



THE HARC SPARK



Editor: K3UJ

The Official Newsletter of the
Holmesburg Amateur Radio Club
501(C)(3) Charitable Organization
WM3PEN 146.685 MHz Repeater
K3RJC 444.9 MHz Repeater
K3FI – Club Calls – WM3PEN
Web Site <http://www.harcnet.org>
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March, 2024

Prez Sez!

It's been an interesting couple of months for the club.

We have two beautiful new banners, which you can see if you come out to our tables at the NE Philadelphia History Fair on April 13 (volunteers always welcome, incidentally). Andrew W3AWC will use experience gained from his POTA outings in setting up a station outdoors at the fair, if the weather cooperates.

We have several newer members, which I hope is a harbinger of things to come. We congratulate Austin KA3TTT in passing his Extra exam, and acknowledge his contribution, through his weekly net, to attracting new members for the club and/or the Facebook and IO groups.

Our April 17 meeting will find WA3PZO showing off WM3PEN's collection of QSL cards organized by him and K3UJ, and our collection of QSLs and certificates from the 13 Colonies operating event, during which we represent Philadelphia every July. I can attest that the club call is now recognized all over the world.

Not bad at all for a small club...something to be proud of.... but we hope older members can get more active in club endeavors, and that newer members continue their participation with enthusiasm. How about nominating an appropriate person for the Board of Directors (by April for the May election), or running for office yourself!

Saul W3WHK

Website

You might have noticed we are having some problems with the HARC web page. It was being hosted on a site provided by Jim – AJ3DI (SK). We are now working on getting it transferred to a new provider.

Stay with us, it will be back up shortly.

In Passing

Bob Heil, K9EID, founder of Heil Audio, inductee to the *Rock and Roll Hall of Fame*, and well-known to hams all over the world, passed February 28th at age 83.

An Amateur's Amateur Antenna

Andrew Chen W3AWC
callsign.w3awc@gmail.com

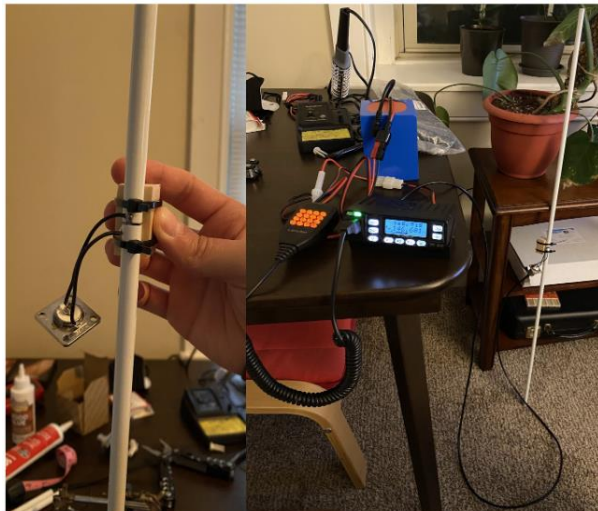
Necessity is truly the mother of invention and a bit of forgetfulness bore my necessity. After leaving my HT at my parents house while visiting for Christmas, I was without a way to get on 2 meters. Antenna building was not something I had planned on getting into any time soon, however I had recently happened to come into possession of a soldering iron, a mixed bag of electrical components and connectors, and a Leixin VV-898 UHF/VHF radio. Recently, one of my laundry racks had also happened to break leaving me with a pile of steel tubes held together with a few screws. I decided on building a 2 meter dipole and what I'm sure is a straight forward antenna build for many experienced HAMs turned out to be a great learning experience for me. I

hope to share with you how I made this antenna and some of the lessons I learned along the way.

The main materials I used were:

- 2x 66 cm lengths of steel pipe
- 2x ~3 inch pieces of 20 gauge wire
- 1x SO-239 connector
- Solder and soldering iron
- Pipe cutter (to shorten the steel pipe)
- Multimeter (to check for continuity)
- Scrap wood, glue & zip ties to hold it all together

Any formula or calculator will tell you that each leg of the dipole should be about 49 cm for 146 MHz. So I set about cutting my pipes to length, and soldering them to the center pin and base of the SO-239 connector. This was my first attempt at soldering and after a few tries I got everything to hold together. I wanted to test if this antenna would work so I learned it up against a table and put my callsign out on the WM3PEN repeater frequency and to my surprise I heard the roger beep from the repeater come back through my radio! It was around this time I made a post on the HARC groups.io page for anyone to hop on the repeater for a signal report. I had a great quick chat with some HARC members and was very satisfied. You can see the shoddily held together test antenna and how it was set up for my first contact in the picture below. I was a bit concerned however with how inefficient my antenna may be and how prolonged use might affect my radio.



I purchased a cheap little in-line SWR meter, the Surecom SW-33PLUS. To my dismay I was seeing an SWR of 2.5 or greater up and down the band from 144-148 MHz. How could this be? All the online tutorials made it look so simple, just cut two pieces of metal or rigid wire to the appropriate length and presto, you have

a perfectly resonant antenna! I turned to some online forms and other hams to help me solve this issue. I learned three things: 1) Antennas indoors can be finicky, too close to a body, conductive surface or other wires can change SWR drastically. 2) My short (or relatively long) length of feeder wire from the SO-239 to the elements could be changing the resonant frequency of the antenna. 3) I would probably need a proper SWR meter if my antenna was resonant just outside the 2 meter band.

So, as is probably the fate of many HAMs, I had to buy another piece of gear... the very affordable and capable nanoVNA which comes in a few flavors on Amazon. With its plots I could watch in real time how the SWR changed as I leaned the antenna against a wall, put it close to a window or held it out in the middle of the room, the latter of the three seemed to get the minimum SWR the lowest. And to my relief, the minimum was somewhere between 122-138 MHz. All I had to do was trim and test a few times. The final version of the antenna and display from the in-line Surecom while TXing can be seen below.



The final length of the elements ended up being just around 45.5 cm. At 146 MHz, the nanoVNA showed an SWR close to 1.3 and while TXing with the WM3PEN repeater settings, the Surecom showed an almost perfect SWR of 1.01. Despite this slight discrepancy, I think it's safe to say my SWR is probably at an acceptable level for a dipole inside an apartment and more importantly, I can get back on the WM3PEN repeater with the peace of mind that I'm not damaging my radio in the process. Now, what to build with the nine segments of steel tube left...

Thanks for reading about my first antenna building journey! I'd appreciate hearing any thoughts, comments or questions you may have. Feel free to reach out via email.

POTA Report: A POTA Meetup and A New Portable Antenna Mount

Andrew Chen (W3AWC),
callsign.w3awc@gmail.com

As a frequent POTA activator, I recently put out a call to the HARC group for any interest in an informal POTA meetup. A few people showed interest and, for a first HARC POTA event, I would call it a success! Jim N3DOG and myself meet at Fort Washington State Park on Saturday, March 16th. When I arrived, Jim had already set up his portable station and was making some contacts. We started off working a bit of DX together, getting some contacts from Scotland and Latvia. After an antenna swap, we began calling CQ POTA on 20 meters and worked a respectable number of stations together as multiple operators from the same park. It was my first time ever saying “stand by for second op”. Once we started to call CQ, we made about 9-10 contacts in 15 minutes before Jim had to begin packing up his setup. I would highly encourage other members to try and organize some portable meetups as well! I think it’s a great opportunity to see the strengths of other portable stations and try out some new equipment. Below you can see my POTA setup for the day with Jim in the background.



Something else I was excited to test particularly with my 20-meter ham stick was my new “table mount” for antennas, otherwise known as a long clamp, which you can see pictured below. On the left is an alpha antenna

vertical whip with 8’ ground and 25’ NVIS wire, center is a 20-meter Ham Stick which is using the same ground wire as the alpha antenna, and right is a 2-meter home brew dipole which I tried to use for some simplex contacts. The thing that inspired me to seek such a mounting system is the NE Philadelphia History Fair which the club has been asked to participate and have an out-door demonstration table of amateur radio.



I realized after coming back from the park that a handful of radials will probably produce more consistent and better results compared to a single ground spike. However, as is I made 31 contacts over the course of an hour and 15 minutes and for 35 minutes of that time, I was exclusively hunting other stations.

I realized some other great advantages of the table mount antenna system, no messing with throwing lines high up in trees for wire antennas, something I know discourages some HAMS from doing POTA. Additionally, if the ground is too hard or rocky or the park does not allow any spikes to be driven into the ground, if there is a table or just a place to sit, then there is a place for your antenna!

SFTW Stamps For The Wounded

We are still collecting and sending packages of stamps in support of this very worthwhile program. Save what you can, especially those foreign QSL mailings, cut off the corner of the envelope, leaving at least a ¼” around, and bring them to the meeting or mail to:

Rich Shivers
9029 Eastview Rd.
Philadelphia, PA 19152

On the Air

The Italian Amateur Radio Association Emilia-Romagna Regional Committee APS (ARI CRER APS) invites OM, YLs and SWLs to contact the special callsign worked by ARI CRER APS, its 17 Radio Clubs (IQ4AD, IQ4AX, IQ4BQ, IQ4DJ, IQ4FA, IQ4FC, IQ4FD, IQ4FE, IQ4FH, IQ4FJ, IQ4HI, IQ4LH, IQ4PI, IQ4RA, IQ4RE, IQ4RN, IQ4SC), and the special callsign IY4FGM at Marconi Foundation, on the occasion of the 150th Birth Anniversary of Marconi.

The event will take place from 01 April 2024 00:00 to 30 April 2024 24:00 CET (from 31 March 2024 22:00 to 30 April 2024 22:00 UTC).

The official website for the event: <https://www.150marconi.org/>

Real time log at: <https://www.150marconi.org/log/>

Each qsl card will be a piece of a larger puzzle. Work all 9 Italian stations and your puzzle is complete. A picture of the qsl cards and the bigger puzzle can be seen on qrz.

[Complete details on qrz](#)

Stay Connected!

The HARC Club net meets every Thursday night at 8 PM on the Club repeater. Check in and see what's going on. Net control, Austin – KA3TTT.

HARC Membership Dues

If you have not renewed yet, please do so.

Club membership begins on May 1st.
Full member (licensed ham) @ \$20
Family member (licensed ham, after first member pays full dues) @ \$5 (Name, Call)
Associate member (unlicensed person) @ \$5

Cash or check can be paid at the April meeting

Make checks payable to H.A.R.C and mail to:
3341 Sheffield Ave,
Philadelphia, PA 19136

Please add a note with your:

Name
Call
Address
Phone Number
E-Mail address
Note if you are an ARRL member

As alternative use PayPal:

Wm3pen@arrl.net
and put the information in the note box.

When sending in dues via Paypal using the web interface the procedures changed for submitting dues as a friend.

On \$20 there is a \$1.07 service fee. If you use the Donate button there is a 2.89% of the transaction plus a \$.49 fixed fee. Currently out of the \$20 that you submit the Club gets \$18.93.

By using the attached guidelines there will be no service fees.

Meetings

Club meetings are held the third Wednesday of the month 7:30 PM at the Philadelphia Protestant Home, 6401 Martins Mill Road , Philadelphia, PA 19111. We meet in the Learning Center, second floor of main building.

April 17 - WA3PZO will show collection of WM3PEN QSL cards & 13 Colonies QSLs and certificates, and will discuss the 13 Colonies special event

May 15 – Election of officers

June 19 – 13 Colony Special Event planning and operating guidance .

Membership

We would like to welcome recent new members of HARC:

Andrew Chen – W3AWC
Gil Weiss – K3GIL
Mario Tagliaferri – W3CGS
Ed Wald – WA3LD

PHILA ARES INFORMATION

I was advised the time has changed to 8:00 PM

All amateurs interested in participating in ARES should check into the Phila ARES Net, Sunday's at 8:00 PM, local time, hosted on the Phil-Mont Repeater System; 147.030 MHz (+offset 91.5 PL)
;444.80 MHz (+offset 186.2 PL) When control operators are available, Echolink node 29742, WU3I-L, is on the repeater.
Backup link is KB3IV-L.

All amateurs are welcomed and encouraged to check in for more information. There is always a different topic of interest to the amateur community discussed with an informal round table of comments and suggestions.

HARC member, Cliff – KC3PGT, is the Philadelphia Emergency Coordinator, Section 1, EPA Region.

We look forward to hearing everyone on Sunday nights @ 9:00 pm. See web site for more information.
- Visit the Philadelphia ARES web site
<http://www.phlares.org/>

HF AWARDS MANAGER

Are you getting close to having all 50 states confirmed for the Worked All States award or working enough grid squares for to qualify for the VUCC Award? As a HARC service you can now have your QSL cards verified by Bob, WA3PZO, and not have to ship the cards to ARRL Headquarters. You must be an ARRL member to qualify for the awards.

Additional information and links can be found on the HARC website
(www.harcnet.org)

Associations

SKCC – Straight Key Century Club #24642 under both WM3PEN and K3FI.
Ten-Ten International #71057
PODXS 070 Club #1493 (PSK activity)
ARRL Special Services Club

Helping Hams

Would you like to assist your fellow club members? Do you have an expertise in any particular area and would like to make that available to other hams? If so, let me know and I will add you to our list here.
eMail Rich – K3UJ ab3eo@comcast.net

Kit building. - I will offer assistance, finish something started or do a complete build for you.
Rich – K3UJ ab3eo@comcast.net

Antenna installation
Carl – N3ZZK Carl9521@aol.com
Dave – KB3AKK kb3akk@hotmail.com

CW & Contest operation
Saul – W3WHK saubro@aol.com

Your Contributions

Please tell us what you are doing. Have you received any awards, upgraded your license, done any activations, (SOTA, IOTA, etc.), built something special. Or if you would like to write an article. We would be happy to receive all material. Email Rich AB3EO@comcast.net

HARC Board of Directors

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Vice President - Rich Shivers, K3UJ
Treasurer - Bob Josuweit, WA3PZO
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WM3PEN @ AOL.COM