



PCARA Update



Volume 24, Issue 11 Peekskill/Cortlandt Amateur Radio Association Inc. November 2023

Vote for POTA

We rolled into October with a pop-up **POTA Activation** at the Donald J. Trump State Park – Indian Hill Section, on October 1st. There were eight members who joined in, and over a period of approximately two hours they had a successful activation with 75 contacts. The station was run under Verle W2VJ's call sign, and a full report follows in this month's edition of the *Update*. Congratulations — well done!

PCARA held two **VE Test Sessions** in October 2023. One was held on Saturday October 7 at the Putnam Valley Free Library, with the other on Monday October 23 at the Putnam | Northern Westchester BOCES Tech Center in Yorktown Heights, NY. The same candidate attended both sessions, achieving Technician at the former and General at the latter. **Congratulations Robert KE2CAJ!**

PCARA helped provide communications support for the **43rd Annual Harry Chapin Run / Walk Against Hunger** on Sunday October 15, 2023 at the Croton-Harmon High School in Croton-on-Hudson, NY. There were seven members from PCARA and six from the Westchester Emergency Communications Association (WECA), and we were able to provide coverage for all stations this year. Fortunately, there were no emergencies requiring communications support. Thanks to our friends from WECA for their help and use of the RACES vehicle. Next year will be our **10th** year for helping a



Lou KD2ITZ and Vincent KD2VAV watch Verle W2VJ operating from POTA K-2048 on October 1.

most noble cause. There is a full report on the event in this month's edition.

PCARA participated in the **New York QSO Party** on Saturday October 21, 2023. Members operated from their own stations as we didn't have a central location this year. Major players for PCARA this year were Joe WA2MCR, using the club call, and David K2WPM. A report follows in the newsletter. Thanks to all who participated.

We held a **PCARA Breakfast** on Saturday October 28, 2023 at 9:00 a.m. in the Pavilion in Downing Park in Yorktown Heights, NY. *Continued on page 2* ⇨



Run Against Hunger 10K contestants cross the Croton Dam near Water Stop 2, operated by Vincent KD2VAV and Lou KD2ITZ. [Photo credit KD2ITZ.]

Contents

Vote for POTA - KB2CQE	1
VE Tests October	2
Adventures in DXing - N2KZ	3
Run Against Hunger 2023 - NM9J	7
Holiday Dinner.....	10
Ed Rosenthal K2OHK obituary - N2KZ	11
K2WD move	11
NY QSO Party 2023 - NM9J	12
Member profile — Charles N2SO - KD2WSU	13
POTA activation	15
MorGain antenna - NM9J.....	16
Superior simplex - N2KZ	19
Fall foxhunt 2023 - NM9J	20
West Point key.....	21

The breakfast was well attended with gorgeous weather! Breakfast was followed by a **PCARA Foxhunt** in FDR Park at 10:45 a.m. The Fox, played by Mike N2EAB was found by Vincent KD2VAV and Ratan.

Please mark your calendars with these upcoming events:

- Saturday November 4, 2023 at 4:30 p.m.: **PCARA Membership Meeting** at the Putnam Valley Free Library in Putnam Valley, NY. Election of $\frac{3}{5}$ of Board.
- Monday November 13, 2023 at 7:30 p.m.: **PCARA ARRL VE Test Session** at the Putnam|Northern Westchester BOCES Tech Center in Yorktown Heights, NY. To register please contact: Mike W2IG at w2igg'at'yahoo.com.
- Saturday November 18, 2023 at 9:00 a.m.: **PCARA Breakfast** at Uncle Giuseppe's Marketplace in Yorktown Heights, NY.
- Sunday December 3, 2023 at 5:00 p.m.: **PCARA Holiday Dinner** at the Cortlandt Colonial Restaurant in Cortlandt Manor, NY. Please inform Malcolm (nm9j'at'arrl.net) with headcount if you and yours are planning to attend.
- Monday December 11, 2023 at 7:00 p.m.: **PCARA ARRL VE Test Session** at the Putnam|Northern Westchester BOCES Tech Center in Yorktown Heights, NY.

Our next scheduled **PCARA Membership Meeting** will be on Saturday November 4, 2023 at **4:30 p.m.** at the Putnam Valley Free Library in Putnam Valley, NY. The unusual time is due to the community room being already booked for the morning of November 4th. The meeting will include **election** of three Board members (Lou, Mike and Greg). I look forward to seeing you there!

- 73 de Greg, KB2CQE

PCARA Board

President:

Greg Appleyard, KB2CQE; kb2cqe 'at' arrl.net

Vice President:

Bob Tarsio, N2CBH; bob 'at' broadcast-devices.com

Secretary:

Lou Cassetta, KD2ITZ; radiocassetta 'at' gmail.com

Treasurer:

David Fredsall KD2EVI; joanndavidss88 'at' verizon.net

Director:

Mike Dvorozniak, W2IG

Vice President Emeritus: Joe Calabrese, WA2MCR.

Net night

Peekskill/Cortlandt Amateur Radio Association holds a roundtable net on Tuesday evenings at 8:00 p.m. and a directed 'Old Goats' net on Thursday evenings at 8:00 p.m. Both events take place on the 146.67 MHz W2NYW repeater, offset -0.600, PL 156.7 Hz.

Join the roundtable to find out what members have been doing or join the Old Goats with net control Karl N2KZ for news and neighborly information.

VE Tests October

PCARA's first VE Test Session of October 2023 took place on Saturday October 7th at Putnam Valley Library, immediately following the monthly membership meeting. There was one candidate, Robert Kerbstat of Paterson NY who passed Element 2, qualifying for Technician. The FCC assigned new call sign KE2CAJ to Robert on October 14.

This test session took place under the auspices of ARRL VEC. Examiners included V.E. Team Liaison Mike W2IG plus Lou KD2ITZ, Verle W2VJ and NM9J.

PCARA's second VE Test Session of the month was scheduled for Monday October 23 at Putnam|Northern Westchester BOCES in Yorktown. The new venue was adjacent to the recently transferred Microcomputer Tech area at the north end of the building.



PCARA's October 23rd VE Test Session was held in a new room at PNW BOCES.

Sole candidate was once again Robert KE2CAJ who successfully passed Element 3 and upgraded from Technician to General. This session was also under the banner of ARRL-VEC, with examiners Mike W2IG, Lou KD2ITZ, Ken W1YJ and NM9J.

PCARA's next VE Test Session will take place on Monday November 13, 7:00 p.m., at PNW BOCES. Candidates must contact Mike W2IG using w2igg'at'yahoo.com.

Adventures in DXing

- N2KZ

Staying Alive

Time marches on! We all must adapt to change. Amateur radio clubs are no different! Legacy members age over the decades. New members arrive with the same questions you posed to your Elmers when you were a beginner. Somebody needs to help all of them! Many needs must be met. It is not unusual for clubs to be challenged when looking for those to accept and carry the baton into the future. Never be tempted to forever extinguish your club's flame! What can you do to keep your club afloat and vital?



Legacy members age over decades.

Hopefully, this article can inspire you. I have recently been working with a club that longs for revitalization and redirection. Many facets need to be healed and our fraternity longs to be strengthened and reunited. I share these experiences with you for mutual benefit. Please share your ideas in return.

One thing you should never forget: You can always find yourself a friend or two or three and suddenly you have a club. Having a President, Secretary, Treasurer, a full Board of Directors and a support crew are truly optional. Don't let your club, with decades of dynasty, fail due to technicalities or a lack of energy. Consider and prioritize your goals. Simplify what seems complex. Customize your club to meet your needs — large or small! Just gather at a local pub, diner or park and discuss the future. You can jump all of your hurdles. May your club forever succeed!

In due time, build and organize a club structure that meets your needs without exceeding your capabilities and stress level. Most clubs need a savvy leader and someone adept at finance. Collection and attribution of club dues (if any) is essential along with paying other bills such as equipment and liability insurance. Hint: If you can't meet these needs within your current



membership, you may want to actively recruit a potential president or treasurer from your neighborhood community. Financial experts and bankers might make great ham radio operators, right? Being clever and inventive recruiting new members can save the day! Never be shy to ask "Can you help me?" Maybe they can!

What is really important?

First, identify appropriate places for gathering

your group on a recurrent basis. Libraries, community houses, large restaurants, firehouses and outdoor venues might be perfect for your meetings. If you meet over the Internet, all you might need is a computer!

Poll your group of friends and discover what day and time would attract the most members. Don't be afraid to have more than one meeting date and time. Events can occur on a recurrent schedule or can be special one-time-only affairs. How about weekday evening meets on Zoom or Echolink combined with weekend in-person breakfasts, demonstrations or operating exercises?

In time, develop a standard calendar of events. Begin your list with monthly or even weekly meetings. Don't forget the obvious: Amateur radio clubs can always meet on the air! Start a daily or weekly net to keep further in touch. Constantly exchange your ideas. A serious note: A daily check-in net can become a subtle way to make sure everyone is OK. Watch as your club comes alive!

Reaching your goal of fun and fraternity has now been greatly simplified by modern technology. It is easier than ever to still be a part of the fun. Have you just downsized into a small apartment with no room for antennas or space? Are you a new ham without any equipment whatsoever? Pick up your smartphone and load the

Echolink app. It becomes a nifty, all-purpose ham rig that everyone already owns. Very simple to operate. Press a button or two and — *voilà!* — you are back in business.

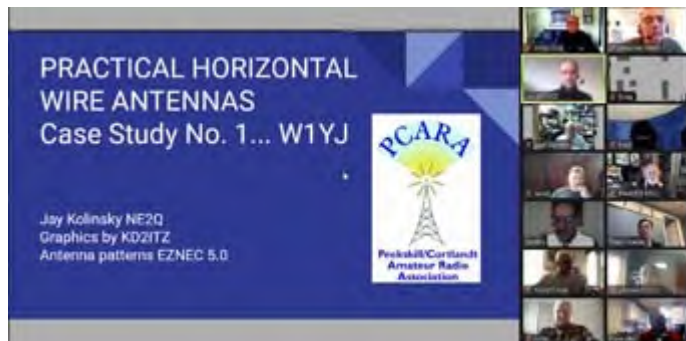


Don't knock it until you try it! I host a 2 meter net in metropolitan New York City that is just filled with Echolink participants. Hello Connecticut, South Carolina, Michigan, Florida, Scotland and even South Korea. Your reach can now be worldwide with simply perfect copy. What a great tool to bring all the retired members who have moved away, back into the fold. Brilliant!

Echolink provides something for everyone and it's simple to install and operate. Just search 'Echolink' in your Apple or Android app store. Download the app, complete a simple registration and suddenly you can instantly connect with stations and repeaters all over the world. We have 'regular' participants joining in over old reliable 2-meter FM, too. No matter where you are, no matter how you get here, we have a spot with your name on it. Join us!

It gets better: If you would like to add an extra interactive and personal touch to your meetings, add

video to your get-togethers using the Zoom application. See several people all at once and even share screen for multimedia presentations. When you can put a face to a familiar voice and name you gain terrific fraternity. It's almost like being there in-person. Take Zoom with you: You can join a Zoom meeting from your smart-phone, too!



Zoom presentation by Jay NE2Q in December 2020 was attended by over 30 radio amateurs.

Zoom and Echolink are very powerful tools that can really glue your group back together. When winter nights grow darker and darker, and snow and ice enter the picture, driving to a meeting may even be life-threatening. Similarly, gathering groups that are scattered over hundreds of square miles isn't easy or convenient. Want to bring everyone together immediately? With Echolink and Zoom the meeting is delivered right to the phone in your palm or to your flat screen. Amazing!

Zoom changed my life. In the year 2020, COVID-19 kept humanity sitting at home and brought us a new reality. While on furlough, I had time to think and expand my horizons. My family has deep ancestral roots in Scotland. I investigated several across-the-pond amateur radio clubs and discovered the Wigtownshire Amateur Radio Club. How convenient... It was based in Stranraer, where my



Wigtownshire Amateur Radio Club members meet in-person with Karl N2KZ (fourth from left). [N2KZ pic.]

ancestor's homestead has survived for centuries. I joined in and became a member from over 3,000 miles away. What a fascinating and diverse group of people. Now I am an active member in a ham radio club in Scotland and I can attend weekly meetings just by turning on my computer. Zoom meetings brought us all together. Today, I am on their Board of Directors as Club Secretary! The possibilities are endless.

There's more — another great way to introduce folks to the world of shortwave HF operations! Try connecting to a Software Defined Radio over the Internet. You can listen to SDR radios installed all over the world with a full set of functions and a beautiful waterfall display to boot! What's on the radio in France (or anywhere else)? It's easy to find out for yourself! Go to: <http://kiwisdr.com/public/> and try a Kiwi SDR. They are free to use. This can be an excellent way to provide HF access to new and old — again just using a smartphone or PC. Another idea to bring smiles: Old-timers might really enjoy a loan of a simple old, (and easy to use,) general coverage shortwave receiver.

Don't Say 'Nay!'

One cardinal rule about recharging a club: Never, ever listen to those who say 'nay' and bring negative energy to your passions. Remember this common attack comment: "Echolink? Zoom? That isn't real ham radio!" Your retort: "Well then, explain FT-8. Is automated digital DX any different?" Make this *your* motto: "Yes We Can!"

You might also hear the old standard harangue "What have you done for me lately? I pay my dues!" Please politely remind them of this adage: "You get what you give!" Amateur radio clubs are not commercial entities producing products and services *en masse* for their subscribing public. Healthy clubs are cooperative and collaborative and self-supporting. Your success is due to the hard work and energy of all-volunteer members. Together we are stronger. Isn't that the point?



Healthy clubs are cooperative and collaborative.

Remember to always carefully consider the needs of others outside of your own personal perspective. Beginners may long for the most basic information: "What are the items needed for a simple 2 meter station? How do things connect? How do you operate it?"

Senior members have different concerns: "My new place of living does not allow antennas and rigs. Modern transceivers are too complicated with too many buttons."

One wrong touch and my rig is useless. I am lonely and miss ham radio so much. How can I operate again?" Always ask: "Does anyone need help?"

Also help everyone in-between! Some issues can stymie anyone. "I have never used Echolink. Can you help me set up my phone? I can't get my antenna to tune up. I don't understand my new rig." Nothing solidifies the value of a club

when the members provide an experienced and diverse network of mutual technical support. What if I can't climb on my roof anymore or I need to hoist an antenna into the trees? Meeting someone in person and helping them one-on-one can be so rewarding for every one! Another fine welcome: Some radio clubs offer loaner equipment as an incentive to newcomers. A ham radio club can offer many friends with diverse skills at any moment. An hour of personal attention can be so important and memorable to the recipient. Priceless!

One experience was really an eye-opener. A reclusive active club member in Scotland was one of only a small handful of people who used a small area repeater. We planned to remove the repeater for service due to a technical problem with no restoration date in sight. Little did we know that this facility was a vital lifeline to this small group of friends. After discovery of this critical concern, a compromise was found to keep the repeater active without a significant outage. For more than one person we saved the day! Always be sensitive and carefully consider what your actions could affect others.

Put On a Show

Continual interesting and exciting events could be the most important ingredient for amateur radio club success. Well-produced activities are essential. This is a never ending challenge! Regular enjoyable get-togethers keep members involved and motivated. You never want to hear that awful message of peril: "These meetings are so boring!"

This is not an easy challenge. Anyone who has pre-



Joe WA2MCR shows how to cast a line into a tree using a fishing pole.



pared just one event knows how much time, work and planning is required. First consider what your club longs to learn and discover. Is there a new technology that everyone wants to experience? Maybe a project can open new doors? Could you demonstrate troubleshooting skills and how to properly solder? You are only limited to your imagination!

Find inspiration in the success of others. At the Northeastern University Wireless Club in Boston, President Marty Sullaway, NN1C and his gifted club cohorts are having endless fun. A recent 'learn to solder' workshop on-campus brought nearly 50 folks to join in! Ham licensing exams are given frequently. Their Thursday club meeting brought club members together to operate during the on-air School Club Roundup. More club members will be volunteering for the upcoming Boston Athletic Associations half-marathon.

It's great to be part of a collegiate engineering department's beehive! NUWC's recent calendar offers fascinating events: Yagi building workshop, schematic capture, LTSpice simulation, PCB design, embedded development, RF meshing, Python development and circuit board debugging. Club officers include a Code Guru, a Lab Manager and Workshop Warriors. Great fun! I am truly envious. Marty, can I come back to college? For more inspiration visit: <https://nuwireless.org>.



Members of Northeastern University Wireless Club show off their tape-measure Yagis. [Pic credit: NN1C, NUWC.]

Collaboration and cooperation is an essential ingredient. One could make a full time career becoming a club event planner. To keep the party going it is best to gather a *group* of members to concentrate on this task. Never hesitate to ask for help! This challenge might seem leviathan-like at times but the effort is worth it. To attract new members and to retain current members you absolutely need to keep the show on the road!

Event ideas can come from many sources. Search and comb other club's newsletters and web pages for inspiration. Nationwide journals like the ARRL's *QST*, *CQ Magazine*, The British RSGB's *RadCom* and RAC's *The Canadian Amateur* are excellent places to start. Ask your



membership what they would like to see and experience. So, let's get started.

Smart As a Fox

Great home runs can be scored when one presentation leads to another and another. Your membership will long for the next episode. A prime example: Introduce your club to a favorite pastime: A radio-direction finding fox hunt. Begin with a 'ham radio university' in-person lesson describing and demonstrating how to discover hidden transmitters.



Foxhunt University at Walter Panas High School conducted by N2KZ. [Pic: N2CKD]

measure — ready to hunt. Step three: Use what you have learned and the antenna you created and find your first fox in a small park or meadow! Step four: Expand your next hunt to a larger area or even include a team effort all over town or in a dense forest. Extend their knowledge: Teach geolocation, team hunts using a master coordinator, demonstrating complex phasing arrays and other high-tech shortcuts. It could go on and on forever.

Social events are always a big hit. Here are guaranteed winners enjoyed by PCARA members in New York: Try having club breakfasts, licensing classes and test sessions, capturing slow scan television pictures from the International Space Station, and even sending Morse code from the estate of Mr. Morse himself! Operate portable battery or generator-driven stations from lighthouses, parks, mountain summits or during our annual Field Day efforts.

Introduce your members to an amateur band like six meters or a WARC allocation and follow it up with a practical demonstration. Gather at a club meeting to learn all about weather-proofing, building 'go kits' for quick portable communications, seeing brand new rigs and technologies and even learning Morse code. Tie it all together by creating a club newsletter that shares everything with everybody. A good place to gather more ideas: Go to the North Fulton (Georgia) Amateur Radio League's 100 Things list: <http://www.nfarl.org/100Things.html>.

Step two: Arrange a construction session where members can build their very own directional and flexible Yagi antenna — using metal cut from a tape

measure — ready to hunt. Step three: Use what you have learned and the antenna you created and find your first fox in a small park or meadow! Step four: Expand your next hunt to a larger area or even include a team effort all over town or in a dense forest. Extend their knowledge: Teach geolocation, team hunts using a master coordinator, demonstrating complex phasing arrays and other high-tech shortcuts. It could go on and on forever.

Another popular PCARA event is the 'simplex challenge.' Beginners often feel that their new HT or other gear may be ineffective or even useless. They may also be longing to find an Elmer to explain what all those buttons do! Teaming newcomers with old-timers adds a cherry to this tasty cake.

With this event, we first send every radio club and group we can find an announcement of our on-air test. On the day of the test, we drive a mobile unit to the top of nearby Bear Mountain and proceed to create a great pile-up of participants all longing to be heard! Our last event scored almost 50 QSOs! Everyone is always amazed how far and wide you can be heard with modest equipment sitting on top of a 1200 foot peak.



Simplex challenge from the summit of Bear Mountain.

Essential and Indispensable

Amateur radio is a large, innovative and active community of hundreds of thousands of people worldwide. We are not just electronics engineers and technicians. Every occupation you can imagine is represented. Almost every country is on-the-air! You will find amateurs in the biggest cities and on tiny isolated islands far off in the Pacific Ocean. Amateurs learn from each other and radio clubs are the mixing pots that bring them all together. There is no hobby quite like it. Why don't you join in?

One other note: In your quest to invigorate your club please don't forget to publicize your events and participation to all of the general public through local newspapers, magazines, radio stations and even church bulletins. *Take a lot of pictures of your members in action and use them whenever you can!* Try to develop an image of being a group of volunteers that can provide support and coordination for many civic situations. Does your church or nearby concert need crowd and parking control? Call your ham club! Show your ability to fund raise and add value to your community. Offer great fraternity, fun and knowledge and enjoy with everyone you know. Adventure is out there! It's waiting for you. Now go to it!

Please remember a repeater is only 'dead' when no one listens or replies. Make someone else's day and reply to a random call when you hear one. You could make a new friend!

Until next month, Happy Thanksgiving and 73 de N2KZ — 'The Old Goat.'



Run Against Hunger 2023

The 43rd Harry Chapin Memorial Run Against Hunger took place as an in-person event on Sunday October 15 2023. This was the ninth time that PCARA has been requested to provide communications support since our initial invitation in 2014.



The first Run Against Hunger commemorated singer-songwriter Harry Chapin who died in a car accident on the Long Island Expressway in July 1981. Harry Chapin had dedicated his life toward the cause of ending world hunger, so citizens in Croton-on-Hudson created an annual race in his name to raise funds to fight hunger and provide food to children and adults in need.

Race Director Mike Grayeb had contacted Greg KB2CQE and WECA's Kathleen KC2VCT in August regarding PCARA and WECA's participation. Mike stated that the Run would once again be working with Croton EMS to provide coverage with EMTs, ambulances and all-terrain vehicles. Greg stated in his column for the October newsletter that he was hoping for a record turnout and promoted participation at the October 7 meeting. After meeting with the Run organizers and WECA to finalize arrangements, he circulated maps and sign-up sheets.

Sunday start

Sunday October 15 dawned with gray skies, a cool 48°F temperature and a chilly NNW wind. This was actually an improvement on Saturday 14th, when it rained all day. The Westchester County RACES Emergency Communications vehicle arrived at Croton-Harmon High School and was set-up by Alan N2YGK in its usual location on the driveway.



Westchester County RACES Emergency Communications vehicle with its pneumatic mast was located on the driveway outside Croton-Harmon High School.

As well as Robert N2TSE and visitors from PCARA, WECA Public Service Director Kathleen KC2VCT was also at the High School, supplying amateur radio information for visitors and acting as liaison with the Run organizers.

Your editor avoided the congested parking at the High School by driving straight to his assigned post at the northern end of the Croton Gorge Trail. Al K2DMV was unable to join me this year as he was traveling.

5K Run/Walk

The first event of the day was the 5K Run/Walk, starting at 8:30 a.m. from Croton-Harmon High School, then proceeding down Old Post Road South, via Truesdale Drive to Cedar Lane. The route turns north on Nordica Drive, onto Truesdale Drive to the start of Croton Gorge Trail at the Silver Lake Parking Lot. The Water Stop at this location was once again manned by Robert N2TSE, who reported that the post was fully staffed. The route continues due north on the Croton Gorge Trail to the Mile 2 marker at Trail's end where I was waiting.

The dirt area of Cleveland Lane adjacent to the trail had been completely resurfaced since the 2022 event. I was joined by two cheer-leaders and two members of Croton EMS with the Montrose Fire Department Polaris all-terrain vehicle. The location lies in a difficult radio spot — EMS personnel were having difficulty with their portable sets but our vehicle radios were able to get through.

The first runners to enter the trail at Silver Lake were reported by N2TSE at 8:40 a.m. They reached Mile 2 a few minutes later. The bulk of runners then passed by, followed by walkers. One high spot was when Jared KD2HXZ passed Mile 2 at 8:59 a.m.



Station #2 at north end of Croton Gorge Trail.



Jared KD2HXZ reaches Station #2 on the 5K Run.

Runners and walkers were accompanied by their partners, by dogs on the leash plus youngsters in strollers. In the gloomy conditions beneath the Croton Gorge trees it was difficult to take good photographs — and to read the black on dark-green bib numbers of runners flying by.

At 9:13 a.m. N2TSE reported the last walker #1793 was passing Post 1. Fifteen minutes later the same walker had reached Mile 2 and the post was secured.

First male and female runners in the 5K event were Joseph Dunn, #1256 at 18m 46s and Rhylee Adviento, #1258 at 22m 35s. PCARA's Jared KD2HXZ, #1255 finished the 5K course in 42m 09s.

10K Run

The main event of Sunday was the 10K run, scheduled to begin from Croton-Harmon High School at 10:00 a.m. The route goes north on Cleveland Drive to Gerstein Street, crossing Route 129 at Wood Road then proceeding along Batten Road into the Town of Cortlandt and across the New Croton Dam. The route then turns south along Quaker Ridge Road, crossing the river at Quaker Bridge Road, then returns to the High School via Route 129, Jacoby Street and Cleveland Drive.



Map of the 10K run. M = mile point, W = water stop.

I drove to my appointed spot at Peter Beet Lane, close to Mile 6 on Cleveland Drive. Along the way I heard Greg KB2CQE heading for Water Stop #1 at Batten Road, followed by Vincent KD2VAV with Lou KD2ITZ at Water Stop #2 on the east end of Croton Dam.

Additional stations who reported in to net control were Russ N2AMP at Mile Point 3 on the end of Croton Dam Road; Ramon KC2ZJO at Water Stop #3 on Quaker Ridge Road (former Danish Home) and Jared KD2HXZ at Mile Point 5 on Quaker Bridge Road accom-

panied by son Josh KD2OHZ. Water Stop #4 on Jacoby Street was manned by Larry W2UL.



Masa JR1AQN.

In the pause before the next event, I took the opportunity to walk down to Croton-Harmon High School where the finish line, public address and vendor booths were located around the front lawn. I ran into Masa JR1AQN who was preparing for the 10K event along with family members who would cheer him on.

Westchester County's RACES truck was nearby, with Alan N2YGK attending to

equipment while simultaneously monitoring for messages to Net Control on the WECA 2 meter repeater.

At 10:00 a.m. the 10K event started with a blast from an air horn and a large group of runners departed from the High School toward Veterans Corners.



Alan N2YGK in-control on 147.06 MHz.



At 10:00 a.m. 195 runners set off from Croton-Harmon High School in the 10K Run Against Hunger.

They were followed by a white Subaru Trail Car with 2 meter radio operated by David KD2EVI plus WECA's APRS transmitter WB2ZII-3. This allowed the Trail Car's progress to be monitored via voice and using web site <https://aprs.fi>.

Reports of first runners passing by were soon coming in from stations all around the 10K course. Male runners # 1215, 1064 and 1212 were reported as well

in front, followed by leading female runner # 1432. Some thirty minutes later reports of the Trail Car passing each post began, meaning that all runners had reached that point and the radio station could secure.

One exception was when the Trail Car reported two runners dropping out near Mile 3. Net Control asked for confirmation that they had made contact for a ride home — this was subsequently confirmed by Russ N2AMP at Mile 3 who reported the two drop-offs had been picked up. He was then able to secure his location.



The Trail Car crosses Croton Dam, following two runners who subsequently decided to drop out. [Photo credit KD2ITZ.]

Mile Point 6 was near the end of the course, so I was able to advise net control as front runners passed by, in readiness for their imminent arrival at the Finish line in front of the school. The Trail Car reached the 10K end point at 11:34 a.m., where David KD2EVI reported the very last runner had crossed the finishing line.

First male runner was Kevin Ascher, bib number 1215 who finished the course in 41m 27s, followed by second male Patrick Bane #1064 in 42m 19s. First female runner to finish was Emma Sorro #1432 in 44m 13s. For PCARA, Masa JR1AQN, #1025 was third in his age class, finishing the 10K course in 1 hr 0m 1s.



Kevin Ascher #1215 and Emma Sorro #1432 passing Mile Point 6.

One Mile Fun Run

The final event of the day was the one mile Fun Run which begins on Cleveland Drive south of Veterans Corners, then follows Cleveland to Gerstein Street and the turn-around at CET (Carrie E Tompkins) Elementary School. I had relocated to the intersection of Gerstein Street and Cleveland Drive where I could keep an eye on the turn toward CET Elementary School.

The first wave of junior Fun Runners was scheduled to depart at 11:45 a.m. I was able to report their arrival at the turn at 11:51 a.m. Alan N2YGK then closed the net and returned the repeater to normal use.



Fun runners reach the junction of Cleveland Drive with Gerstein Street and turn toward CET Elementary School.

Final thoughts

The 43rd Harry Chapin Run Against Hunger went mostly without incident. Cool, overcast weather was ideal for the runners. Communication with net control through WECA's 2 meter repeater was marginal with my HT but thoroughly reliable from a mobile installation. For this event I was using my Icom IC-207H mobile transceiver with a new Bioenno 12V 12Ah LiFePO₄ battery. This meant I could monitor 147.06 MHz continuously without running the engine or draining the vehicle battery. The lithium iron phosphate battery kept the radio powered for 4½ hours and was still providing 13.2V output at the end of the event.

I asked PCARA participants for their thoughts on the 2023 Run Against Hunger. **Hats are raised** to Jared KD2HXZ for running in the 5K race — *then* taking over communications at a Mile Point — and to Masa JR1AQN for running in the 10K race. (Wow!)

Masa JR1AQN offered the following: "I was one of the runners in the 10K race and won third place in my age group. I was very happy to get a medal and cake! Thank you again for your communication support. P.S.: Malcolm, I agree, it is not easy to read black numbers on the green background!"

Jared KD2HXZ wrote: "I run maybe once a week and had not run for a good three weeks. I ran the 5K very slowly, but really enjoyed myself. A far cry from the 32 year old Jared who used to run at 6:40 minutes per mile in 10K's. I enjoyed manning the 5-Mile marker with my son Josh, KD2OHZ."

Lou KD2ITZ supplied the following report.

"On the east end of Croton Dam, numerous members of the Croton High School track team were present to hand out refreshments at Water Stop 2. Lou KD2ITZ and Vincent KD2VAV set up a Kenwood TM-V71A mobile radio running 15 watts to a magmount antenna on a small metal table west of their position. After Vincent received a good signal report from net control he and Lou waited patiently for the start of the race. They were

soon approached by Callum KE2BWA, a student from the water station, who is also a recently licensed radio amateur. He expressed interest in participating in upcoming PCARA events. Readers are encouraged to listen for his callsign on the air and give him a warm welcome to the hobby.”



Communication from Water Stop #2 on the east end of Croton Dam was handled by Vincent KD2VAV and Lou KD2ITZ. [Photo credit KD2ITZ.]

After the event Kathleen KC2VCT sent the following message to WECA and PCARA volunteers.

“Many thanks to you all for the efforts you made to help your community! Special thanks to our vehicle drivers, that have to get up extra early and end their day extra late! I really appreciate your early morning abilities.

“The Harry Chapin Run Against Hunger gave us the opportunity to work together with the PCARA group. Greg and his band of merry communicators did a yeomen’s job out in the field! If I understand correctly, Jared ran in the race and then became a communicator. Wow! The top of the dam was in good order with a beautiful view, thanks to Lou and Vincent. Moving from post to post to keep the participants safe, Russ and Malcolm were vital in today’s mission. Robert, knows that Silver Lake post better than anyone. I always know the post Robert covers will be completely cared for, he knows the drill. Alan gets special kudos for coordinating the EMTs and hams. But the biggest thanks he gets are for safely driving the vehicle with a low tire!

“You all deserve a round of applause for the major efforts this weekend. Thank you.”

Here’s to next time on the third Sunday in October.
- NM9J

Holiday Dinner

PCARA’s 2023 Holiday Dinner has once again been arranged for the same location as in previous years — the Cortlandt Colonial Manor Restaurant. The event begins at 5:00 p.m. on Sunday December 3rd.



Entrance to the Cortlandt Colonial Restaurant.

The restaurant is located at 714 Old Albany Post Road in Cortlandt Manor. Take the Bear Mountain Parkway to the Highland Avenue exit, then proceed north down Highland Avenue and across the bridge. The restaurant and parking lot are immediately on the left.



The dinner menu is as follows:

Soup and Salad
Soda, iced tea and soft drinks (unlimited)
 ***** choice of: *****
Prime Ribs of Beef
Grilled New York Strip Steak
Grilled Pork Chops
Jumbo Shrimp with crabmeat stuffing
Chicken Marsala
Penne ala Vodka - traditional or w/grilled chicken
Custom cake – Chocolate

Cost will be approximately \$50.00 per head including service but not including alcoholic drinks. (Our Treasurer requests cash be brought to the event.) All are welcome — family participation is encouraged. Please let the Editor know if you will be attending by e-mailing your head-count to: nm9j@atarrl.net

Ed Rosenthal K2OHK obituary - N2KZ

Ed Rosenthal, K2OHK, recently passed away and became a silent key. Ed was an active participant in the on-air PCARA Roundtable and Old Goats' Net and was also a regular visitor to the WECA CBS Retiree's Net. Ed was a grand old ham with decades and decades of experience and legacy. He often fascinated us with his very detailed stories about old times, great innovative technologies and everything he had seen in his amazing life.

Ed was a very dedicated ham and especially liked sending Morse (CW) on the air to other code enthusiasts. Ed enjoyed sending code and would light up with enthusiasm when meeting anyone else who shared his passion.

Members of PCARA began to know Ed when he moved to an assisted living facility in Cortlandt Manor in April of 2022. Ed also participated in-person at PCARA's 2022 Field Day event. A group of local hams helped Ed set up antennas at his new home for HF and 2 meter FM operation and big smiles returned to his face.



Ed K2OHK (right) with David KD2EVI during PCARA Field Day 2022.

Here is an entry from QRZ.com all about Ed's career:

"Licensed in 1955 while at radio operator school, US Army Signal School, Ft. Gordon, Georgia. They taught us Morse Code. We did learn to operate every field radio the army had. No electronics theory at all but they had very good books and there was a ham station on post, K4WAR. It was very well equipped and was well known on the ham bands in those days. My first station was DL4FK, Straubing, Germany. At that time DL4 was a prefix for US Army hams in Germany.

"Present interests include operating on 75 meters where I am a member of a net which has been on the air for many years. My off center fed antenna is cut for that net frequency and works very well on 40 meters also. Recently installed a Delta Loop cut for 40 meters. The loop is vertical and close to the ground. It has a very large ground radial system. It is Delta shape. The vertical chord of the delta is a 40ft aluminum mast. It used to be my 5/8 vertical for 20 meters. The other two legs of the delta triangle are wire. The loop is fed with coax in the same manner as the old vertical. The center conductor

goes to the mast and the braid is bonded to the radials. I use the loop on 20 meters, 15 meters, and 17 meters. As of winter 2018 I would say I work whatever I hear, usually on the first call. I run 30 watts on CW and 300 watts on phone.

"Equipment in the shack includes a Yaesu FT-450, an Icom IC-756 Pro II and an Ameritron AL-811 amplifier. Sadly, my beautiful old homebrew amplifiers are gone. They needed some work and I cannot see well enough to do it. I am now an appliance operator.

"The only piece of homebrew equipment left is my very large antenna tuner. The coax cable goes out underground and comes out to a relay which switches between the horizontal and vertical antennas. There is a pulley at the top of the mast which holds up the feed point of the horizontal wire. When using the horizontal antenna the mast serves only as a mechanical support. The entire system has been mechanically stable for a long time and stood up through Hurricane Sandy."

In his last few months, Ed lost his sight and had trouble breathing. As a testament to his dedication to the amateur radio hobby Ed pressed on, continuing to participate on the air, always wanting for more. Conversations with Ed were gifts. You would always leave with both of you smiling and with a head full of knowledge about things you never knew before. To say we will miss Ed would be a great understatement. All of us were glad to share Ed's 94th birthday on the air this past September. Here's to a grand old ham that we will never forget: Ed Rosenthal K2OHK. May he rest in peace and never be separated from his code key!

- Karl N2KZ

K2WD move

Warren K2WD recently moved from Peekskill to New Hampshire. He writes...

"Beverly and I made the move to New Hampshire as we had planned after I retired from full time employment. I am doing some sporadic consulting but I am retired for the most part.

"We attended NEAR-Fest in Deerfield, NH and I purchased two tower sections that I needed to complete my tower project.

"My location is on top of a hill in East Derry, NH. I joined the local club in Nashua, NH: NARS, (Nashua Area Radio Society), which has an immense membership both local and via the web.

"We are very happy with the move and do not have any regrets about it. Please give my best regards to everyone at PCARA!"

- Warren, K2WD

NY QSO Party 2023

Club entries in the New York QSO Party have been hosted in past years by Joe, WA2MCR. Unfortunately, for 2023 Joe was unable to host contestants in his sun room, so members were encouraged to take part from their own stations.

A fallen tree limb had taken down Joe's wire antenna in September and he was operating with a temporary ZS6BKW dipole. This antenna did not provide a satisfactory match on 80 meters, so shortly before the contest, Joe was to be found erecting — then waterproofing — a brand new, G5RV antenna.



Center insulator for Joe's new G5RV antenna.

Joe arranged with call sign trustee Bob N2CBH to use 'W2NYW' for the duration of the NY QSO Party. Joe was operating from his normal location in the basement, transmitting on his Icom IC-7410 transceiver, with N3FJP QSO Party log software.



Joe WA2MCR was operating with club call 'W2NYW' from his basement station in Westchester County (WES).

Unfortunately, Joe's available time was limited because of family commitments, so the 2023 score was down on the multi-operator entry from 2022. Here are the results as calculated by N3FJP's contest log.

Total Contacts = 269					
Total Points = 24,528					
Total Contacts by Band and Mode:					
Band	CW	Phone	Dig	Total	%
---	--	----	---	----	---
80	0	6	0	6	2
40	23	163	0	186	69
20	0	76	0	76	28
10	0	1	0	1	0
---	--	----	---	----	---
Total	23	246	0	269	100

Here are the scores for W2NYW (multi-operator) in previous years.

Year	QSOs	Points	Multiplier	Claimed total
2013	300	345	83	28980
2014	463	548	100	54800
2015	292	359	81	29079
2016	352	441	86	37926
2017	432	612	87	53244
2018	392	564	73	41172
2019	330	400	90	36000
2021	206	266	68	18088
2022	410	473	89	42097

K2WPM portable

David K2WPM reported that he operated portable from Trump Park, French Hill section (WES) and from Fahnestock Park (PUT).

"I had some dupes, so actual score is 66,908. Hoping it's enough to win the 'portable – mixed – low power' category again... The highlight, of course, was speaking to Joe WA2MCR, and also getting a CW contact with W2NYW. I tortured a lot of people with my imitation of CW, too."

"Due to the rain forecast, I decided to stay in the car, running a 132 ft end-fed half-wave from a tripod mounted next to the car. I found nice antenna hangers at each location, right next to the parking areas. At Trump Park, I was able to shoot the antenna over a branch at about 35 ft; at Fahnestock, at least 40 ft AGL.

"I was running pile-ups for almost the entire 8 or 9 hours I was on the air. I had special permission to remain operating at Fahnestock until 10:00 p.m.

"At Fahnestock, as I was setting up in the afternoon, I had over a dozen curious people asking why someone with a slingshot was shooting a wire over a big tree. Gave me a chance to talk about ham radio and what we do... e.g., after Hurricane Maria, Harry Chapin Run, etc."

Here are David's results as analyzed from the K2WPM log...

Total Contacts = 710					
Total Points = 68,972					
Total Contacts by Band and Mode:					
Band	CW	Phone	Dig	Total	%
---	--	----	---	----	---
40	31	419	0	450	63
20	59	287	0	280	39
---	--	----	---	----	---
Total	90	620	0	710	100

One other PCARA call sign was heard during the New York QSO Party — that was from Bob, N2CBH, operating from Pennsylvania. Results for the 2023 Party should be available around March of 2024.

- NM9J

Member profile – Charles N2SO - KD2WSU

Hillside encounter

One of the first things that struck me as I got out of my truck at Charles N2SO's hillside compound was how high the antenna wires were. I don't mean 30 feet high. I mean 60+ feet high. I wondered: "could they have been installed with a cherry picker?" I thought about this as we greeted each other. It was then that I recalled first meeting Charles at the 2022 Field Day. Charles isn't your ordinary antenna ham. This was "tennis ball launcher" Charles. When I commented on the wires he modestly said, "Yes, I've gotten pretty good with that thing." Pretty good is clearly an understatement. Thus began my very pleasant conversation with a very unique PCARA member.



Tall trees at the N2SO location, pictured in 2019.

Né en France

Born in Lyon, France, Charles began his education in a one-room schoolhouse that served students from 1st thru 8th grade. He vividly recalls that his first time seeing the ocean was when he emigrated to the United States at the age of eight. "I was amazed by the angry, green water," he said. *French birth certificate and ID card. [Pics by KD2WSU.]*



Having been born and raised in France, English was not Charles' native language. This led to some interesting memories when he began school in the States. Once, while trying to explain to his teacher that he needed a freshly sharpened pencil, he was directed to the shiny gizmo on the classroom wall. Charles was "amazed" that students in America could sharpen their own pencils! This genuine

joy in everyday things became a recurrent theme in our 90 minutes together. I am impressed by Charles' pleasant, welcoming personality, and his frequent amazement with the miraculous workings of the universe.

Midwest radio

Upon arrival in the U.S., Charles' family moved to Rock Island, IL on the Mississippi River. Charles' father resumed his professional trade as a plumber. Working for his father provided him with an introduction to soldering, a skill that he still very much enjoys today. This skill would prove useful in his eventual pursuit of electronics and ham radio. To this day he enjoys the smell of solder and flux. While in Illinois, Charles built his first Heathkit radio. His family also owned a large Philco Console for shortwave broadcasts. He spent hours listening to shortwave transmissions, as well as the famous "Only **The Shadow** knows" radio show.

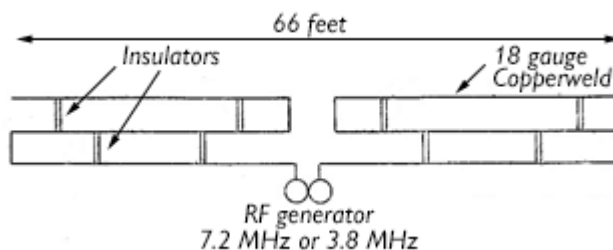
East coast amateur

Charles began his ham radio career in 1979 after enrolling in an adult education class in New York. He took his first test at the FCC Office in Manhattan and was granted his Novice Class license. At this time Morse Code was a required component of



Charles' log from April 1979 shows CW contacts on 10, 15, 40 and 80 meters.

the test process, a skill that Charles has become very proficient at during the course of his ham radio career. His first HF contact was in April 1979 with a TenTec Transceiver and a "Mor-Gain" wire all band.



"MorGain" antenna patented in 1966 by Dean Morgan W4GGS had dipole elements folded back on themselves to shorten the overall length. [After U.S. Patent 3,229,298.]

He also received his "first and only" Official Observer report (OO) regarding unintended harmonics. This report, was from an operator who had heard Charles' transmission on several frequencies. Not knowing how to resolve the situation, Charles contacted

ARRL. They responded with suggestions on how to clean up his transmission. This suggestion proved to be most helpful to Charles and he was grateful that someone had taken the time to send the observation. Ultimately Charles added a tuner which greatly improved his output.

Turn to the law

Although Charles longed to be an electrical engineer, he struggled with complex math. Eventually he turned to law, and attended NYU Law School. He then began the busy task of balancing a successful law career, and raising a growing family in Staten Island. Understandably, Charles' ham career entered a dormant period during this time. This dormancy lasted until 2009, when he assembled his first Elecraft HF Transceiver, and passed his Extra Class license test. These events, and the treasure of more free time, motivated him to restart his ham radio hobby.

North to Westchester

Today, Charles works from his three-generational hillside compound in Westchester. Agreeing to move to Westchester in 2015, Charles had one condition... tall, mature trees. It seems to me that he has fulfilled his obligation to both the trees and his antennas in a superb fashion. He frequently operates FT8, and often makes up to 50 contacts each day. On weekends, when he is not spending time with his family, he participates in CW contesting. He admits that "I'm not a chatty person" and therefore prefers these alternative means of ham radio operation. He currently uses an Elecraft K4 transceiver.



Elecraft SP3 speaker, Elecraft K4 transceiver, and (below) Elecraft K-Pod external control panel. [KD2WSU pics.]

Charles can comfortably copy call signs up to 23 - 25 wpm. For higher speeds he uses a CW reader which is built into the K4. His shack is an impressive place, dominated by a large curved display which shows his current FT8 work.

He has made worldwide contacts, including Antarctica, but says that India is often difficult due to



Charles N2SO in his radio room with Dell curved screen (left) and Elecraft equipment on operating bench.

the signal distortion at the poles. He joined PCARA after meeting Lou KD2ITZ on CW, and is a go-to person for antenna set up each Field Day. As one might assume, Charles has an impressive antenna set up of his own. He uses an Off-Center Fed (OCF) dipole in an inverted-V configuration going E/W with the apex at about 42 ft.

Due to the heavy weight of the LMR-400 coaxial transmission line, it is supported by a "messenger" line at 60 ft.



Off-center fed inverted-V dipole has feed-point suspended by 'messenger' line.

He also has a 160m sloper (top fed) at 60 ft. Additionally, Charles recently put up an end fed sloper at 60 ft going N/S. He stated that he still needs to complete the installation of the transmission line for this antenna.

When I realized that our time was coming to a close (I had grandparenting duties as well), I asked Charles what his most memorable ham radio experience was. In typical Charles fashion, he again referred to his amazement that nature allows for radio waves to even exist. Charles' positive outlook on things, and his joy with simple "wonder" made a lasting impression on me. Sitting with him and learning about his ham radio pursuits was a truly memorable experience. As I drove away, I thought about my own, very limited ham footprint. I will admit, that I have yet to find my niche. But then I thought about Charles, and realized that he exemplifies the phrase, "Do what works for you." Thanks, N2SO.

- 73 de Jim KD2WSU

POTA activation

On Sunday October 1st PCARA members headed to a hilltop site north of Jefferson Valley Mall in Yorktown for a “Parks on the Air” activation. Two days earlier, Lou KD2ITZ had sent out an invitation through Google Groups from himself, Mike W2IG and Verle W2VJ. The event was also publicized in the October issue of the *PCARA Update* newsletter.

This would be the **second** time that PCARA has activated Donald J Trump State Park – Indian Hill Section, POTA K-2048. The club’s previous activation had taken place on September 17, 2022.

Bright start

The day began with bright sunshine and a cloudless, blue sky. The weather was practically perfect, with temperatures rising to 75°F by mid-day, in distinct contrast to the cold, heavy rain of the previous week. Early arrivals at the park included Lou KD2ITZ, Vincent KD2VAV, Verle W2VJ, Mike W2IG and NM9J. They would be joined by Jared KD2HXZ (plus K9 companion), Joe WA2MCR and Mike N2EAB.

From the 2022 experience, a decision was made to site the station on one of the picnic tables adjacent to the gravel parking area. The grass was long, with the ground still wet in places. Mike W2IG had brought along his telescoping fiberglass mast, which was fastened to the picnic table using bungee cords. Mike had also brought his linked-dipole Packtenna which was supported, inverted-V style, on the guyed mast 24 feet above ground.



POTA antenna set-up

The HF transceiver in use was Verle’s Icom IC-7300. This was powered by a single Bioenno 12V 12Ah lithium iron phosphate battery, sufficient to keep the radio running with 100 watts PEP output for over 2 hours. Contacts were logged using N3FJP software on Verle’s notebook computer.

Operation began at 10:45 a.m. on 15 meters, with W0YKS in western Montana as the first station worked. Propagation was good toward Wisconsin and Florida, followed by a local contact with David KD2EVI.

Thirty minutes later, the band was changed to 40 meters, with “Park to Park” contacts guided by Lou who was monitoring POTA activity on his smartphone. Verle W2VJ reports:

“We had ‘Park to Park’ QSOs with 20 parks and trails. On three occasions, our contact was activating two parks or trails at the same time. For those of you who heard our



Verle W2VJ (center) operates the POTA station with Vincent KD2VAV logging and Mike W2IG checking the battery.

contact with N2NWK and wondered how he could activate five entities in our nation’s capital at the same time, his location was in a park and within 100 feet of the edges of four trails. He gave us the following park and trail numbers”

K-0784 Lyndon Baines Johnson Memorial Grove on the Potomac National Memorial
K-0670 George Washington Parkway
K-4564 Potomac Heritage Trail National Scenic Trail
K-4581 Star-Spangled Banner National Historic Trail
K-4567 Captain John Smith Chesapeake National Historic Trail”

In addition to working N2NWK, we received a call from David K2WPM in Virginia. Additional club members who were contacted included Joe WA2MCR and Bob N2CBH/M. Bob was returning from an upstate visit, driving south on Route 81 between Syracuse and Binghamton.



Malcolm NM9J operates on 15 meters from the POTA site. [Pic credit: W2VJ]

After 12 noon, operation switched back to 15 meters, where propagation had improved to reach as far as Sweden, Spain and Italy. Not bad for an inverted-V dipole and battery powered station! After a lunchtime sandwich run by Lou, the stations worked totaled 75 and the operation was declared a success.

Thanks to all who participated, operated and had a good time at Indian Hill. - NM9J

MorGain antenna

In this month's "Member Profile" article, Jim KD2WSU mentions how Charles N2SO made his first contact in 1979 with a "MorGain" wire all band antenna. I was sufficiently intrigued to take a closer look at this design — which promises a great deal, but may have some drawbacks.

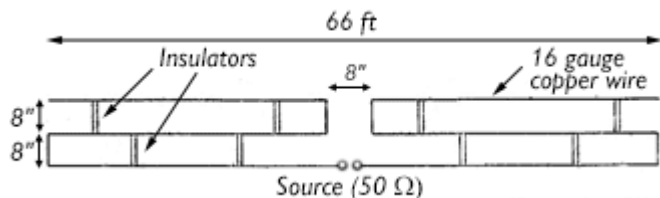
Morgan's Morgain

The "Morgain" antenna was first described by **Dean O. Morgan** W4GGS (SK 1984) of Alexandria VA in U.S. Patent 3,229,298 which was applied for in 1962 and granted in January 1966. Primary object of the patent was to provide an antenna whose physical length was reduced 50 percent or more compared with a standard half wave dipole or quarter wave vertical antenna — without reducing the efficiency.

This was achieved by bending each element back on itself in a zig-zag fashion. According to the patent, a dipole antenna only 66 feet long could operate satisfactorily on both 3.8 MHz and on 7.2 MHz.

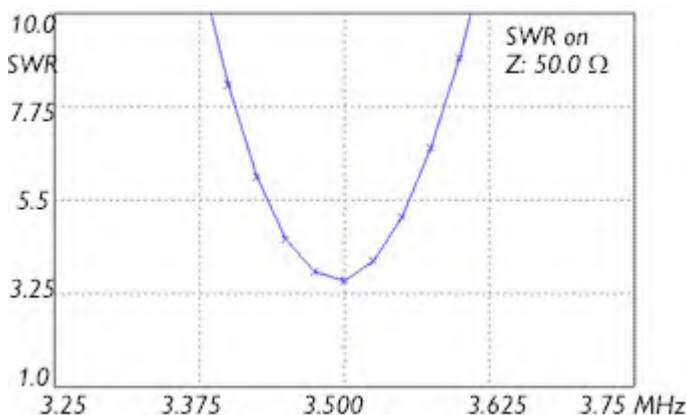
Model run

I carried out a check on this antenna design using antenna modeling software MMANA-GAL (see "A novel model", PCARA Update June 2015, page 6.)



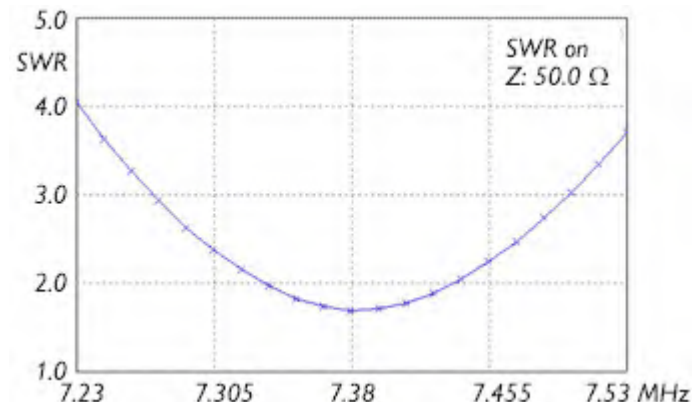
Dimensions of Morgain antenna described in US Patent 3,229,298 as modeled using MMANA-GAL software.

With a 66 foot overall length, the antenna was resonant at the bottom end of 80 meters on 3.50 MHz. Radiation resistance was low (14.10 +j4.61 ohms), bandwidth was narrow and SWR was 3.58:1.



SWR of the Morgain antenna on 80 meters as calculated by MMANA-GAL. Note high SWR and narrow bandwidth.

On 40 meters resonance occurred *above* the band edge at 7.38 MHz with an SWR of 1.70:1 and impedance of 84.95 -j3.15 ohms. On the higher frequency bands (10.1 MHz and above) the antenna was far from resonance — apart from the 17 meter band.



SWR of Morgain antenna on 40 meters as predicted by MMANA-GAL. Resonant point is outside 7.0-7.3 MHz.

Transfer of ownership

According to Internet postings (KA1YUW), the Morgain antenna's inventor W4GGS had to sell the company because of divorce. The business was picked up by Bob Quenstedt NØIRF and transferred to a factory in Leavenworth, KS. Along the way the company acquired a hyphen in its name, "Mor-Gain" and a trademark, registered in 1971, that looks rather like a batwing antenna.



Advertisements for "Mor-Gain" antennas began appearing in the pages of *Ham Radio* and *73 Magazine* from the early 1970s. Up to nine different antenna models were available priced from \$49.50 to \$76.50. The least expensive models covered just two bands, while the more expensive antennas covered three bands (75/40/20 meters) or five bands (75/40/20/15/10 meters).

The advertisement features the MOR-GAIN logo at the top. Below it, it lists several antenna models with their prices and frequency coverage:

Model 75-10HD	\$60.00	66 Ft.	75 Thru 10 Meters	Model 75-40HD	\$40.00	56 Ft.	75 Thru 40 Meters
Model 75-20HD	\$50.00	56 Ft.	75 Thru 20 Meters	Model 40-20HD	\$33.00	35 Ft.	40 Thru 20 Meters
				Model 80-40HD	\$42.00	69 Ft.	80-40-15 Meter (CW)

Additional text in the ad includes: "EXCLUSIVE 66 FOOT NO TRAPS - NO COILS - NO STUBS - NO CAPACITORS Fully Air Tested - Thousands Already in Use", "4#16 40% Copper Weld wire annealed so it handles like soft Copper wire—Rated for better than full legal power AM/CW or SSB Coaxial or Balanced 50 to 75 ohm feed line—VSWR under 1.5 to 1 at most heights—Stainless Steel hardware—Drop Proof Insulators—Terrific Performance—No coils or traps to break down or change under weather conditions—Completely Assembled ready to put up—Guaranteed 1 year—ONE DESIGN DOES IT ALL: 75-10HD—ONLY \$12.50 A BAND!", and "ORDER DIRECT OR WRITE FOR FULL INFORMATION" and "OR THRU YOUR FAVORITE DISTRIBUTOR".

Advertisement from 'Ham Radio' magazine, July 1973.

Those higher frequency bands were obtained by hanging extra elements for 20, 15 and 10 meters underneath the main folded-back wires for 80/40m — in a similar fashion to a fan dipole. This was the type of multiband Morgain antenna that Charles N2SO remembers using for his early contacts in 1979.

An additional feature of these antennas was the use of "U-tabs" or shorting jumpers that were placed

over the outer and inner folded ends of the folded back dipole for 80/40 meters – and over the fan elements if fitted. The instructions explained that: “The end-shorts control the frequency on the lower frequency band. Shorts near the center control the higher frequency bands.”

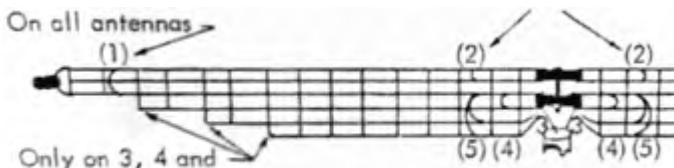


Diagram from Mor-Gain instructions shows position of shorting jumpers #1, 2, 3, 4 and 5 to adjust frequency.

The Mor-Gain company ceased operation around 1993 after NØIRF had a heart attack and passed away. (WBØETN).

Rebirth

Basic configuration of the Mor-Gain was resuscitated by Raymond A. Cook, W4JOH with an article entitled ‘The ‘Cobra’ Antenna’ published in 73 Amateur Radio Today for June 1997. He described a wire antenna for 160 meters with the ends folded back on themselves. Overall length was only 140 feet compared with 240 feet for a full-size half-wave dipole on 160m. He fabricated the antenna from 14-gauge Romex™ non-metallic-sheathed house wire, using all three conductors, white/black/bare wire, inside the PVC sheath. The antenna was fed with 450 ohm ladder line going to an antenna tuner and reportedly worked well on 160 and 75 meters.

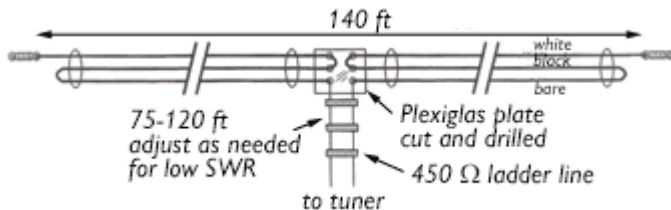
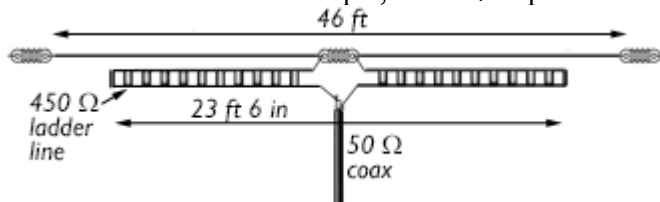


Diagram of W4JOH's ‘Cobra’ antenna design as described in 73 magazine for June 1997.

Linear loading

Nowadays, the type of antenna typified by the “Mor-Gain” is said to use “linear loading” — in other words the full-size antenna is shortened by folding — instead of using a loading coil or capacity hat. The linear-loading folded sections are air-spaced and do not radiate too much as the fields from adjacent conductors tend to cancel out. For example, Lew K4VX published



K4VX linear-loaded dipole for 40 meters is only 46 ft wide.

an article in July 2002 QST “The K4VX Linear-Loaded Dipole for 7 MHz”.

Lossy

The W4JOH “Cobra” antenna does *not* employ air-spaced conductors, instead they are covered with plastic insulation. 14-gauge Romex house wire as specified by W4JOH is usually insulated with **plasticized PVC**, extruded over the solid copper conductors.



14 gauge house wire has three solid copper conductors surrounded by flexible PVC.

From my own experience formulating compounds, the mechanical and electrical properties of PVC are heavily influenced by the addition of plasticizers, extenders, stabilizers, fillers, and pigment. Plasticized PVC can have a dielectric constant of 3.0-8.0 and a loss tangent ($\tan \delta$) of 0.04 - 0.16, varying with temperature and frequency. $\tan \delta$ represents the ratio of ‘energy lost’ to ‘energy stored’ in the dielectric material. Plasticized PVC has $\tan \delta$ values which are 500 - 800 times higher than low-loss polymers such as polyethylene or PTFE (Teflon™). For a given RF field strength, PVC insulation could be dissipating 500 times more power than PE or PTFE! (See: https://www.g3ynh.info/zdocs/comps/part_6.html)

Plasticized PVC is *never* used as the dielectric in commercial RF cables. Commercial coaxial cable employs polyethylene, PTFE or air as dielectric, with PVC only used for the plastic sheath, to protect the outer conductor. 300 ohm ribbon and 450 ohm ladder line both employ polyethylene as insulation. The amount of dielectric material between conductors is minimized by using foamed polyethylene, semi-air spacing or cutting out ‘windows’ in the ladder-line.

Plasticized PVC is fine for supplying AC electrical power at 50-60 Hz, but it is *not* suitable for RF transmission. Owen Duffy VK1OD calculated that the use of 23 feet of PVC speaker twin cable to feed a G5RV antenna could result in 7.8dB of line loss at 3.5 MHz. (<https://owenduffy.net/blog/?p=29022>). Similar losses can be expected in the PVC insulation of the three-conductor house wire used in W4JOH’s “Cobra” antenna.

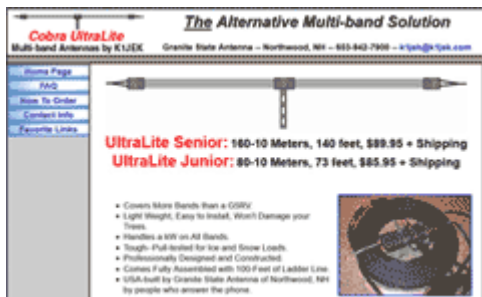


Twin speaker cable is **not** suitable for RF power transmission.

Cobra goes commercial

In 2003-4 Joe Kramas K1JEK of Northwood NH began advertising “Cobra Ultralite” antennas. The Ultralite Senior was 140 ft long and covered 160 – 10 meters. The Ultralite Junior was 73 feet long and covered 80 – 10 meters.

Both antennas were constructed from three-conductor flat, insulated wire, fed with 100 feet of ladder line (later reduced to 81 feet). An



Cobra Ultralite antennas as advertised by Granite State Antennas (K1JEK) in 2004.

ATU was recommended. The “FAQ” page states that the design is based on the W4JOH Cobra and while “this antenna works identically to a ladder-line fed doublet” on primary frequency and harmonics, the close-spaced multi-wire element introduces “added resonant responses below the antenna’s fundamental operating frequency.”



Flat three-wire antenna rotator cable.

In this way, the 73-foot (40-meter) Cobra also covered 60 and 75 Meters. Photographs of the antenna appear to show three-wire brown rotator cable or similar three-wire flat power cord for the folded-back elements. See: <https://www.k1-jek.com>.

The web site admits that “on its sub-bands where the Cobra is physically ‘short’, efficiency is somewhat lower than for a full-sized dipole.”

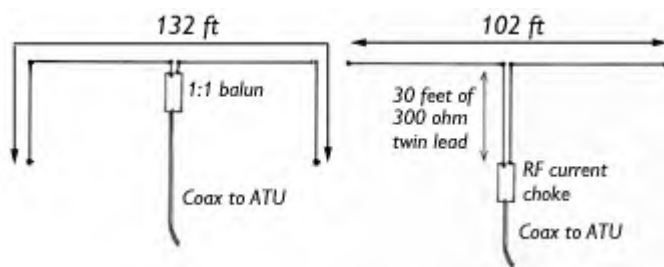
Just how much the efficiency is impaired is described by Rich K1BQT of Barrington NH, who co-operated with Joe K1JEK on design of the Cobra Ultralites. Using a miniature test antenna with insulated multi-wire cable he estimated that 65% of the power was being dissipated as heat in the wire’s insulation, a loss of 4.5dB. In a 73-foot long 3-wire Cobra the multi-wire antenna only radiates 22% of the supplied power compared with an air-spaced version, a loss of 6.6dB. When compared with a full-size dipole for 75 meters, the 73 foot Cobra could be 9.8dB down. (<https://www.non-stopsystems.com/radio/pdf-ant/cobra-1.pdf>).

Owen Duffy VK1OD modeled the 73 foot Cobra ‘Junior’ antenna and concluded that system losses were relatively high, exceeding 3dB on 80 and 17 meters. There was a possibility of high losses near to 80m, 30m and 15m. (<https://owenduffy.net/antenna/cobra/index.htm>)

Conclusions

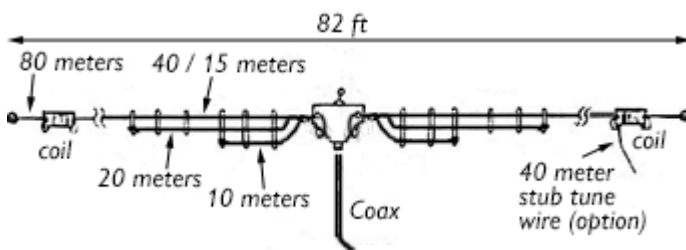
If you need a multi-band wire antenna for 80 – 10 meters to fit into a limited space, then a linear loaded design is one possibility, preferably with air-spacing for the linear loaded section. You will almost certainly need an antenna tuner to cover multiple bands. But if you choose a design where the linear loaded section and antenna wires are close together and enclosed in a lossy insulator such as plasticized PVC, be prepared to lose 60-90% of your power as heat on some frequencies.

A better solution (in your editor’s view) would be to choose a design where the 80 meter elements are shortened by folding the ends down — or by folding the middle part down into a section of transmission line à la G5RV.



An 80 meter dipole can be shortened by bending the wire ends down (left) or by folding the middle part down into a section of transmission line, G5RV-style (right).

Another way to shorten dipole length is by use of loading coils in the 80 meter wires, as in the MFJ-17758 for 80/40 meters or the Alpha Delta DX-CC multiband antenna.



Alpha Delta DX-CC antenna is only 82 feet wide thanks to loading coils inserted into the 80 meter wire dipole. Antenna covers 80, 40, 20, 15 & 10 meters. [After Alpha Delta]

Any antenna that is shortened from a full half-wave dipole is likely to have narrow bandwidth and low radiation efficiency. The trick is to find the best design that fits your needs and your available space.

- NM9J

Superior simplex - N2KZ

Miracles *do* happen! I had a feeling there was magic in the air. My wife and I traveled a round trip to Boston on Tuesday, October 4th. We arrived home around 8:30 p.m. Wednesday was an action-packed day on my schedule so, upon arrival home Tuesday night, I checked into my little Midland receiver for NOAA All-Hazards radio KWO35 from New York City on 162.550 MHz to hear what Wednesday might bring.

I thought they were having technical issues. All the weather reports mentioned Central Pennsylvania! Little did I know that my little radio with just a simple indoor whip antenna was actually pulling in 250 watt WXL43 from Wilkes-Barre also on 162.550 MHz. It was FM capture effect in action! I was really tired so I just went to bed!



Normal coverage (solid green color) of NOAA Weather Radio station WXL43.

The next morning, Wednesday, October 5th, was just as confusing! My over-the-air TV was pulling in digital television from the oddest places: Binghamton, Philadelphia, Baltimore and everything in-between. What was 2 meters doing? My high-powered and most proficient 2 meter setup lives upstairs: A Yaesu FT-1900 mobile transceiver — at about 50 watts — that I feed into a four-element Arrow Yagi that I have rope-tied to a desk chair I connect up for the weekly Old Goats Net!

I quickly set it up and positioned the Yagi towards the southwest. Wow. The simplex calling channel, 146.520 MHz sounded like a pile-up that was layers and layers deep. Stations were



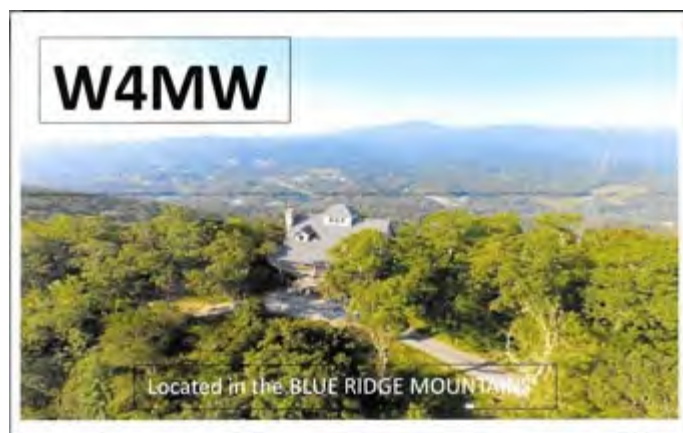
4-Element Yagi antenna with chair support at N2KZ. [Credit: N2KZ]

just pouring in on top of each other. I managed a quick QSO with Nick, N3GTH in Dalton, Lackawanna County, Pennsylvania — just north of Scranton — a 110 mile shout with full-quieting! Nice.

My excitement could not be contained, so I called Malcolm, NM9J on the phone and said “Put on your radio! You can’t believe what is going on!” While talking to Malcolm I heard a station from North Carolina coming over the din of the ongoing layers of simplex stations screaming for attention. Roger, W4MW asked his contact “Let’s move to 55 so I can hear you!” I saw my chance!

I jumped to 146.550 MHz (next simplex channel up) and called and called to W4MW. He heard me right away! (All this while Malcolm was still on the phone with me as my witness.) We exchanged QSO information and mutual amazement! Roger was in Boone, North Carolina, EM96df, a mere 557.6 miles away with full quieting and armchair quality. Boone is right between Knoxville, Tennessee and Winston-Salem, North Carolina! Simply beyond my wildest dreams!

I was in good hands for my longest 2 meter QSO ever. Roger is no slouch on 2 meters. A seasoned VHF enthusiast, Roger earned an amazing 2 meter Worked All States award #140 along with superior scores in many challenging contests. I sent Roger a picture of my wood chair Yagi for a final laugh. Isn’t tropo grand? And thanks to Malcolm. He heard my entire adventure live over a cell phone. Fun doesn’t get any better than this. I received Roger’s QSL this morning! It will be cherished forever!
- Karl N2KZ



QSL card received by N2KZ from Roger, W4MW, located at 4725 ft ASL in Boone, NC.

Stop Press: On Oct 27 Roger W4MW replied to Karl’s antenna description as follows:

“WOW. Really, a 4 element beam inside the house? Tell me you had the antenna mounted on a tower outside... It’s amazing. I am proud to have worked you. Simply remarkable. The QSO from NC to NY on 2m is remarkable alone. I just looked your QTH up on a map and you are almost in CT. Thanks for the QSO and QSL.”

Fall foxhunt 2023

PCARA's Fall foxhunt took place on Saturday October 28th, after breakfast at Downing Park Pavilion. Lou KD2ITZ had arranged the event with FDR State Park and advised that other activities would be taking place at the same time. This included a Disc Golf tournament on the two courses near Parking Lots 1 and 4.

Following success in the Spring foxhunt of May 13, 2023, supervision of the fox transmitter was the responsibility of Mike N2EAB. Mike stole away from breakfast shortly after 10:00 a.m. with the 'fox box'. Hunters were not allowed to enter FDR Park until 10:30 a.m. By then, the Pool Parking lot was bright and sunny — though temperature was still only around 65°F. The five starting teams were as follows.

Vincent KD2VAV and Ratan
 Lou KD2ITZ and Mike K2MBL
 David KD2EVI and Rob AD2CT
 Nick KD2SKY and Ed KD2STB
 Malcolm NM9J

Rob AD2CT had a brand new offset active attenuator to try out with his tape-measure Yagi, see <https://kc9on.com/product/fox-hunt-offset-attenuator/>. But a coaxial cable that should have been clamped down in a screw-block connector came loose and nobody had a sufficiently small screwdriver to fix the problem. As a result Rob and David KD2EVI worked together. David was using an Elk Antennas 2M/440L5 dual-band log periodic antenna



Rob AD2CT had an offset active attenuator for his antenna.



David KD2EVI and Rob AD2CT prepare for the hunt.

At exactly 10:45 a.m., the first fox transmission came on air using FM on a frequency of 146.565 MHz. There was a little confusion at the start as a strong signal was also present on the third harmonic frequency, 439.695 MHz — this was probably an accidentally-keyed HT.



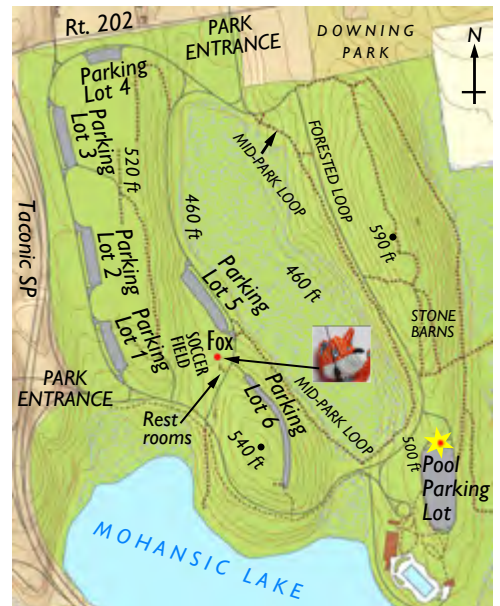
Vincent KD2VAV and Ratan prepare to receive the first fox signal.

Tape measure Yagis and other antennas swung around and it was soon clear that the signal was coming from due west. Teams began moving off in the same direction as previous foxhunts, along the pool approach road. David KD2EVI and Rob AD2CT turned off this road along the "Mid Park Loop" thinking that it might provide a shorter route to the fox. They reached as far as the bridge, then decided to avoid poison ivy by reversing and rejoining other hunters heading toward Parking Lot 6.

Your editor was a little ahead, alongside the highly nimble team of Vincent KD2VAV and his friend Ratan. The signal direction led us up the steep path from the Pool Approach Road to Parking Lot 6, then across the same elevated area that we had crossed during the Spring Foxhunt of May 13, 2023.

We reached the area where the fox was hidden in May 2023, near the north end of Parking Lot 6 — but the direction was still northwest. I caught a glimpse of Mike N2EAB's

SUV in the Parking Lot and noted that the Fox harmonic on 439.695 MHz had become audible. I left my large, heavy 2 meter Yagi on a picnic table and continued onward with just the 440 MHz Yagi from April's Antenna Construction Workshop.



Map shows location of the fox transmitter near Parking Lot 5 and the soccer field.

I crossed the road at the vehicle entrance to Parking Lot 6 and headed into the woods, past the restroom, toward the soccer field, occupied by geese. There I caught up with Vincent KD2VAV and Ratan who had just spotted Mike N2EAB at a nearby picnic table as they found the fox.



L to R: Ratan and Vincent KD2VAV found the fox at 11:05 a.m., with Mike N2EAB supervising nearby.

One minute later, sweeping around the trees with my UHF yagi, I found the fox as well, several feet above ground level in the fork of a tree.

A few minutes later, Lou KD2ITZ and Mike K2MBL were searching the same area and discovered the fox transmitter.

Later on, we could see Nick and Ed (in red shirt) high above us in the distance, followed by Rob and David. Mike N2EAB began sending hints on 146.565 MHz, during pauses in the fox transmission.

The aim was to guide hunters down toward the restroom. Eventually all five teams found the fox in his tree and the transmitter was switched off. Here are the arrival times as observed and recorded by Mike N2EAB.

Vincent KD2VAV and Ratan	11:05 a.m.
Malcolm NM9J	11:06 a.m.
Lou KD2ITZ and Mike K2MBL	11:12 a.m.
Rob AD2CT	11:35 a.m.
David KD2EVI	11:38 a.m.
Nick KD2SKY and Ed KD2STB	11:49 a.m.

By now the sun was shining brightly, the tempera-

ture had reached 78°F and teams gathered together for a group photograph. Most of the competitors then walked back to the Pool Parking Lot, exchanging their hunting experiences.



Fox (held aloft by Mike N2EAB) and hunters all together.

Congratulations to Vincent KD2VAV and Ratan for finding the fox first — their second successful win. (Their first successful hunt was in October 2022.) Vincent will be invited to supervise placement of the fox and monitoring of hunters during the next PCARA Fox-hunt.

- NM9J

West Point key

Rob AD2CT sent in this photograph of a brass telegraph key, recently seen in the Museum at West Point. The label reads: “Telegraph Key – (Believed to have been used by the Signal Corps in 1865)”.

The U.S. Army Signal Corps, founded in 1860, made use of both “wig-wag” flag signaling and the electric telegraph during the Civil War of 1861-1865.



Peekskill / Cortlandt Amateur Radio Association

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PCARA on Facebook: <https://www.facebook.com/pcararadio>

YouTube Channel: <https://www.youtube.com/@peekskillcortlandtamateur7670>

PCARA Update Editor: Malcolm Pritchard, NM9J

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Newsletter contributions are always very welcome!

Archive: <http://nm9j.com/pcara/newslett.htm>

PCARA Information

PCARA is a **Non-Profit Community Service**

Organization. PCARA meetings take place every month (apart from July/August break). See <http://www.pcara.org> for current details.

PCARA Repeaters

W2NYW: 146.67 MHz -0.6, PL 156.7Hz

KB2CQE: 449.925MHz -5.0, PL 179.9Hz

N2CBH: 448.725MHz -5.0, PL 107.2Hz

PCARA Calendar

Sat Nov 4: PCARA Monthly meeting, **4:30 p.m.**, Putnam Valley Library, 30 Oscawana Lake Rd, Putnam Valley, NY.

Mon Nov 13: PCARA V.E. Test Session, 7:00 p.m., BOCES Room 235 (Microcomputer Tech Classroom), see below.

Sat Nov 18: PCARA Breakfast, 9:00 a.m., Uncle Giuseppe's, 327 Downing Dr. Yorktown Heights, NY.

Hamfests

Check with organizers before leaving.

Sun Nov 12: LIMARC Hamfest and Electronics Show, Levittown Hall, 201 Levittown Parkway, Hicksville, NY. Open to buyers 9:00 a.m.

Sat Nov 18: NJ Antique RC Hamfest Swap Meet, Parsippany PAL Building, 33 Baldwin Rd, Parsippany, NJ. 8:00 a.m.

VE Test Sessions

Check with the contact before leaving.

Nov 4, 11, 18, 25: Westchester ARC, 19 Hunts Bridge Rd, Yonkers NY. 11:00 a.m. Must contact VE, ac2t'at'arrl.net.

Nov 4, 11, 18, 25: NYC-Westchester ARC, 43 Hart Ave, Yonkers NY. 12:00 noon. Must contact VE, k2ltm'at'aol.com.

Nov 9: WECA, Westch Cnty Fire Trg Center, 4 Dana Rd Valhalla NY. 7:00 p.m. Contact VE N2gdy'at'weca.org.

Nov 13: PCARA, 7:00 p.m., Putnam | Northern Westchester BOCES, Tech Center, 200 BOCES Drive, Yorktown Heights, Room 235. 7:00 p.m. Must contact VE. Mike W2IG, w2igg'at'yahoo.com.

Nov 17: Orange County ARC, Munger Cottage, 40 Munger Dr, Cornwall NY. 6:00 p.m. Contact: w2bcc'at'arrl.net.



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Crompond, NY 10517