



PROSPECT HILL INTERMOD

THE OFFICIAL NEWSLETTER OF THE WALTHAM AMATEUR RADIO ASSOCIATION

WWW.WALTHAMARA.ORG

SPRING 2023

2023 FIELD DAY IS ALMOST HERE!

Christine Shustak, N1AUP – 2023 Field Day Planning Co-Chair

As most of you know, June, in the ham radio world, means [Field Day](#) (June 24th and 25th this year).

In past years we have planned our celebration on top of Prospect Hill in Waltham but due to city regulations and bureaucracy, we were not allowed to stay overnight. Further dissuading us from this site this year, the city demanded hefty reservation fees, so the club decided to look elsewhere.

Many club members expressed an interest in doing an overnight Field Day effort this year. Crow Island had already been booked by another club which meant we would have had to co-exist. As it's hard enough to deal with interference from our own radios, we didn't relish having to deal with the same from a second club since there wasn't any discussion of a combined effort.

After exploring quite a number of sites, we accepted a generous invitation to join the Montachusett Club's Field Day operation atop Mount Wachusett. Their Field Day efforts had lost a bit of momentum over the past few years and they were looking for new people to jump start enthusiasm.

After talking with Montachusett, we agreed on three standard HF stations, a VHF/UHF station, and a "Get On The Air" (a.k.a. GOTA) station. Food will be provided and there will be a nominal charge (around \$20 dollars or so) if you want to eat for the weekend. Our club will be splitting the charges for the site fee (very reasonable!) and other incidentals. Montachusett has used this site for years so they have an excellent relationship with the park officials. They have a key to the gate and have permission to stay overnight. Not sure if we will have to pay a park entry fee, but the road use fee is \$5 – again, more than reasonable!

This April's meeting went over Field Day preparations and Eliot gave a presentation on contesting skills that lead to success. Field Day 2023 is looking to be a great event for WARA and we look forward to seeing you there!

Anticipation – From the Perspective of a Field Day Newbie

Eric Balles, W1ENB – President

I've been licensed for 30 years... but never participated in a Field Day. Kind of embarrassing, especially now that I've taken on the role as WARA's current president. I'm really looking forward to this year's event!

Field Day encompasses so many of the aspects of the way that I most enjoy ham radio, all wrapped up in one event. Operating outdoors, for example, at least when the weather is cooperating; operating portable at remote locations – I frequently bike, or hike, or a combination of both, to operating locations, some close to home, others not so close, and some with absolutely spectacular views; low power – I can't remember keying up anything over 100 watts, not that there's anything wrong with high power, but there's just a lot less to carry at low power; and, operating at low power brings me to antennas – portable ones that are simple, yet still very efficient radiators, easy to carry, easy to erect, and easy to take down.

There are aspects of Field Day that will be completely new to me and I'm looking forward to learning. The two biggies are contesting and computer logging. While I can be as competitive as the next person, I just haven't latched on to contesting on the bands yet. And... don't judge me, I still log on paper. I'm looking forward to applying what I have learned at Eliot's (W1MJ) 'Contesting 101' presentation.

And finally, there's the social aspect of the whole event. Camaraderie at the field day site all the way through to every contact we make that day. Hope to see you at the top of Mt. Wachusett. And bring other newbies if possible (either new to Field Day or new to ham radio). I'm already working at getting one or more of my kids to join in the fun.

73,
W1ENB

Maintenance at the Repeater Site



Roger, WAINVC

On May 6, members of the WARA Technical Committee cleaned up and re-packaged the 146.64 and 224.94 MHz repeaters and the Internet and APRS equipment. Roger, WA1NVC, is shown here hooking up cables in the new cabinet. More photos to come in the next issue of PHI!

A Mighty Woof Antenna Born From The Scrapheap

Patrick Whitney, K1PJW – Editor



My Finished Mighty Woof

As we all know the antennas we choose are a compromise, but that doesn't mean you can't have a performant setup.

Living in the city, and having a finished attic, meant I did not have a lot of room for an indoor antenna for my VHF/UHF setup (I'm still negotiating with the XYL HOA on the terms of a roof mounted antenna... discussions are going well, albeit slowly).

I previously had a resounding success with a homebrew 1/4 wave ground plane antenna I made from 12 AWG solid copper wire, but I thought I could do better. I went searching the internet for designs of a UHF/VHF fan dipole and came across the Mighty Woof. It's just over 3 feet long and has given my setup better ears and more transmit range than before, although this is anecdotal as I have no data beyond I couldn't hear or hit certain repeaters before...

The Mighty Woof reminds me of two mini copper pipe j-poles connected at their ends. The Mighty Woof was designed by WB0TGE and the plans are here:

https://wb0tge.com/?page_id=33.

Being a little bit of a frugal New Englander (ok, fine... I'm cheap!) I decided to use some reclaimed copper water pipe to make this antenna. Although I was fairly certain the existing corrosion and mineral build up wouldn't affect the operation of the antenna, I decided to clean the pipe up a little anyway.



My Starting Materials

I cut all my pieces and unsoldered the connectors I needed and placed them in a container I made from some scrap PVC and soaked the pieces in vinegar for a couple of days... a day probably would have been sufficient but life got in the way of my antenna building!

I was quite happy with the cleaning results and was able to solder the whole thing up in about an hour total (although this was stretched out over a couple of weeks... one or two solder joints at a time).



Cut to Size, Before (left) and After (right) The Vinegar Bath

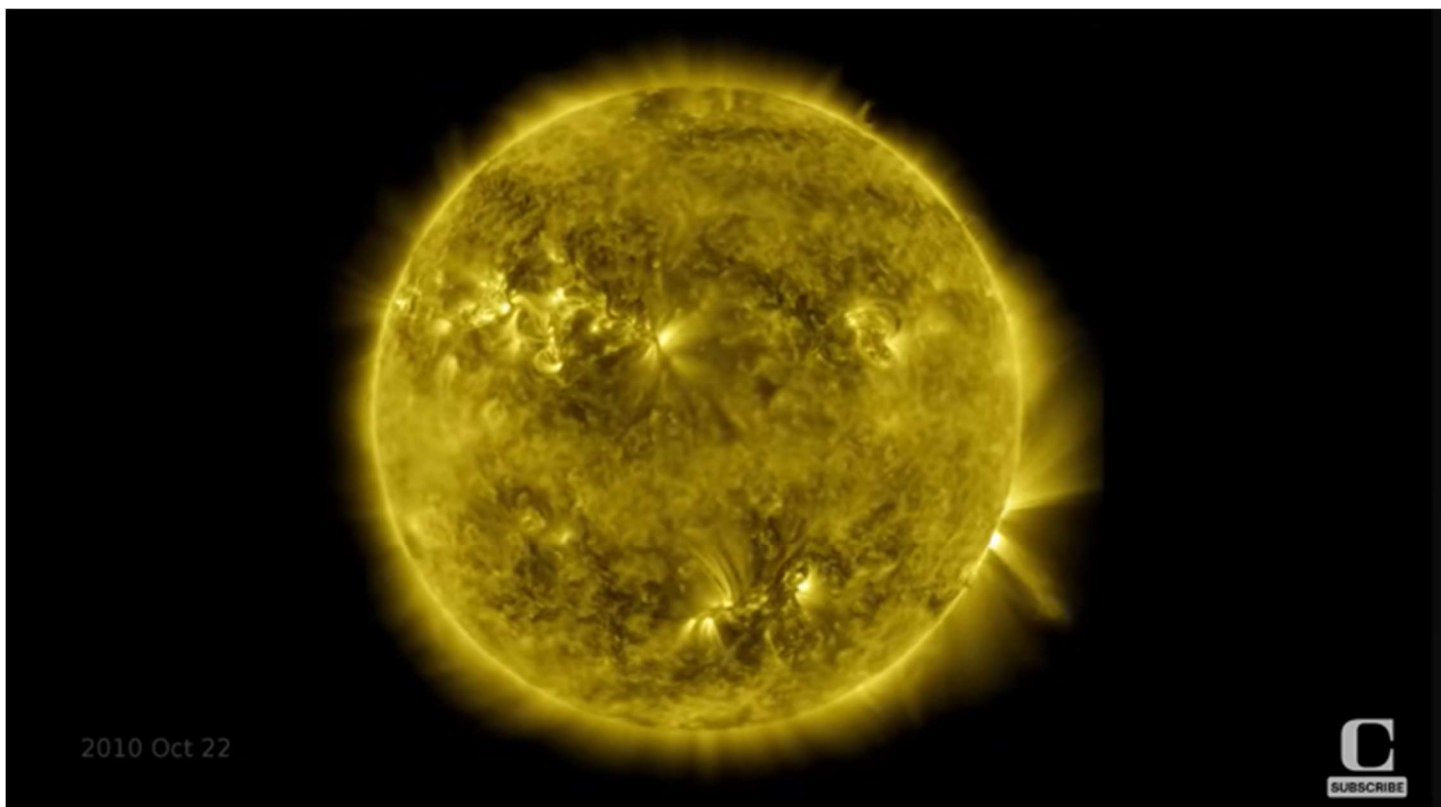
I couldn't be happier with the end result. All I ended up needing to finish the project was one CPVC tee, two copper tees, and 4 copper caps (probably could have done without the caps indoors but wanted to have the flexibility to move this outdoors in the future). All and all maybe 10 bucks!

Someday I'll set myself up with something for better antenna analysis (I've got my eyes on a NanoVNA!), but for now I used my Bird wattmeter to check my VSWR and it is fairly flat across both bands in my installed location, ranging from 1:1.2 to 1:1.4 across VHF and 1:1.1 to 1.2 across UHF. Given additional time I'm guessing I could have tuned it up even better but these results satisfied my needs!

So, reclaim some copper and get to antenna building!

What the SUN looks like over 10 years (NASA time lapse)

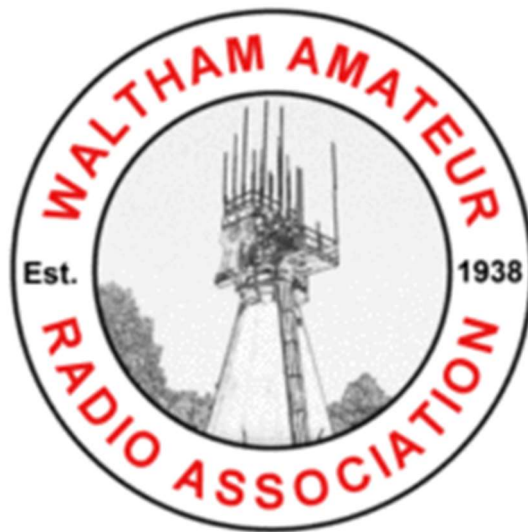
I found this great timelapse of sunspot activity over 10 years and thought you might enjoy it too – K1PJW



<https://www.youtube.com/watch?v=9ITtrcSe-Hc>

Waltham A.R.A Repeaters

Input	Output	Tone In	Tone Out	Notes
146.040	146.640	136.5	136.5	NAC 293 for P25 use EchoLink W1MHL-R Node: 490278
223.34	224.94	103.5	103.5	
444.075	449.075	88.5	None	
902.1375	927.1375	131.8	100	Linked to NEAR 900 Network via IRLP



Club Officers

President – Eric Balles (W1ENB)

Vice President – OPEN

Secretary – OPEN

Treasurer – Rich Comer (K1RBC)

Assistant Treasurer – Eliot Mayer (W1MJ)