance contest. For one, I wanted to dabble in GHz part of the spectrum, and test my equipment at 23 cm band. On the first day I couldn't make a single contact on 1.2GHz. On the second day, an hour before the contest ended, I succeeded in "climbing" Wachusett Mountain, only to discover there Les, N1SV with his portable station mounted in this Toyota Tundra.

I didn't have a permit to operate from the top, but I have managed to drag my station (that included two 80 lb sand bags to stabilize antenna mast) just a few feet below the top. Yes, I didn't have 360 degrees open view, but even NE-N-NW open-

ing was enough to make a couple of contacts. Within a minute of "CQ TEST"-ing I made my first 100+ km 23 cm band contact with Sigurd, KJ1K roving in the Berkshires. The lesson I have learned is that successful operating on microwave bands requires cooperation and scheduling. Time and place are essential to make contacts on UHF and even more so on SHF bands. So, as soon as the contest was over, I have joined North East Weak Signal Group. I hope that time of unproductive listening to the background microwave noise while feeding mosquitos is over. We shall see.

Other NVARC members also weren't staying idle either. Besides regular gatherings at Tiny's, some members were working for the benefit of the club and club's members. John, K1JEB, has finished NVARC member's badges. Now every member in good standing will have a chance to demonstrate their kinship to the premier Ham Radio Club of Massachusetts. Thank you John.

And, of course I must mention that NVARC had its first Picnic in years! It was hosted by Dennis, K1LGQ. I am looking for someone to write at least a short article about it. Thank you Dennis.

## NEW FAVORITE?

de JOHN KK1X



I've started up my POTA (Parks on the Air) activities again, and I've been having a good bit of fun. My "go to" antenna has been an old PAR end fed that I picked up from N1PQ a few years ago. I have been very pleased with its performance.

I spend altogether too much time watching YouTube videos, but I've discovered another antenna worth trying. It's a bit more setup, as there are radials involved. The Rybakov antenna is a "random" wire vertical. "Random" in this case is 28 feet. While it works, this length might not be optimal. Looking at other resources<sup>1</sup> suggests that a length of 34 feet might work better on a wider set of bands. A "random" 34-foot wire should work on all bands from 10m to 40m, even the

<sup>1</sup><https://udel.edu/mm/ham/randomWire/>

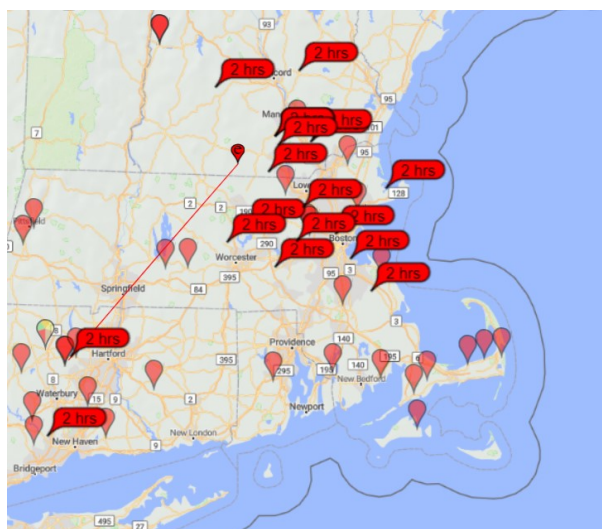
WARC bands. A length of 66 feet supposedly supports the use of 80m as well, although with low efficiency due to the relatively short wire length. Anyway, this antenna is simplicity itself. Mine consists of a 28-foot vertical, supported on a telescoping fiberglass mast, a 4:1 UNUN from LDG (\$30 at HRO), and a few radials. I used two radials in my first outing, and it worked quite well. I used three radials this morning, had a great time and noticed no meaningful difference. No science was brought to bear on this analysis.

This photo doesn't quite clearly show that the radiating element is connected to the "hot" side of the UNUN and radials are connected to the ground side. That's it. That's the antenna.

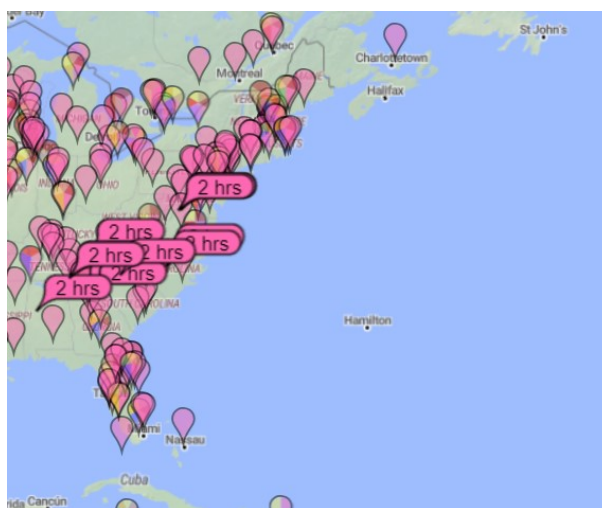
Using the auto-tuner in my Icom IC-7300, I was able to tune and make contacts on 40m, 20m, 15m, 10m, and even pulled in a 6m contact with Fred, AB1OC. This was on July 31. 15m was kind of dead that morning, but it was hopping pretty well on the 30th.

Now, I claim my location was compromised, but see for yourself. I was in the parking lot of the Oxbow National Wildlife Reserve in the Still River section of Harvard. It's about 50 feet above the Nashua River. I managed to find a nearly level spot to park so the antenna was mostly vertical, the base perhaps three feet above the ground. I had a 25-foot coax feedline and a 1:1 choke at the radio.

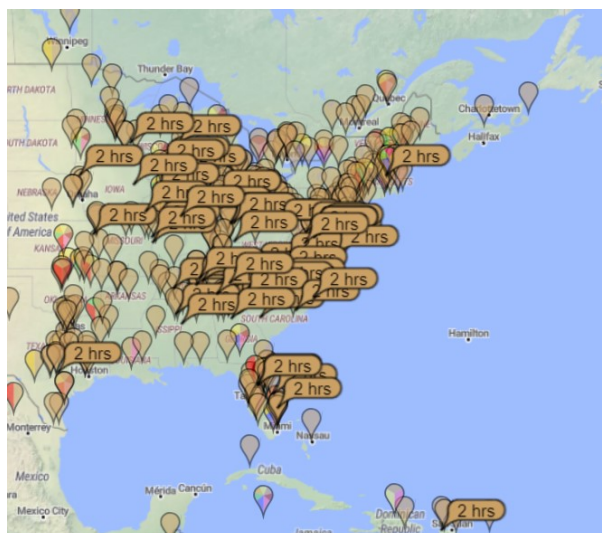
After working through the bands, I looked at PSK Reporter to see how my signal was getting out. Now, this is far from "scientific", but the results are positive - see the pictures.



*PSK reporter data for the 6 meters band.*

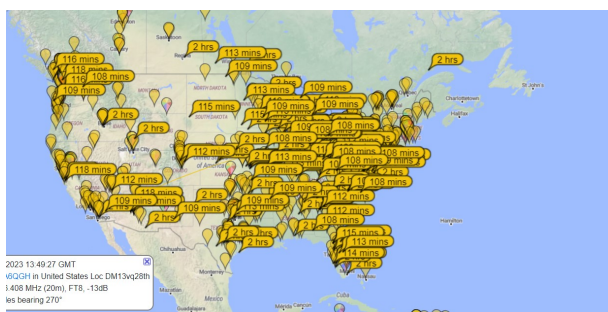


*10 meters.*



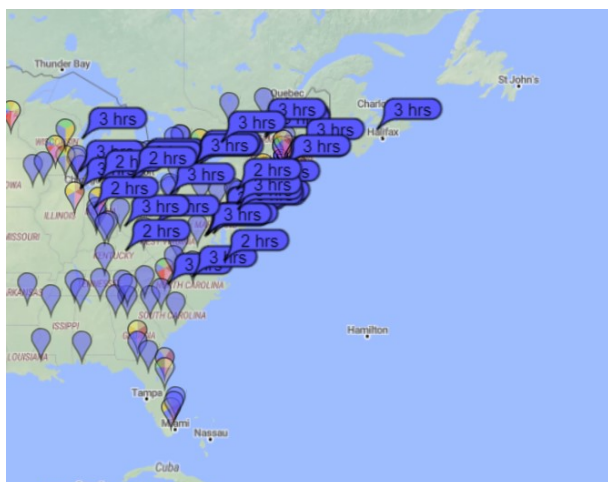
*15 meters.*





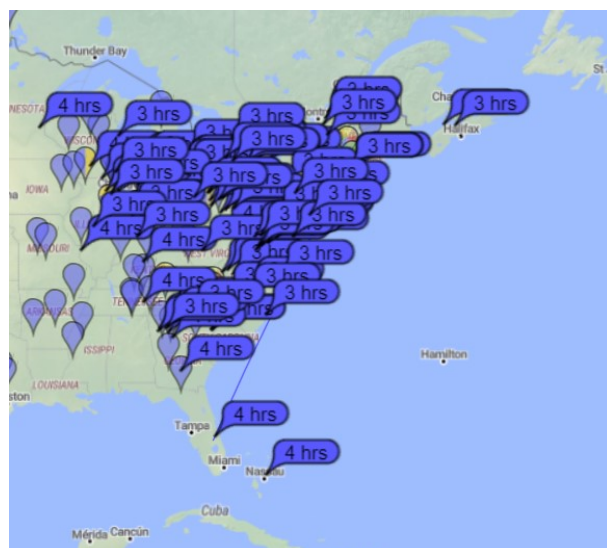
20 meters.

On August 1, 2023, I got up early and drove to Leominster State Forest. I was on the north edge of Sterling, parked at a trail head. I deployed the Rybakov antenna again, and over the course of two hours, I accumulated 28 QSOs on 40m FT8. PSK Reporter shows a pretty good range, considering grey line had passed hours before.

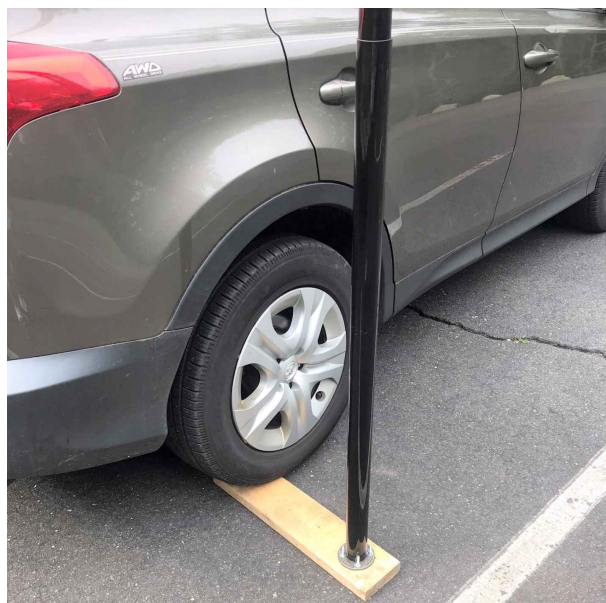


40 meters.

Lately I've been using a telescoping fiberglass mast to support the antenna, especially in parks that aren't so remote. Prying eyes look askance at ropes in trees, so if there are people around, I tend to use the mast. Holding the mast vertically while operating can be a trick. Lashing it to a fence works, but sometimes the park people get unhappy. Driving stakes to guy the mast also tends to upset folks.



I'm sure I copied this idea from somewhere, but I screwed a 1 1/2" pipe flange to a section of 2x8, and a piece of pipe screws into that to support the mast – no guys! I park the car on the board and extend the mast. The one issue is that the mast sits ON the pipe, so it must be extended, then lifted into place. Not difficult, but it's messy. And yes, it is easier to drive squarely onto the 2x8 if it's on the driver's side of the car where the board is visible.



The roll on antenna base.

In today's outing, I made 15 contacts overall. I avoided 20m until the end because I knew it would be wall-to-wall signals and no place to park.

On July 30, I made 20 QSOs from the Brookline NH town beach, using only two radials, and managed contacts on 10, 15, 20, and 40 meters. I didn't try 6.

Subsequent activations at Leominster State Forest and the Nashua River Rail Trail (at the Broadmeadow parking area where the residents call the police – just sayin') and made contacts on all bands. I even managed a contact with Samoa, and was clearly hearing a bunch of JAs who were not hearing my 10 watts.

*Project Big E 2023 is Looking for your Support. Contact either Bruce, K1BG or Larry Krainson, W1AST at: [W1AST@arrl.org](mailto:W1AST@arrl.org) or 413-348-3289.*

**THE BIG E**

16 DAYS until The Big E! **SEPT 15 - OCT 1, 2023**

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## NVARC's BADGES!

**de NVARC, N1NC**

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NVARC member's badges are completed and are ready for distribution. I would like to thank John, K1JEB for his time and effort. The badges will be distributed in person at the next NVARC General Meeting. Come in and pick yours!

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## ARRL 222 MHz AND UP DISTANCE CONTEST

**de LES N1SV**

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Thanks to W1JHR for getting me the permit to operate on Mt Wachusett! Conditions Saturday seemed flat until I worked VE3ZV on 222 at 2305 km! I worked N2YTF who was on a family outing on Mt Washington (204 km) and I was floored when he said he was using 2w on 1296 FM and a rubber duck antenna. I think the only disappointment was hearing W8ZN (657 km) Q5 on 1296 and not being heard by them. I guess I just need a little more signal on my end. Sunday morning I got buzzed by a MA state police helicopter for about an hour that apparently was looking for a missing car? Kept thinking am I doing something wrong? again conditions seemed flat on Sunday

but great to work KC6CIH on 1296 who had backpacked up Mt Kearsage (101 km) and texted me. Sunday's disappointment was having the 1296 IF radio die when trying to work WA1PBU. For the rest of the contest had the 222 IF radio doing did double duty.

Band	QSOs
222 MHz	30
432 MHz	32
1.2 GHz	19

Total: 81. Total Score = 25,648.

Club: North East Weak Signal Group



## ARRL VOLUNTEERS-ON-THE-AIR (MASSACHUSETTS) LOOKING FOR VOLUNTEERS

**de LARRY, W1AST**

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Are you interested in becoming an activator for the ARRL VOTA Fall operating week? The dates for the fall schedule are November 1 through 7.

There are currently 14 ops signed up and room for more.

We're looking for people that can spend time getting on the air and making contacts. All modes of operation are welcome. During the Spring VOTA, Massachusetts made over 9000 Qso's. We'd like to beat that this time around. Would you like to be part of that?

To find out more, contact ARRL VOTA MA State Manager Larry Krainson; W1AST at [W1AST@arrrl.net](mailto:W1AST@arrrl.net) by October 1st.

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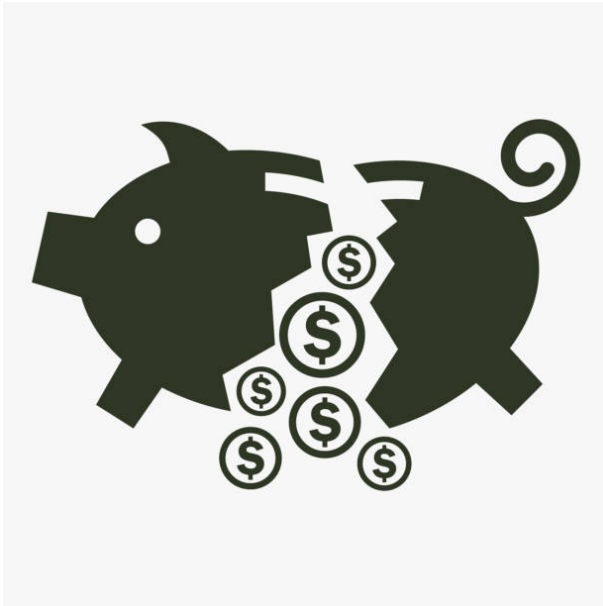


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## THE TREASURER'S REPORT

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The treasurer's report for the month of August is not available at the time of the newsletter publication.



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## NVARC BOARD MEETING

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There were no official Board Meeting in August.



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## NEXT GENERAL MEETING

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There is no General Meeting in August. Next general meeting will be in September.

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## NVARC'S 2 METER NET

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The NVARC Information Net is held Monday nights at 7:30pm, Eastern time on the 2m Pepperell repeater, N1MNX: 147.345MHz +100.

The repeater has been recently repaired by James, N8VIM - check it out!

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## NVARC GENERAL MEETINGS

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NVARC General Meetings are scheduled for the third Thursday of the month at 2430 UTC (7:30pm, Eastern Time), except for July and August, when no General Meetings are held. When held, meetings are at the Pepperell Community center.

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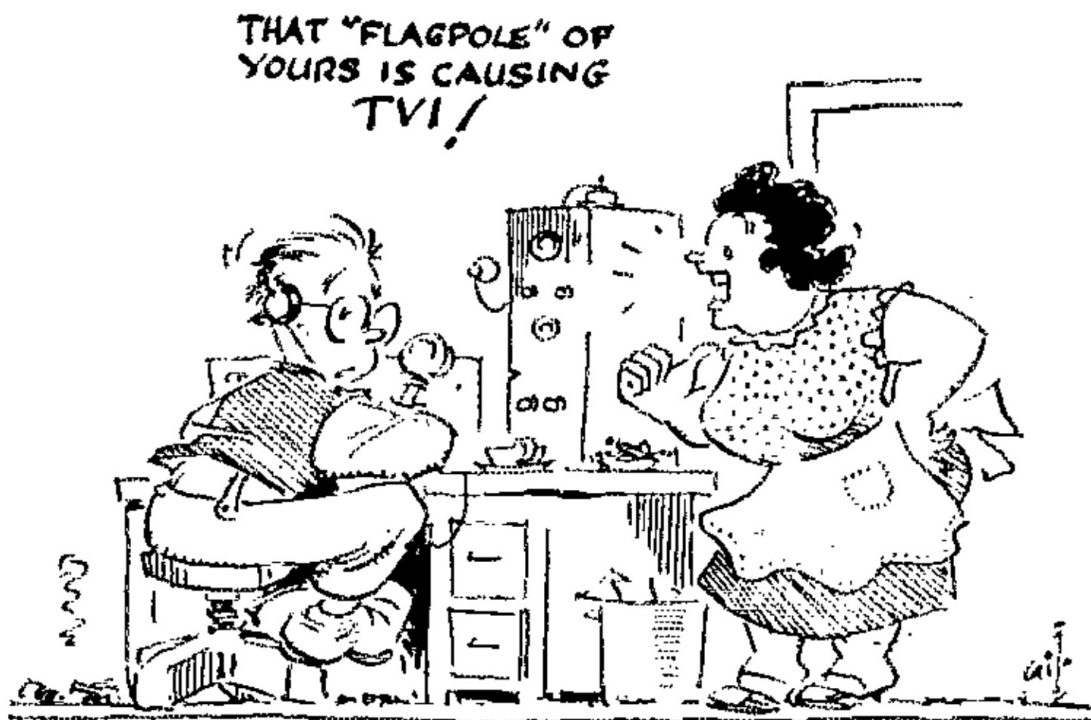
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## Strays

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## Miscellaneous

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Everybody please note that we are always glad to welcome contributions from any amateur on a wireless subject. Send us your ideas or photographs or long distance record or anything in the freak line you have noticed. Never mind if you cannot express yourself to your satisfaction. Write it out any old way, and we will do the dressing up if it should need any.

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Remember, everybody, that we will print free of charge for sale and want ads. for second hand apparatus up to any reasonable number of words. Practically the entire amateur wireless contingent of the country will see QST and there is always some one who wants what you have to sell or exchange.

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*From QST, 12-1915.*

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# Contest Calendar

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## SEPTEMBER

2/3 [All Asian DX Contest, Phone](#)

2/3 [IARU Region 1 Field Day, SSB](#)

9/10 [ARRL EME Contest](#)

9/11 [ARRL September VHF Contest](#)

16/17 [ARRL 10 GHz and Up Contest](#)

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[www.youtube.com/@nvarc](http://www.youtube.com/@nvarc)

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**Treasurer:** Ralph Swick, KD1SM

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Robert J. McArthur, K1QT, 2023-2026

James Hein, N8VIM 2021-2024

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N1NC Trustee: Bruce Blain, K1BG

Join NVARC! Annual  
 membership dues are \$15;  
 \$20 for a family.

NVARC general meetings are scheduled for the third  
 Thursday of the month at 7:30pm, Eastern Time.  
 NVARC thanks Medtronic, Inc for providing the  
 teleconferencing services under their employee  
 volunteer support program for non-profit  
 organizations.

Contact us on the N1MNX repeater.

442.900(+), 100Hz

147.345(+), 100Hz

53.890(-), 100Hz

This newsletter is published monthly. Submissions,  
 corrections and inquiries should be directed to the  
 newsletter editor: [editor@n1nc.org](mailto:editor@n1nc.org)

Articles and graphics in most PC-compatible formats  
 are OK.

Editor: Vladimir A. Goncharov, W1MTI

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See: <http://www.n1nc.org/MembersRoste>  
 for your renewal month.

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