



PCARA Update



Volume 26, Issue 10 Peekskill/Cortlandt Amateur Radio Association Inc. October 2025

Bridge to nowhere

The **September PCARA Membership Meeting** was held on September 6, 2025 at 10:15 a.m. at the Putnam Valley Free Library in Putnam Valley, NY. There were several items on the agenda, including the 2 meter repeater antenna change, the Run Against Hunger's 10K route and the Holiday Dinner location. Three candidates at the subsequent VE Test Session were successful.

PCARA and WECA have been asked once again to provide communications support for the **Harry Chapin Memorial Walk/Run Against Hunger**. This year's event is on Sunday October 19, 2025 at Croton-Harmon High School in Croton-on-Hudson, NY. A major difference this year is that Quaker Bridge in Croton-on-Hudson has been declared unsafe so there is a **new route** for the 10K Run. We need members for mile posts and water stops around the three courses (10K, 5K, and 1 Mile Fun Walk/Run). A planning session will take place in early October to review courses and checkpoints. Please come join us to support a great cause and help end hunger in our communities. [See p.11 -Ed.]

A good number of members visited the Mount Beacon ARC Hamfest on September 14, and even more arrived for the outdoor PCARA Breakfast on September 20, at Uncle Giuseppe's Marketplac in Yorktown Heights. We continue to welcome new members through our VE Test Sessions and popular Breakfasts.

Here is a reminder that three Director positions



Breakfast at Uncle Giuseppe's on September 20th was attended by eighteen members and one dog.

are set to expire at the end of the year. The three positions are currently held by Greg KB2CQE, Mike W2IG and Lou KD2ITZ. Elections are scheduled for the November 2025 meeting.

Please mark your calendars with these upcoming events:

- Saturday October 4, 2025 at 10:15 a.m.: **PCARA Membership Meeting** at the Putnam Valley Free Library in Putnam Valley, NY. Our Guest Speaker will be ARRL Hudson Division Director Ed Wilson N2XDD.
- Saturday October 4, 2025 at 11:30 a.m.: **PCARA ARRL VE Test Session** at the Putnam Valley Free Library. Candidates must contact Lou KD2ITZ using radiocassetta'at'gmail.com. *Continued on page 2* ⇨



Nine members traveled to the Mount Beacon ARC Hamfest in Hopewell Junction, NY on Sunday September 14.

Contents

Bridge to nowhere	1
VE Test Session	2
Adventures in DXing - N2KZ	3
Calling All PCARAns! - N2KZ	5
YouTube channel	5
NY QSO Party 2025.....	6
Launching forth - NM9J.....	7
Icom ID-880H update - KD2EVI	10
Run Against Hunger 2025.....	11
Fall foxhunt October 25	12
Tone squelch memories - NM9J	12
Windows 10 reprieve - NM9J.....	13

- Saturday October 11, 2025 at 8:00 a.m.: Bergen Amateur Radio Association (**BARA**) **Fall Hamfest**, Westwood High School, 701 Ridgewood Road, Township of Washington, NY.
- Saturday October 11, 2025, Emergency Preparedness **Simplex Test**, 2:00 p.m.. 146.565 MHz. (See p. 5 -Ed.)
- Saturday October 18, 2025 at 9:00 a.m.: **PCARA Breakfast** at Uncle Giuseppe's Marketplace in Yorktown Heights, NY.
- Saturday October 18, 2025 from 10:00 a.m.: **New York QSO Party** club entry from Joe, WA2MCR's location. Individual entries are also encouraged. Use "Peekskill/Cortlandt ARA" for the club name.
- Sunday October 19, 2025 at 8:00 a.m.: 45th Annual Harry Chapin Memorial **Run/Walk Against Hunger** at Croton-Harmon High School in Croton-on-Hudson, NY. Please join us.
- Saturday October 25, 2025: **PCARA Foxhunt** at FDR State Park, Yorktown Heights, NY. Hunters should assemble in the Pool Parking Lot for a 10:00 a.m. start time. [See p. 12 -Ed.]

Remember that our next scheduled **PCARA Membership Meeting** will be on Saturday October 4, 2025 at 10:15 a.m. at the Putnam Valley Free Library in Putnam Valley, NY, with guest speaker Ed Wilson N2XDD. Please join us.

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 Test Session

PCARA's latest Volunteer Examiner Test Session took place on Saturday September 6 at Putnam Valley Library, following on from the September meeting. This was a Laurel VEC Test Session with no exam fee.

Zenen KE2FRX from Beacon, NY had been a candidate at PCARA's April 2025 Test Session, where he had gained his Technician license. On September 6 he passed Element 3 and upgraded from Technician to General. Well done.

Mary Ellen KE2GNZ and Robert KE2GOF had gained their Technician licenses from PCARA's August Test Session at Putnam Valley Library. On September 6, both passed Element 3 and upgraded from Technician to General. Congratulations to both! The FCC acted on all three upgrades with effect from September 8, 2025.

Volunteer Examiners who took part in the September test session included Lou KD2ITZ, Ken W1YJ, Charles N2SO, Joe W2BCC and NM9J. Also present were Verle W2VJ and Vincent KD2VAV, observing Exam-Tools in operation and the Laurel VEC procedure. Lou had scheduled the session and carried out uploading of results to Laurel VEC. Joe W2BCC provided the 10-inch tablet computers used by the candidates.



September's VE Test Session took place at Putnam Valley Library.

PCARA's next VE Test Session is scheduled for Saturday October 4th, at Putnam Valley Library, following on from the October meeting. This will be an ARRL VEC Test Session, where each group of tests is \$15.00. Candidates should contact Lou KD2ITZ using radiocassetta'at'gmail.com.

Adventures in DXing

- N2KZ

Two Is Better Than One

Wouldn't it be nice to wake up in Maui, Hawaii? I have been there. It is as magnificent as it sounds. There are magnificent sounds on the radio, too! My very favorite station on Maui is non-commercial KMNO Mana'o Radio on 91.7 FM.

(*Mana'o* is a Hawaiian word meaning 'thoughts'.) Thoughtful it is! KMNO is a vibrant free-form community station just brimming with life and variety. You can tune in instantly at: <https://manaoradio.com/streaming-player/>.

Maui is everything you might expect of an island deep in the Pacific Ocean. It is the culmination of two volcanoes: Pu'u Kukui in the west and the larger and active Haleakalā in the east. Most people live between the two volcanoes in the cities of Wailuku, Waikapu and Kahului along with many little towns along the roads that circle the volcano bases along the magnificent seashores.



Map of Maui [Base map: Open Street Map]

Solid FM transmission thrives on a line-of-sight path from transmitters to listeners. This can be a problem with two big volcanoes in your neighborhood! Meeting this RF challenge, KMNO found a simple solution using very inventive and clever engineering.

The KMNO main transmitter sits high at the summit of the enormous Haleakalā volcano peak operating with a single-bay SWR (Systems With Reliability) model FMEH/PLUS omni-directional antenna with an ERP of 1200 watts *horizontal only*. It looks very much like a cousin of our classic amateur radio J-pole design.

Even with this super high perch, almost a full kilometer up in the clouds, KMNO's main signal simply could not be heard on the far side of the other



SWR FMEH/PLUS antenna.



volcano, Pu'u Kukui, to the west. To fill this dead spot, KMNO applied for and was granted a license for an on-frequency booster to be located just north of Lahaina adjacent to the Outrigger Kā'anapali Beach Resort. This new booster facility, known as KMNO-FM1, was designed using a *vertical* antenna at a power of 600 watts ERP. The antenna's bi-directional pattern almost perfectly covers all the hotels, houses, businesses and beaches along the main highway, Route 30, that circles Pu'u Kukui.

KMNO's dual transmitter system is perfect in every way. Mana'o Radio is now heard across Maui using the same

91.7 MHz frequency serving two completely autonomous coverage areas. Using *horizontal* polarization for the main transmitter and *vertical* polarization for the booster added another (theoretical)

20 dB of separation between the two. Nothing beats a thoughtful, clever and simple plan in RF engineering. They created a SFN — Single Frequency Network. Problem solved!



Coverage map for horizontally-polarized-KMNO and vertically-polarized on-frequency booster KMNO-FM1, 91.7 MHz.

Not So Simple

Multiple transmitters on a single frequency creating expanded coverage began in the 1920s and 1930s on broadcast AM radio. One early attempt was the combination of WBZ and WBZA to cover not only Boston but all of New England. Over in The United Kingdom, the BBC employed many synchronous medium wave and longwave broadcast transmitter systems creating wide-area coverage with some still in operation today!

Necessity breeds invention. In our modern era, digital broadcasting was our premiere headline in the world of RF engineering. America's in-band on-carrier HD Radio was first introduced in 2002. This was a troubled system from the start.

In practice, HD Radio digital could not match the hardy range of good old, reliable analog broadcasts. In addition, the piggybacked digital signals degraded the already established analog signals we still rely on. When there was not enough signal to resolve the digital signals, they did not fade away gracefully. They dramatically went silent. This was a problem!

All sorts of ideas were floated to make HD Radio

more robust and whole. Research and development engineers were called to duty. Single frequency networks once more took the spotlight as a viable fix. Carefully placed boosters came first. Multiple transmitters on the same frequency required meticulous trial and error to create a worthy synchronized system.

Each transmitter's audio had to match in time to avoid confusing stadium-like echoes. A greater challenge was to find perfect synchronization for all the digital signals and the myriad of accessory signals within. The analog audio had to be in time with the digital version. In turn, the complex digital signal had to be distributed and carried in near perfect fidelity to the original product produced at the radio station's studios. New technologies, like audio delay devices combined with sophisticated digital synchronizers, met most of these challenges.

As time progressed, IBOC HD Radio fell by the wayside when modern audiences were introduced to podcasts and full-fidelity streaming. Traditional radio struggled to retain listeners. Station owners yearned to prove to their advertisers that broadcasting was still a relevant and essential medium that was growing in appeal and in audience numbers. Once again, the concept of single frequency networks found new utility.

How do you make your over-the-air audience grow? If your station already has a maximum power signal emanating from a mountain or tall building, how can you improve? Additional FM frequencies are becoming impossible to obtain — and — listeners don't like to flip from frequency to frequency to hold a program. What to do?

A Whole New World (for FM Radio!)

Taking cues from very popular and reliable cellular telephone and other wireless data systems, broadcast equipment manufacturers now offer a completely new approach to FM broadcast radio transmission. The design wizards at **Nautel** and **Gates Air** worked for years and years designing and refining new equipment and came up with some pretty amazing solutions.

Imagine this: When you use one almighty transmitter, you create a far-reaching signal. In your fringe coverage areas, your signal predictably becomes weaker in overall field strength — and — less and less reliable producing multiple dead spots. This old fashioned approach is becoming quite unacceptable. With today's ever-higher RF noise levels, presenting a robust signal everywhere is a must!



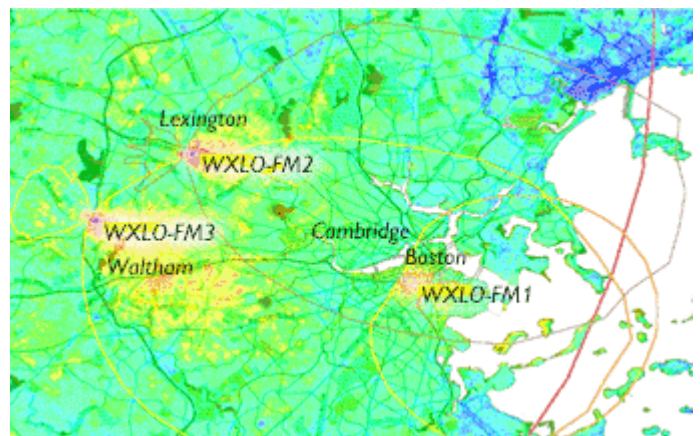
Single frequency networks come to the rescue! Instead of one central transmitter, create a cellular network of lower-powered multiple transmitters all in GPS-locked synchronicity on the same frequency. Each transmitter becomes the center of an SFN node.

Many aspects must be considered to create SFN node clusters.

Each node needs to be autonomous, not encroaching or otherwise degrading adjacent nodes. Appropriate directional antennas must be used when broadcasting with carefully selected RF power levels. Consideration of overall terrain and man-made obstructions are also pivotal in the design. If you align all of these elements together in concert, a SFN cluster will eliminate coverage holes and bring stronger signals to all parts of their allocated service area... at least in theory!

It Works In Boston

One nearby SFN success story is WXLO 104.5 FM (37 kilowatts ERP — 40 miles west of Boston) licensed to Fitchburg, Massachusetts. Originally, WXLO was intended to serve Boston suburb Worcester, Mass with only a very limited reach into the much more desirable Boston market. WXLO added three carefully positioned on-channel booster transmitters: 10 watts in Boston, 450 watts in Lexington and 700 watts in Waltham. Now WXLO has a firm grasp on the Boston market with a much more efficient signal distribution system than ever before — all on 104.5 FM.



Coverage of the three 104.5 on-frequency booster stations WXLO-FM1 Boston, WXLO-FM2 Lexington and WXLO-FM3 Waltham MA. Main station WXLO on 104.5 MHz with 37 kW ERP is off the map, 40 miles west of Boston.

Get In The Zone

There's more! Let's take the cellular broadcast FM concept to even a higher step of distribution efficiency.

Geo Broadcast Solutions in Chicago has now added more value to the SFN concept. With ZoneCasting® you can target very specific areas of your listenership instead of providing one-for-all broadcasts towards everyone who is listening. A station in Peekskill could



have custom commercial versions for Poughkeepsie and Tarrytown along with Peekskill and deliver them all to those discreet audiences simultaneously. Quite a concept!

Stations would feed audio to each single frequency network node separately. Come back from the commercials and all nodes revert to the main program. Just imagine the value of offering advertisers very local targeting. You could send specific content to each individual transmitter and direct your potential clients to very nearby stores. You could also provide them more appropriate and very local traffic reports not wasting talk time on areas you are not near. If there is a massive road closure in one area, you wouldn't have to bore your listeners who are far away from the problem and lose their attention. Very high tech!

Show Me The Money

All of these new approaches to maximize the possibilities of FM radio come with a proviso: Single frequency networks do not come easily! New technology allows these systems to be created — but — should they be created? Radio broadcasting is a business that must follow a thoughtful and viable financial plan. Is the cost and effort of building a new single frequency network upgrade worth the results? Most important: Can you afford the project... and afford to maintain it?

The building steps are long and detailed. You must first have a consultant design and author all the technical aspects for your proposed system including finding sites for your additional transmitters. Your plans are then sent to the FCC. If approved for a construction permit, site leases or real estate deals must be made. All necessary equipment must be specified, purchased and installed. Internet hookups and system management equipment needs to be configured and tested. When you have everything in place and ready to go, the FCC then needs to provide an STA (special temporary authority) to test your new system on the air. Certify that your upgrade operates as designed and does not produce interference to other stations — and then — apply for and receive permanent licenses from the FCC. Ready? Set? Go! Now, that was easy! (Not!)

One of the most difficult tasks in advancing technologies is trying to develop new features or conveniences that end users would find useful — and in turn — make a nice profit for your company. Think about the endless updates to computer operating systems,

new video games or utility programs. It can be quite a moneymaking cycle. If you create something in the very latest software version, users with older copies of the same program might have to upgrade just to see what you have done to try it.

More money is sent to the software company. A brilliant cycle!

Formulating new ideas has always been an essential start to all new technologies. What do you have in mind? Maybe you would like to just stick to two-meter simplex... and you thought the WECA repeater system was complicated!

Until next month, Happy Halloween and good DX DE N2KZ "The Old Goat"



Calling All PCARAns!

Should all usual links of communication fail or in the event of an overall power failure, it would be worthwhile to know what to expect and how we can contact each other. Let's take a first step towards this goal on **Saturday, October 11, 2025 at 2:00 PM** for a brief test on **146.565 MHz FM simplex** to see who can hear who without the aid of a repeater.

You can participate from home or from a remote location with a mobile or other transceiver or a simple HT handheld. It would be helpful if you could also let us know if you can operate without usual Con Ed or NYSEG power from your home QTH. Do you have mobile capability on two meter FM?

Also adding to our eventual plan and procedures, I will be contacting nearby amateur radio clubs to discover what emergency plans they might have and how we might share information as needed. Have you had previous experiences with emergency preparedness? It would be great to know! Thanks for your help with this important project. See you on October 11 at 1400 hours!

- N2KZ

YouTube channel

On September 24, Rob AD2CT released a new video to PCARA's YouTube channel: <https://www.youtube.com/@peekskillcortlandtamateur7670>.

Northeast HamX, Aug. 2025 – The PCARA Experience depicts flea market, booths and speakers at the recent Northeast HamXposition™ in Marlborough, Mass. Direct link to the episode: <https://youtu.be/hwuKZK1dKcU>.



NY QSO Party 2025

The New York QSO Party is scheduled for Saturday October 18, from 10:00 a.m. to 10:00 p.m. ET, or 1400z October 18 to 0200z on October 19.

Rules for the 2025 New York QSO party appeared on September 24. You can find a copy on the NYQP web site, <https://nyqp.org>. There is a significant clarification of the 2025 rules for Clubs and Club Logs as shown below. This may affect PCARA members who take part from a vacation site and members who belong to more than one club.

Clubs and Club Logs (Rule clarification)

- In-state club definition: A club that has any part of its defined club area touching New York is considered an in-state club.
- Club scores must come from within the club's defined area. Stated another way: An entrant who is a member of a club may not submit a log for that club if operating from a location outside the club area.
- Multioperator logs that are submitted for a club may not be split among more than one club

PCARA's club entry

For New York QSO Party 2025, Joe WA2MCR will once again be hosting PCARA's effort as a multi-operator entry from his sun-room. Please let Joe know if you will be joining the club effort in 2025.

PCARA members can also submit individual entries, operating from home or in the field, then have their scores accumulated for the combined "New



2024 New York QSO Party certificate awarded to W2NYW as shown at the September meeting by NM9J. The club entry was hosted by Joe WA2MCR. [K2WPM pic.]

York Club high score". Just bear in mind the rule clarification for 'outside the club area' shown above. When submitting your entry, please indicate your Club Name as "Peekskill/Cortlandt ARA". Various categories are available for individual stations including: Single operator, Mobile or Portable. Power can be: High, Low or QRP. Mode options are: CW only, Phone only or Mixed mode — meaning any combination of Phone, CW, and RTTY/digital modes that support the NYQP exchange requirements. Digital modes that do not natively sup-

port the NYQP exchange may not be used in NYQP — so most activity is likely to be RTTY or PSK-31.

At the time of writing, PCARA is listed as the sponsor of one NYQP plaque, the "Out of State and DX" award for Low-Power Phone.

When and what

The contest starts at 10:00 a.m. Eastern on Saturday October 18 and runs for 12 hours until 10:00 p.m. that same evening. For the contest exchange, New York State stations send signal report plus county, using a three-letter abbreviation for the county name. Westchester County is WES and Putnam County is PUT. Stations outside New York will send their Signal Report plus State, Province or "DX". Full rules, including the list of three-letter county codes, can be found at the New York QSO Party web site: <https://nyqp.org/wordpress/>.



Logging software

When operating from your own station, if you would like to employ the same computer software that is used at other PCARA events, N3FJP's State QSO Party logging programs are available from the following page: <https://n3fjp.com/stateqso-party.html>. Registration for the NY State QSO Party Contest Log is \$8.99, or you can register **all** of N3FJP's logging programs for \$59.99. The current version is 2.2.7, so if you purchased an earlier version, you may need to download a free update.

The N1MM Logger software, <https://n1mmwp.hamdocs.com/> can also be used. Set-up instructions are available at the NYQP web site under "Info you can use".

Launching forth

Radio amateurs need to raise antennas as high as possible. An old saying is — if you don't lie awake on a windy night worrying about your antenna, then it isn't high enough. There are several methods for launching support lines over trees and other high spots.

Slingshot

Long ago, I had a slingshot ('catapult' in British English) for launching lines over trees. I added some lead fishing sinkers and a spool of 25-lb test fishing line. (Modern sinkers are lead-free, made of steel or tungsten.)

Local note: New York State Law §265.01 makes possession of a "wrist brace type slingshot" a criminal offense. This item is listed alongside illegal weapons such as switchblade knives and throwing stars. Outside NYC, a slingshot *without* a wrist brace should be legal, though care is still needed not to cause harm or property damage.

After a slingshot sends a sinker soaring over a tree, the monofilament fishing line needs to be retrieved. I found manually winding line back onto the spool tiresome. Commercial slingshot devices incorporate a fishing reel attached to the sling, making it easy to feed line out and reel it back in. One example was the RadioWavz "**Hyper Hanger**", re-



This type of slingshot with wrist brace is illegal in New York State.



Monofilament line with fishing sinker attached.



Ray W2CH aims a Hyper Hanger in 2006. [KC2NKU pic.]

viewed by Ray W2CH in *PCARA Update* for November 2006. This model is no longer in production, though RadioWavz (<https://www.radiowavz.com/>) still manufactures baluns and wire antennas.

A current company providing slingshot launchers for amateurs and cable installers is **EZ Hang Inc.** Their "EZ Hang Square Shot" antenna launcher is constructed from welded steel rod with a plastic/stainless steel reel attached, containing 300 feet of 10-lb-test line. There is a choice of launching 1-ounce weights or bright yellow tennis balls. See: <https://ezhang.com/>. Because of slingshot legislation, EZ Hang advises purchasers to check their state and local laws before ordering.



EZ Hang Square Shot launcher.

Arborist throw

Another device for launching lines over a tree is the **arborist throw**. It consists of a weight attached to a length of slippery, braided line. Tree-care professionals would swing the weight from one hand while aiming at the desired tree branch, then release weight and line in the desired direction.

I have a "**Weaver Arborist** throw line and weight", consisting of a bright orange fabric bag filled with 16 oz of lead shot and fitted with a metal ring. This is attached to 150 feet of lightweight, yellow braided polyethylene rope. See: <https://www.weaverarborist.com/>.



Weaver Arborist throw line and weight.

The arborist throw is inexpensive, but limited in accuracy and the height that can be reached. It requires both skill and practice. Mike N2EAB employed this device to pull lines over trees during PCARA's 25th Anniversary celebrations in FDR Park in May 2025.

Fishing rod and reel

I was introduced to the fishing pole method by Joe WA2MCR, who has used his rod and reel to launch lines over his own trees and during many PCARA events. Joe attaches a metal sinker to the end of the

fishing line, swings the rod back, then casts upward in the direction of the desired tree branch or other support.

Aim is important, and it usually takes a few tries before the line flies over the chosen part of the tree. Depending on the surroundings and undergrowth, it can then be difficult to locate the sinker at the end of the line. Colored paint can make it easier to find. With the sinker removed, the antenna support rope is attached to the end of the monofilament line and pulled back over the tree branch using the fishing rod's spool winder. Wrapping vinyl tape around the knot between monofilament line and the folded-back rope can prevent snagging on a tree branch.

I had a recent need to launch a line myself and found a very inexpensive rod at Walmart. The "Zebco® Slingshot Spincast Fishing Rod and Reel Combo" has a 5' 6" long fiberglass rod with enclosed reel, pre-spooled with 10-pound line for only \$12.37.



Zebco 202 Slingshot blue 2-pc medium-light Spincast combo.

I was worried about possible damage from metal sinkers if my aim was off, so I made my own launch weight from a bright yellow Wilson tennis ball, with two nylon ties wrapped around it. The fishing line was then attached to the tennis ball by threading around one of the nylon ties.

I had never handled a fishing



Tennis ball with nylon ties.



Joe WA2MCR uses his fishing pole technique to launch a line over lighting poles during Field Day 2011.

rod before, so there was a learning experience in assembling rod and reel, adjusting the controls then launching the relatively heavy 2-ounce tennis ball. A drag adjustment knob on the reel increases resistance to subsequent movement when turned clockwise.

With the rod in front of you at waist height, the reel positioned above the rod and the weight hanging just below the end

of the rod, depress the spool release push button with your thumb to prevent the line from unspooling. Sweep the rod backward over your shoulder then bring it forward swiftly, directing the rod at the desired target. Release the thumb button as the rod reaches the top of its swing.

I carried out a few practice casts in the back yard and realized that fishermen are a lot more skilled than I am at reaching a desired casting target. To add to problems, wind will also affect the aim. Even so, a fishing pole with tennis ball or sinker attached provides an inexpensive way to launch lines over trees — and retrieval of the line after each attempt is much easier using the reel handle. A longer pole than my 5' 6" Zebco would increase casting range if needed.

Remember: "On the end of every fishing line is an optimist."

Pneumatic launcher

The most accurate way to launch a line over a tree employs compressed air to expel a metal sinker or a tennis ball. PCARA's first encounter with this type of launcher was at Field Day 2016 when Mike N2HTT brought his home-made launcher, based on "The W4SSY Spudgun" as described in *QST*, March 2009 pp 67-69. This design employs Schedule 40 PVC pipe with a hand-operated tire pump to pressurize the chamber and an electrically-controlled lawn sprinkler valve as the release mechanism. The fishing reel was another Zebco 202.



Zebco 202 Spincast reel.



Mike N2HTT uses his home-built launcher at Field Day 2016.

Charles N2SO has a **CSV17** pneumatic launcher from Alan Biocca Engineering, <http://www.akbeng.com/>. This unit is 17 inches long with a 3-inch diameter PVC pressure chamber which can be pumped up with a tire inflator. Various mains-powered and portable inflators have been used in the field. The unit has a coaxial reel for feeding out and retracting the high-visibility nylon twine. Charles has successfully used this launcher at his own location, at PCARA Field Days and at special event stations.



Charles N2SO uses his CSV17 launcher to send lines over light poles at Field Day.

As I discovered with the fishing line technique, wind can affect the aim of any tennis ball launcher, and it is best to choose a time when the air is still.

Another brand of pneumatic launcher is the **AirBoss**, from Olah Technologies, <https://www.olahtechnologies.com/>. The original AirBoss was manufactured by William Olah KR4LO and the business is now run by his grandson, Eric. The design features a 2-foot barrel made of 3/4" ID PVC pipe attached to a 2" ID reservoir through a pressure release valve. The reservoir is fitted with a pressure gauge and Schrader valve for inflation. The recommended weight is a 2-ounce lead fishing sinker, tied to nylon line which is released from the attached reel.

David KD2EVI has this type of launcher, which he pumps up from a 120V Harbor Freight air compressor. He has used it to launch lines over his own trees and for other amateurs in our area. Once the 2-ounce weight has been directed over the desired tree branch, the sinker is removed, a length of antenna rope is attached to the nylon line, then the line is reeled back in.



David KD2EVI with the AirBoss pneumatic launcher.

Another choice of launcher is featured in Rob AD2CT's video of HamXposition™ 2025, where he interviews Bobby KC2UPN on the "DX Launcher" antenna system. (See: <https://youtu.be/hwuKZK1dKcU>.) The DX Launcher can propel a weighted tennis ball over 100 ft — or 300 ft for the 'Plus' version. These products are marketed through Ray W2RE's HamRadio 24-7 web site, <https://www.hamradio247.com/shop>.

Safe launch

Firing any sort of weight over a tree can be one of the more hazardous aspects of our amateur radio hobby. It is most important to check that the area in front of the launcher is clear of people, animals and property that might be harmed by a misfire, especially if the weight is a small, dense fishing sinker. The launch operator should be wearing eye protection and a hard hat, in case of accidental release, in case the line is snagged or if the weight rebounds. Spectators should all stay behind the launcher at a safe distance. Always keep well away from overhead lines.

Pneumatic launchers can be especially hazardous in view of the large amount of stored energy when the chamber is pressurized. Do not load the weight into the barrel until ready for launch. Be careful when moving into the launch-position with a charged launcher — a simple stumble can trigger release in an unexpected direction — as I discovered one Field Day! And a launcher should never be left alone or stored while still pressurized.

Pneumatic launchers manufactured from PVC pipe and fittings must never be over-pressurized — there is a danger of the plastic shattering. Makers of PVC pipe and fittings say their products should not be used with compressed gases for this reason. When pumping up the launcher, use the minimum amount of pressure to achieve your target height. Never exceed the launch manufacturer's recommendations for maximum allowed pressure.

- NM9J

Icom ID-880H update

- KD2EVI

I was asked to write an update on the Icom ID-880H radio installation in my Audi, which was published in the May 2025 *PCARA Update*.

The short answer is: I am very pleased with the radio, battery set-up, and antenna.

I have been using 12 Ah Bioenno lithium iron phosphate batteries to power the radio, not a lead-acid battery and the (still unavailable) West Mountain Radio ISOpwr+, as suggested by Smitty, KC1IKA in his 2024 HamXpo presentation. I have not measured how long the 12 Ah battery runs the radio, but as I obtained about 10 hours of run time on my TYT TH-8600 (mostly listening) from a 3.5 Ah battery in my Go-box, 25 to 30 hours would not surprise me. Changing to the second battery, (I have two batteries in the improvised battery box in my car's trunk) only takes a few minutes, and I am more comfortable not having a lead-acid battery in the trunk in the event of a mishap.

The ID-880H is a nice radio, albeit discontinued by Icom. I really don't use the D-STAR capability, and stay with FM. The small control head, Velcroed to my dashboard, is unobtrusive and



ID-880H control head fastened to dash with Velcro. [KD2EVI pics.]

is working out as well as I had hoped. I have local repeaters and common simplex frequencies programmed into the radio and can scan those, or just leave the radio on the 146.67 repeater. It does not have the dual-receive of the Icom IC-2730 radios that I use in my truck and my home, but the control head size makes up for any lack of flexibility, and is more pleasant to use

than the TYT TH-8600 that it replaced. The computer speaker that was the original external speaker has been replaced by a smaller, used, Icom SP-22 speaker



Icom SP-22 mobile loudspeaker.

purchased from MTC Radio: <https://www.mtcradio.com/>.

The antenna and mount are a Comet CP-5 trunk/hatch mount along with a Comet SBB-1 antenna that date to 2018 and were first used on my Subaru

Forester. The antenna mount is secured to the trunk deck by small set-screws and is easily installed with no damage to the car's finish.



Comet CP-5 adjustable lip mount and Comet SBB-1 16" dual-band antenna. [KD2EVI pic.]

If you are thinking about a mobile radio installation, my suggestion is to go ahead. Using an external battery elimi-

nates the possibility of interfering with the complicated electrical systems (e.g. multiple microprocessors, 48-volt electrical systems, etc.)

found in late model vehicles and is very practical, as I have found. If you wish to save money over the price of a new radio as I did, used VHF/UHF radios can be obtained from fellow PCARA members, hamfests or online. The installation process itself is not hard and you will have more opportunities to get on the air.

What is a 48 volt mild hybrid?

A mild-hybrid electric vehicle (MHEV) is a half-way step between a gasoline-powered vehicle and a full hybrid design. It has an electric motor powered by a small 48 volt battery. The motor is part of an integrated starter-generator which replaces the normal alternator and separate starter motor. The electric motor assists the gasoline engine when a lot of power is needed, for example during high acceleration. This saves fuel as the gasoline engine is not working so hard. The integrated starter-generator is also part of the automatic stop-start system since it can start the engine faster than a normal 12 volt starter. The 48 volt battery is charged during deceleration and regenerative braking, as in a conventional hybrid. If 12 volt power is also needed for accessories, this is provided from a DC/DC inverter.

As an example, the mild hybrid system in recent Audi models incorporates a water-cooled 48 volt, 37 ampere-hour lithium iron phosphate battery. A belt alternator starter (BAS) starts the engine and delivers electrical energy to the 48V battery. The BAS provides power during regenerative braking, participates in the automatic stop/start function, boosts power during hard acceleration and allows the combustion engine to shut off when coasting or stopping.

Run Against Hunger 2025

Our eleventh year

PCARA and WECA have once again been invited to provide communications support for the Annual Harry Chapin Memorial Run/Walk Against Hunger, which takes place on Sunday October 19th, 2025. The first Run Against Hunger was organized in Croton-on-Hudson to honor singer-songwriter Harry Chapin who died in a Long Island auto-accident in 1981. This year will be the 45th occasion that the event has been commemorated. For 2025 the run is being organized as an in-person race taking place on Sunday October 19th along with a virtual event during October 11-15.

10K route change

In November 2024 the 130-year old Quaker Bridge in Croton-on-Hudson was deemed unsafe by Westchester County and closed to traffic. As a result, the 10K Race can no longer make use of the bridge, which carries Quaker Bridge Road over the Croton River. There is a description of the new route below.

Sunday schedule

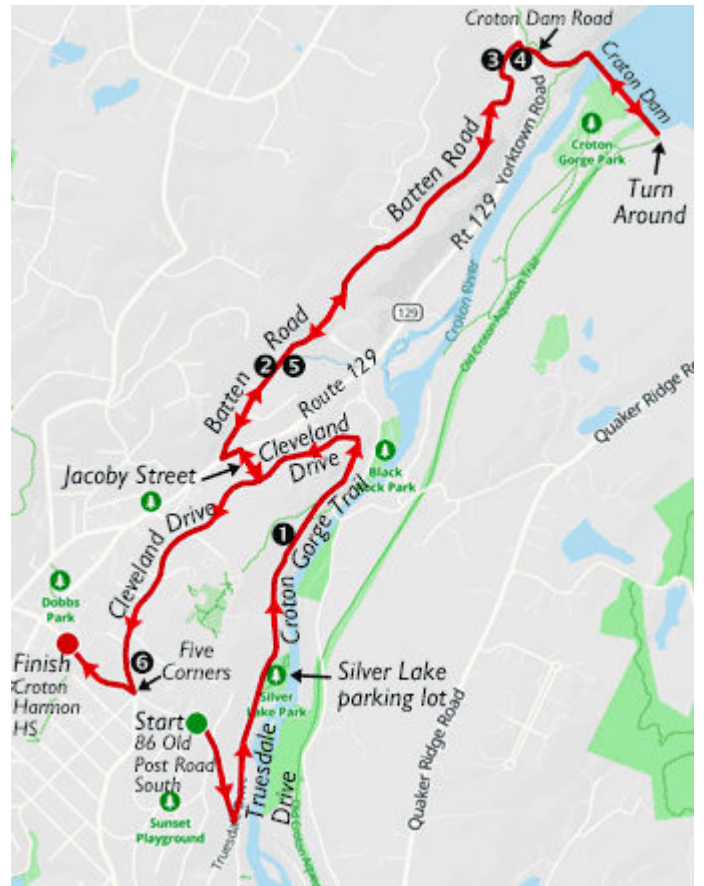
Timing of the races will be the same as for the 2024 event. The 5K Race/Walk starts at 8:30 a.m. This is followed by the 10K Race which begins at 10:00 a.m. The final event is the 1 mile Fun Run which begins at 11:45 a.m. The 5K Race/Walk starts near the school, the other two events begin further away, beyond Five Corners/Veterans Corners. Finish lines are all close to Croton Harmon High School.

5K Race & Walk, 8:30 a.m. – 9:30 a.m.

The 5K Run/Walk begins near the High School and continues along Old Post Road South, down Truesdale Drive, east on Cedar Lane, then north up Nordica Drive and Truesdale Drive, through Croton Gorge and returning down Cleveland Drive to the High School.

10K Race, 10:00 a.m. – 11:30 a.m. (New route)

The 10K Race starts southeast of Five Corners/Veterans Corners at 86 Old Post Road South, then a sharp left turn into Truesdale Drive. North to the Silver Lake Parking Lot and onto the Croton Gorge Trail. At the end of the trail, onto Cleveland Drive, right turn into Jacoby Street, left turn onto Grand Street/Route 129, then quick right turn onto Batten Street. Follow Batten Street to the end then cross Route 129 into Croton Dam Road. Cross the Croton Dam and turn round at far end barrier. Return over dam, Croton Dam Road, across Route 129 and back down Batten Road. Left turn onto Grand Street/Route 129 and quick right onto Jacoby Street, returning down Cleveland Drive to Old Post Road South and the High School.



New route for the 10K Run starts on Old Post Road South, travels through the Croton Gorge Trail to the New Croton Dam, then returns down Batten Road and Cleveland Drive. Circled numbers: ⑥ are mile posts. [Base map: Run Against Hunger]

One Mile Fun Run, 11:45 a.m. – 12:30 p.m.

The start point of this run/walk is on Cleveland Drive, just south of Veteran's Corners. North on Cleveland Drive to CET (Carrie E Tompkins) Elementary School on Gerstein Street, then back along Cleveland Drive, finishing at the High School.

Descriptions of the three routes are available at the Run Against Hunger web site, <http://www.runagainsthunger.com/course/>. Details of radio stations and water stops should be available from David KD2EVI and Greg KB2CQE; register your interest by sending an e-mail to David and Greg using mail@pccara.org. Bring a high-visibility vest and program your mobile and HT with these suggested frequencies:

Freq MHz	Offset	PL tone
147.060	+0.600	114.8
145.110	-0.600	114.8
447.475	-5.000	114.8
146.565	Simplex	

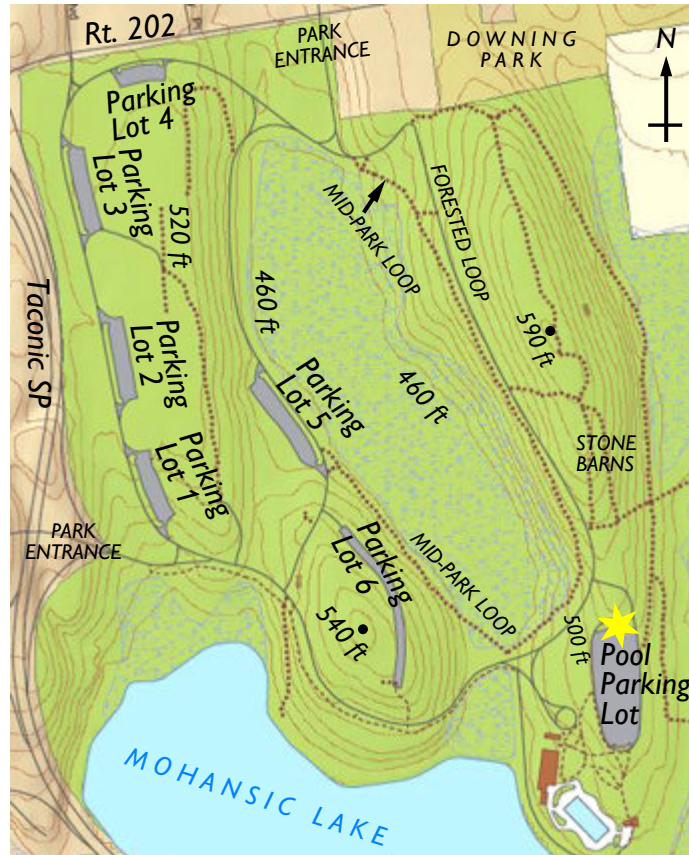
Radio coverage for all-terrain-vehicles and portables negotiating the Croton Gorge Trail during the 10K Run has yet to be determined. If the trail car-ATV picks

up a runner, the radio operator may have to alight and walk. Please watch for announcements about possible changes to frequencies, water-stops and mile-posts via e-mail or the Google group. Setup at the High School should begin around 7:30 a.m. for Net Control at the usual location on the driveway

Fall foxhunt October 25

PCARA's next Foxhunt is scheduled for 10:00 a.m. on Saturday October 25th, 2025. The rules will be similar to previous PCARA events in FDR State Park. Here are the **Foxhunt rules** courtesy of Lou, KD2ITZ:

- Transmission: FM simplex on 146.565 MHz.
- Transmissions start at 10:00 a.m.
- All are welcome to participate.
- Participants must start in the Pool Parking Lot.
- Participants are not allowed to enter FDR Park before 9:45 a.m.
- The transmitter will be hidden within the confines of FDR Park.
- Please be mindful of **other events** scheduled for October 25 including "The FDR Ghoul's Fest" Disc Golf tournament on the Disc Golf and Ace Place courses near Parking Lots 1 and 4.



Map of FDR State Park showing Foxhunt start point at the north end of the Pool Parking Lot. [Base Map NYS Parks.]

- Once the event begins, participants must remain on foot, without assistance of vehicles of any kind.
- Participants are encouraged to work in groups of two or three.
- Participants who locate the transmitter should discreetly inform the event coordinator who will note the time. Avoid revealing the site to other participants who are still hunting.
- The participant who locates the transmitter in the least amount of time will be invited to assume the role of fox at the next event.
- Any changes due to weather or unforeseen circumstances will be posted to the PCARA Google Group and Facebook Page.

Tone squelch memories

Have you missed the CW ID on PCARA repeaters of late? The reason might be "tone squelch".

Bob N2CBH has been replacing PCARA's older FM repeaters with Motorola MTR-3000 repeaters. They are configured to *decode* the low frequency CTCSS (or PL™) tone that is necessary to access the repeater. Decoding the CTCSS tone on the repeater's input ensures that only signals intended for the repeater will be re-transmitted on the output frequency.

These machines also *encode* the same tone on the repeater's output, which has a similar effect. It allows your mobile or portable transceiver to only open receiver squelch for *intended* signals. This prevents distant repeaters and random carriers from opening squelch. Nowadays there are all sorts of odd devices producing carriers and squirrely noises on or about 146.670 MHz. Just drive along Route 202 or Route 6 to hear some of them.

If you do not want odd signals opening your radio's squelch, you should program your FM transceiver to *decode* the PL tone, as well as encoding the same tone on your transmitted signal. Most mobile and portable radios refer to this arrangement as **tone squelch** — in other words, the receiver will only respond when the correct PL tone is present, rather than opening in the presence of just a carrier. It may be indicated on the display as 'T SQL' (Icom, Yaesu) or 'CT' (Kenwood).

Bob N2CBH explains that when these Motorola repeaters transmit the required Morse Code identification, they **turn off** the encode PL tone for the duration of the ID. This is to minimize the amount of audio clutter for those monitoring the frequency. If your radio is programmed for "tone squelch" on the repeater channel, you will *not hear* the CW ID. All audio is muted for the length of the Morse code identification.

Here is a suggestion. When you are programming

memories into your transceiver, set up *two* adjacent channels for the *same* repeater frequency. The first memory is programmed with tone encode but no tone decode (no tone squelch). The second memory is set up with the same frequencies but with tone squelch (CTCSS) turned *on*. For example:

Channel	Freq MHz	Offset	Encode	Decode	Type
8	146.670	-0.600	156.7	-	
9	146.670	-0.600	156.7	156.7	(tone sq)
101	449.925	-5.00	179.9	-	
102	449.925	-5.00	179.9	179.9	(tone sq)

With this type of memory channel setup, the first memory selection makes everything audible, including CW ID, distant repeaters and random noises on the frequency. One click of the memory selector moves to the next channel *with* tone squelch, so no co-channel interference and no CW ID should be heard.



Top: display on Icom IC-2720 FM transceiver shows two memories with CTCSS tone on transmit (T). Below: adjacent memories with tone squelch (T SQL), arrowed.

When possible, the repeater waits for the end of a signal on the input before starting to send the CW ID. If someone then transmits *during* the ID, the repeater will temporarily pause ID and turn encode PL tone back on so the input signal can be heard.

- NM9J

Windows 10 reprieve

Do you have a computer still using Microsoft Windows 10? This operating system, introduced in July 2015, has become popular for running all sorts of amateur radio software — for logging, digital modes, slow-scan TV, radio programming, antenna modeling etc.

Microsoft support for Windows 10 is officially ending on **October 14, 2025**. After that date, your computer will no longer receive *automatic* updates for security, correction of faults or additional features. Microsoft has been encouraging people with recent computers to enjoy a free upgrade to Windows 11. According to Microsoft, older models that are unsuitable for Windows 11 should be replaced with a new computer.

(This will be good news for PC manufacturers and for Microsoft’s license income.)

Before you rush to Windows 11 or purchase a new computer, take a look at Microsoft’s **Extended Security Updates (ESU)** program. It will keep your domestic Windows 10 PC up-to-date with critical and security updates until October 13, 2026, one year from the official end of support.

To enroll in the ESU, your Windows 10 PC needs to be connected to the Internet and on the latest version, Windows 10 **22H2**. Release any controls that might be pausing updates or constraining the version before proceeding.

Click on the “Start” button, click on the “Settings” gear icon then select “Update & Security”. An offer to enroll in the Extended Security Updates program should appear on the Windows Update screen similar to the screen grab alongside.



Windows Update

You're up to date
Last checked: Today, 3:36 PM

Check for updates

View optional updates

Windows 10 support ends in October 2025

Enroll in Extended Security Updates to help keep your device secure.

Enroll now Learn about the end of support

Before clicking “Enroll now”, you will need to have a Microsoft Account and meet one of these three requirements:

- Synchronize your PC’s settings and apps “to help move to a new Windows 11 device” — or
- Redeem 1,000 Microsoft Rewards points — or
- Pay \$30 USD.

When I enrolled my ten-year old PC and supplied account details, Microsoft recognized that I already had a computer with settings synchronized — so my enrollment was at “no extra cost”. I came back to the “Windows Update” screen and saw a note on the right-hand side that “Your PC is enrolled to get Extended Security Updates. Learn more about Extended Security Updates”.

If you have more than one Windows 10 computer, you can carry on enrolling additional PCs in the ESU program — up to a total of ten PCs.

For more information see: <https://www.microsoft.com/en-US/windows/end-of-support#FAQ3> .

- NM9J

Peekskill / Cortlandt Amateur Radio Association

Mail: PCARA, PO Box 146, Crompond, NY 10517

E-Mail: mail 'at' pcara.org

Web site: <http://www.pcara.org>

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

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

PCARA Update Editor: Malcolm Pritchard, NM9J

E-mail: NM9J 'at' arrl.net

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 Oct 4: PCARA Monthly Meeting, 10:15 a.m., Putnam Valley Library, 30 Oscawana Lake Rd., Putnam Valley, NY. **Guest Speaker:** ARRL Hudson Division Director Ed Wilson N2XDD.

Sat Oct 4: PCARA VE. Test Session, 11:30 a.m., Putnam Valley Library, see below.

Sat Oct 11: Emergency prep simplex test, 2:00 p.m., 146.565 MHz.

Sat Oct 18: PCARA Breakfast, 9:00 a.m., Uncle Giuseppe's, 380 Downing Dr, Yorktown Heights, NY.

Sun Oct 18: New York QSO Party, 10 a.m. - 10 p.m.

Sun Oct 19: Harry Chapin Run Against Hunger, Croton-on-Hudson, 8:00 a.m.

Sat Oct 25: PCARA Foxhunt, FDR State Park, Pool Parking Lot 10:00 a.m. start.

Hamfests

Check with organizers before leaving.

Sun Oct 5: Splitrock ARA N Jersey Tailgate Hamfest, Landing Park Recreation Complex, 165 Landing Dr, Landing NJ. 8:00 a.m.

Sat Oct 11: Bergen ARA (BARA) Fall Hamfest, Westwood High School, 701 Ridgewood Rd., Township of Washington, 8:00 a.m.

Sun Oct 12: Nutmeg Hamfest, Maloney High School, 121 Gravel Street, Meriden, CT 06450. 8:00 a.m.

VE Test Sessions

Check with the contact before leaving.

Oct 4: PCARA, 11:30 a.m., Putnam Valley Library, 30 Oscawana Lake Rd., Putnam Valley NY. Must contact VE Lou KD2ITZ, radiocassetta'at'gmail.com. ARRL VEC.

Oct 9: WECA, Westch Cnty Fire Trg Center, 4 Dana Rd Valhalla NY. 7:00 p.m. Contact VE, rcasino48'at'gmail.com.

Oct 17: Orange County ARC, Munger Cottage, 40 Munger Dr., Cornwall NY. 6:00 p.m. Contact VE: joed99'at'verizon.net.



Peekskill / Cortlandt Amateur Radio Association Inc.
PO Box 146
Crompond, NY 10517