



PCARA Update



Volume 19, Issue 9 Peekskill/Cortlandt Amateur Radio Association Inc. September 2018

Labors of Hercules

We had a true (and very well attended) working PCARA Breakfast on Saturday August 11 at Turco's in Yorktown Heights, NY. Plans were finalized for the PCARA Special Event Station to be held on Sunday August 26, 2018 at the John C. Hart Library in Shrub Oak, NY. The station was part of a constellation of activities taking place for the **230th Birthday Celebration of Yorktown, NY**. Please look for pictures and



The John C. Hart Library in Shrub Oak publicized PCARA's Special Event Station on their illuminated sign.

information about the Special Event Station in this month's edition of the *PCARA Update*. PCARA is now officially a 501(c)(3) tax-exempt nonprofit corporation, as defined under Title 26 of the United States Code. This exemption allows donors to the organization to reduce their taxable incomes by the amount of their donations, and PCARA to avoid paying federal income taxes on the difference between revenues (donations, grants) and our expenses (up to \$10,000 — I wish!). This development was made possible through the Herculean and generous efforts of **David K2WPM**. David spent many hours writing letters to the IRS and filling out forms on our behalf. David, we are truly indebted and obliged to you. On behalf of the membership of PCARA, **THANK YOU!**

A PCARA **VE Test Session** is scheduled to take place on Saturday September 15, 2018 at 11:00 a.m., at the John C. Hart Library in Shrub Oak, NY. The session and testing location are the result of the efforts of Mike W2IGG, Charles N2SO, and Lou KD2ITZ. This is the first PCARA VE Test Session since May 2003. Thank you gentlemen! If you know anyone who might be interested in taking an exam, please let them know.

The next PCARA Breakfast is scheduled for Saturday September 22, 2018 at 9:00 a.m., which will feature a special visit from **Ria Jairam N2RJ**, a candi-

date running for ARRL Hudson Division Director. Please join us for breakfast and to ask any questions you may have for Ria N2RJ. That same afternoon, September 22, join the hunt for Mike N2EAB in **PCARA's Fall Foxhunt** starting at the Beach Shopping Center from 2:30 p.m.

Here are a couple of regional hamfests to help you ease into autumn.

- Saturday October 13, 2018: Bergen Amateur Radio Association (BARA) Hamfest, Westwood Regional Jr./Sr. High School, 701 Ridgewood Road, Township of Washington, NJ 07676. For more information, please visit: <https://www.bara.org/hamfest/>
- Sunday October 28, 2018: Mount Beacon Amateur Radio Club (MBARC) Fallfest Hamfest, Fishkill, NY.

Our next regularly scheduled meeting is on **Sunday September 9, 2018** (not September 3 — **Labor Day**) at 3:00 p.m. at NewYork-Presbyterian Hudson Valley Hospital in Cortlandt Manor, NY 10567. Please note that we will be visited by ARRL Hudson Division Director **Mike Lisenco N2YBB**, who will be available to answer any questions you may have on ARRL issues and the upcoming election for ARRL Hudson Division Director. As always, I look forward to seeing each of you there.

- 73 de Greg, KB2CQE

Contents

Labors of Hercules - KB2CQE	1
Adventures in DXing - N2KZ	2
Experience EchoLink - KD2ITZ	5
TYT TH-8600 installation in Subaru - KD2EVI	7
PCARA Foxhunt rules	9
Household recycling	9
Essential ₂ hanging - NM9J	10
Special Event Station	11

PCARA Officers

President:

Greg Appleyard, KB2CQE; kb2cqe at arrl.net

Vice President:

Joe Calabrese, WA2MCR; wa2mcr at arrl.net

Adventures in DXing

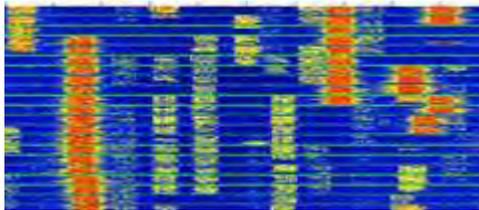
- N2KZ

The Last DXers?

A new day has come. Virtually every radio station is digitally streaming and can be heard perfectly around the world via the Internet. Smart speakers can take you there! You can actually operate software-defined radios located all over the world with your computer too. Who needs a legacy traditional radio anymore? Digital delivery makes everything predictable, reliable and attainable in pristine quality. Welcome to the new world in the year 2018!

Those of us who grew up listening to static and propagation effects on little transistor radios will surely revel in the remarkable world in which we now live. Change can be confusing: Several generations of radio and TV DXers are now wondering what to do. You know things have rapidly changed when DX clubs are discussing just how to log and count stations. With FM and TV transmitters pumping out multiple programs and channel designations you have to wonder what counts as a new logging or 'station!'

There may be naysayers that insist that over-the-air DXing is not yet dead. For the moment, that may be true but old, seasoned radio listeners are witnessing some truly amazing historical events. Most obvious to this author is the rapid replacement of traditional **Morse Code** transmission by a digital format called



FT8 waterfall.

computer software, you can rattle off nearly instantaneous QSOs that last as little as 20 seconds apiece using very little transmitter power. Who could ask for anything more? Well...

When you experience the current **FT8 fad**, you will quickly notice how the CW sub-bands have diminished in popularity. I feel like a living fossil getting on 7030 kHz and calling a straight key CW CQ. Where did all the QSOs go? Are you kidding, OM? Tune to 7079 kHz instead and start to warble along with the rest of the FT8 world!

Another recent set-back to fossil DXers (like myself) is the pending demise of the stalwarts of the shortwave scene — **WWV** and **WWVH** — the standard time and frequency stations on the air since the 1920s. If a 2019 budget request is approved, the familiar 'At the tone, the time will be 9 hours 22 minutes Coordinated Universal Time' will also become history. Can

you imagine short-wave radio without the sound of **WWV**? I wonder about the fate of longwave cousin **WWVB** at 60 kilohertz used as a time standard for millions of household clocks, wrist-watches and many other devices. Will they all just begin free-running without the **WWVB** reference signal?

The curtain may be closing on shortwaves as we remember it, but we should embrace our history. How fortunate I feel to have received a shortwave radio as

a gift back in 1965 at the height of worldwide broadcasting. It was an amazing time indeed. In 1965, it had not been very long since some major broadcasters had upgraded to full 50 kilowatt transmitters and huge complex slewable antenna arrays. I remember Canada's CBC moving to 50,000 watts at their Sackville, New Brunswick transmitting facility. What a signal!



WWVH antenna for 15 MHz has two 1/2-wave vertical dipoles positioned one 1/4-wavelength apart. The lower half of each dipole is a skirt of nine wire radials.



CBC's Radio Canada International transmitting station at Sackville, New Brunswick.

In the next few years, behemoth 500,000 watt transmitters graced some major stations' facilities, making far-off locations like China and Japan now quite reliable, unlike ever before. Albeit, very distant stations like Radio Peking still had multi-hop flutter but what a signal they delivered! Distant stations also began to share facilities to improve reception of broadcasts from other nations than their own. For example, CBC Sackville served as a shortwave portal to North America for Japan, China, Viet Nam, Germany, Korea

and the BBC.

So many stations that were old friends to DXers have now faded away. I recall creating a schedule for myself, jumping from one shortwave broadcaster to another to entertain me while I completed after-class school studies. There was Swiss Radio International, Radio Nederland, Deutsche Welle, RAI Italy, Radio Cairo, Kol Israel, Norway, the Vatican and endless other choices. The BBC, VOA and Radio Moscow were simply omnipresent. Now they are gone or rapidly fading far away.

Missing from most household shortwave radios from this age were digital frequency readouts. International broadcasters would cure this lack of accurate tuning by playing repetitious 'interval signals' to attract potential listeners just before the start of nightly broadcasts. A few of these still exist. Radio New Zealand International still airs the sound of their native bell bird between frequency shifts.

We are very thankful for historical recordings of these signals - most notably the comprehensive collection of Ian McFarland, a well-known radio host from Radio Canada International and Radio Japan. You can access these recordings at: <https://www.dxe.ca/index.php/our-stuff/40-ian-mcfarland-releases-3rd-cd-set-of-cds-20-years-of-sw-broadcasting>. Fascinating listening!



Ian McFarland.

Some stations literally fade away into history. When decades-old transmitters begin to fail and no replacement parts are available, broadcasters often opt to cease broadcasting and rely on more modern FM broadcasts or Internet streams. Transmitter site fires can end operations in an instant! Few companies still manufacture shortwave transmitters due to a lack of demand. This past March, the iconic GatesAir company announced they were discontinuing marketing AM

radio transmitters and focusing their business toward more viable products. How times have changed!

Back in the day, there was a group of stations on the 49 meter band relaying Canadian AM radio broadcasts to listeners in the distant outreaches of the wilderness. I fondly remember CFCX Montreal on 6005 kHz, CFRX Toronto 6070 kHz, CHNX Halifax 6130 kHz and dual CBC Radio relays on 6160 kHz from Vancouver, British Columbia and St. John's Newfoundland. You could also hear the dominant and unique 'CBC Northern Service' daily on 9625 kHz in many aboriginal languages along



with French and English. Many recordings of these CBC programs are now held as historical documentation of otherwise lost societies and languages.

All is not completely lost. A handful of international broadcasters can still be heard by savvy DXers. Most obvious are powerful signals from China Radio International, Radio New Zealand International, All India Radio and even the British BBC (if you know where to look for them.) Many, many repetitive religious broadcasters are out there, too. It must be noted that the eclectic and original WBCQ from Monticello, Maine still broadcasts really interesting programming on 5130, 7490, 9330 and 3265 kHz to the delight of many a surviving DXer!

The definitive guide to all remaining shortwave attractions is produced by the wonderful British DX Club. Their bi-annual 'Broadcasts in English' publication provides you with an hour-by-hour radio guide to all your shortwave radio may intercept. For full information regarding this gem, go to:

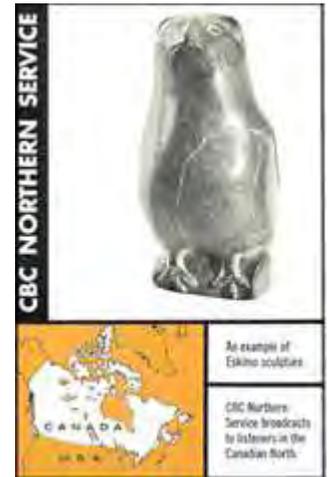
<http://bdxc.org.uk/bie.html>.

Enjoy Today's Listening

Wake up and smell the roses fellow DXers! Each and every station you strained to hear as a kid has now been replaced by a stunning perfect feed in beautiful stereo via the Internet. For months and years I lamented over the obsolescence of RF signals. I got over it! How amazing to be able to hear stations from all over the country on my car stereo or cell phone.

As an added attraction, I see station logos, song titles, sports scores and even up-to-date weather forecasts and precipitation maps in beautiful full color along with the audio program itself. Virtual 'stations' can be custom created to follow your favorite performers or music genres. You can find yourself listening to exotic music via Radio Cook Islands in the South Pacific while sitting in traffic on I-95 in Greenwich, Connecticut. Crazy!

Change is also obvious off the air. Two CBS mainstays have recently moved to new facilities to join new sister stations due to mergers and sales. WCBS 880 AM is now owned by Entercom, a large American broadcaster, due to a merger with CBS Radio. You will no longer find them at the landmark CBS Broadcast Center



CBC Northern Service QSL.

on West 57th Street. They are now resident in an Entercor building at Hudson Square in Lower Manhattan. Adding to this adjustment, WCBS unveiled a new logo and on-air audio sounder package this past Wednesday, August 22.



Just today, August 25, 2018, another former CBS station, WBZ 1030 Boston has

inaugurated new studios in a multi-station facility of its new owner iHeart Radio (formerly Clear Channel Communications.)

WBZ used studios and offices at Soldiers Field Road in Allston-Brighton since 1947. They now join several other Boston stations across town in Medford.



New studio for Boston's WBZ

A New World

How you listen is changing rapidly, too. Shop today and you may be challenged to find old fashioned analog AM and FM radios in nearby stores. Why bother with fiddling with knobs and dials when you can simply speak to your speaker! Many people now check into their favorite station, audio stream or podcasts by using 'smart speakers' like Amazon's Echo voiced by 'Alexa', the Apple HomePod featuring 'Siri' voice command, Google Home with Assistant and dozens of others. Your choices have no bounds arriving from all around the world. All you have to do is say 'Alexa, play BBC Radio 5' and you are connected!



Amazon Echo smart speaker.

One of the strongest strategies for survival is the ability to adapt to change. The British DX Club's monthly bulletin 'Communication' features a monthly column by Chrissy Brand called 'Webwatch', suggesting amazing sources for listening every month. You'll find quite a few other journal entries like this if you surf the Web.

Also try the invaluable Radio-Locator, <https://radio-locator.com/> — a virtual phone book (remember those?) of searchable stations from all over

The screenshot shows the radio-locator website interface. At the top, it says "radio-locator" and "Find US here: stations by location". Below that, there's a search bar with "City/Zip: Port Austin" and "State: MI". A banner reads "MONETIZE YOUR ONLINE STREAM ...and earn more revenue for your station!". Below the banner, it states "There are 24 radio stations that may be within distant listening range of Port Austin, Michigan. (44° 02' 43" N, 82° 59' 40" W)". There are instructions for using the site, such as "Info: Click to get more information about a station or to submit a change." and "Bitcaster: Indicates that the station broadcasts its audio on the Internet." Below that, it says "Distances show the distance between the station and your location in Port Austin, Michigan." and "Find unlinked frequencies in Port Austin, Michigan." A table of results is shown below.

Call Sign	Freq.	Dist./Signal	City	School	Format
WCTE	88.5 FM	20.3 mi	DePue, MI		Gospel Music
WBMB	89.3 FM	24.8 mi	Harbor Beach, MI		Christian Contemporary
WIDL	92.1 FM	30.0 mi	Cass City, MI		Classic Rock
WYNN	96.1 FM	48.6 mi	Bay City, MI		Adult Contemporary
WJIM	106.1 FM	18.3 mi	Port Austin, MI		Soft Rock

Sample search for broadcast stations within range on Radio-Locator.com.

the country. Radio-Locator is a great jumping off place to quickly find streams. Also make sure you also acquaint yourself with the TuneIn app and web site where you will find stream access to the entire world. If you are wondering what people are listening to in Ulan-Bator, Mongolia, TuneIn can help you! The possibilities are endless.

Rest assured, the meek may indeed inherit the world of shortwave. As long as I can reach someone else out in the ether trying to make a CW contact on 30 meters I will be on-the-air sending CQ. Nothing will separate me from my straight key! The miracle of transmitting and being heard miles and miles away will continue, especially via amateur radio. In the meantime, I'll be streaming Radio New Zealand in my car!

If you want to keep in touch with the very latest in the world of shortwave listening and operating, please acquaint yourself with the encyclopedic web site SWLing.com (<http://swling.com/>) authored by Tom Witherspoon, K4SWL. Tom is an advocate towards saving the time reference stations WWV, WWVH and WWVB.



Tom, K4SWL

Enjoy and share your hobby while you can! Don't let us be the last generation of DXers! Until next month, 73 and dit dit from N2KZ 'The Old Goat.'



Experience EchoLink

-KD2ITZ

EchoLink® is a system that allows amateur radio operators to contact each other using the Internet for at least part of the path between them. It was designed by Jonathan Taylor K1RFD in 2002 and is distributed free of charge. According to [http://www.echolink.org/...](http://www.echolink.org/)

EchoLink software... allows worldwide connections to be made between stations, or from computer to station, greatly enhancing Amateur Radio's communications capabilities.

The protocol may be familiar to many readers of *PCARA Update*. In the March 2013 newsletter, Karl N2KZ wrote an excellent description of EchoLink. [Back-issues of *PCARA Update* are available at <http://home.lanline.com/~pcara/newslett.htm> -Ed.]



EchoLink diagram from Karl, N2KZ's article in March 2013 PCARA Update.

Not everyone speaks as highly as Karl does about EchoLink. There are numerous disparaging remarks on the Internet. Some critics, such as N8***, write that "EchoLink is not ham

radio." Others, including ND5***, defame its operators as "EchoLids." Another vocal opponent N5*** describes EchoLink enthusiasts as "parasites sucking the blood out of this fine hobby." The call signs above are truncated so as not to promote controversy. Instead, this article will try to present a balanced overview of the system, based on first-hand experience.

Many, who promote amateur radio as a fail-safe mode of communication, are wary of relying on Internet connections. Hams who do enjoy using voice over IP (VoIP) sometimes prefer to use alternatives, such as AllStar Link, which supports full duplex audio. Based on the numbers, however, EchoLink is the predominant player in this arena. According to their website:

There are more than 200,000 validated EchoLink users worldwide — in 151 of the world's 193 nations — with about 6,000 online at any given time.

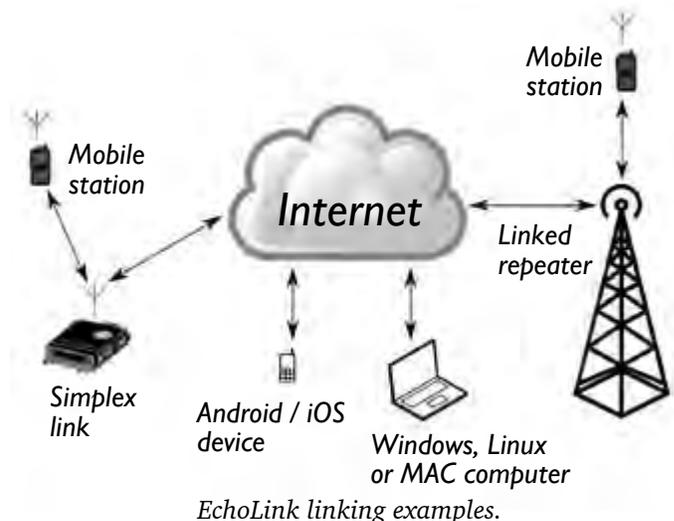
Part of the reason why there are thousands of operators who turn to EchoLink is that there are numerous ways to connect. EchoLink software is available for PC's running Windows, as well as phones and tablets running iOS and Android. Interestingly, there is

a new category of Android device, marketed as a **network radio**, with a built-in push-to-talk (PTT) button. Linux users can install SvxFlex and Qtel or even run the Windows EchoLink software with the assistance of compatibility packages such as Wine. Similarly, EchoHam is available for Mac OS X. All of these programs allow users to utilize their device's microphone and speaker to access EchoLink connections, called nodes.

EchoLink nodes are categorized into four groups: users, links, repeaters, and conferences. Users must prove they hold a valid amateur radio licence before they are allowed to connect to the system. Links are simplex connections to EchoLink. A transceiver, set to a simplex frequency, is connected to a PC using an interface that routes the audio and processes commands. The PC is connected to the Internet and runs the EchoLink software in Sysop mode. Depending on the configuration, connections can be selected directly using the PC or from afar by sending DTMF tones from a radio. Validated users receive a node number from EchoLink. Operators within range of the transceiver can access distant stations by entering command tones and node numbers from a radio that has DTMF capability. Local hams can use this simplex channel to converse with the distant stations that are connected via the Internet. Alternatively, the rig can be tuned to a pair of frequencies to match a local repeater. The PC user, running EchoLink in Sysop mode, denotes this connection with



The Inrico T320 is a 4G/WiFi Android phone with a dedicated PTT. It runs EchoLink and other VoIP software and is marketed as a network radio. <http://www.inrico.cn/>



EchoLink linking examples.

suffix -R to indicate repeater as opposed to -L for link. Lastly, conferences allow connections between users, links, repeaters, and even other conferences.

There are many ways to interface a transceiver and a PC for use with EchoLink. The system is compatible with the popular Signalink™ from Tigertronics and RIGblaster from West Mountain Radio. Some Kenwood radios are designed especially for EchoLink operation.

The Kenwood TM-V71 and TM-D710 contain a built-in PC interface and need only a pair of cables from the rig to the computer. The radios also store node numbers in a memory bank for rapid recall. The Kenwood TM-V71A is a popular VHF/UHF FM transceiver and has been reviewed thoroughly by Malcolm NM9J in the January 2008 PCARA Update. I have been using one for over two years and, recently, I tried operating it as an EchoLink node.



Signalink™ USB interface connects transceiver audio to personal computer using its own built-in USB sound-card.



EchoLink is a selling point for the Kenwood TM-V71A. (From QST ad, August 2018).

Two cables are needed to interface the TM-V71 to a PC. The cables retail for over \$50, but Kenwood provides detailed assembly instructions for those willing to build their own. The first cable exchanges data between the devices and controls the PTT. This cable connects to transceiver through the 8-pin mini-DIN female port labeled PC and it connects to the computer through the DE-9 male serial port (RS-232). Following

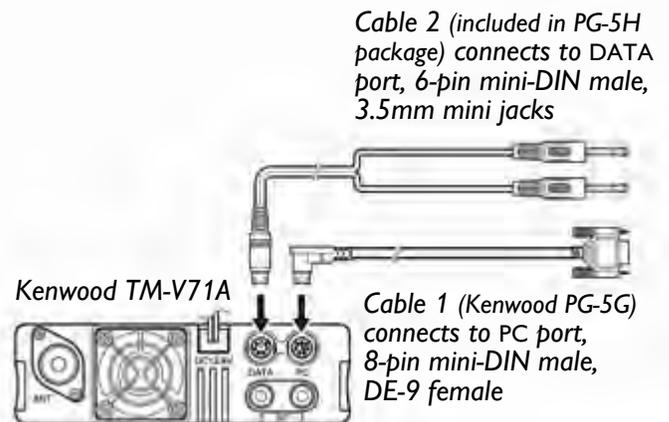
advice found on the “Kenwood TMV-71A/K/S” Yahoo! Group, I purchased a music-synthesizer controller-cable (Hosa DBK-103) and spent considerably less than the proprietary Kenwood equivalent (PG-5G). Of note to anyone who owns this or a similar Kenwood model, the cable allows users to program the radio’s memory banks using Kenwood’s free Windows software (MCP-2A).



Kenwood PG-5G PC programming cable connects 8-pin mini DIN socket on the back of a TM-V71A or TM-D710GA to 9-pin D-sub connector of an old-style PC’s serial port.

The second cable routes the audio from the TM-V71 to the PC.

This cable connects to transceiver through the 6-pin mini-DIN female port labeled DATA. Many PC users will recognize that the PS/2 port conforms to this standard. I mistakenly thought that I could repurpose a cord from a computer device. After dissecting several mouse and keyboard cables, I could not find one that utilizes the pins necessary to match the rig. Instead, I purchased 6-pin mini-DIN plugs on eBay and soldered the pins to three of the wires in a length of CAT-5 cable. The other end was soldered to two 3.5 mm mini jacks, which were plugged into the soundcard’s microphone input and line output.



Connecting the Kenwood PC interface cables.

Most modern computers do not include a DE-9 serial port to interface with the PG-5G cable mentioned above. A connection is often available on the motherboard to add one. Alternatively, USB to DE-9 adapters are available. Cluttering the corners of my home, I have several old computers that were factory equipped with DE-9 ports. My initial attempts to build the node were hindered by RF interference. I tried two separate desktop PC’s and various monitors, but the noise rendered the 2 meter band unusable. I was ultimately successful using an old Pentium 3 laptop with only 128MB

of RAM. I received good signal reports from Jared KD2HXZ who copied my audio both when it was sent from the airwaves to the Internet



Old-style notebook has built-in serial port with DE-9 male connector (arrowed).

and vice versa. We made EchoLink contacts on a 2 meter simplex frequency and the W2NYW repeater. The only drawback is that the first few seconds of the transmission are lost due to a software delay. Mindful users should leave a pause before they start speaking.

Undoubtedly, all readers own one or more devices that can run EchoLink software. Furthermore, many already own the hardware to build their own links. I encourage all amateurs to experiment with this system. Ever want to practice a foreign language or participate in a global tech net? By installing EchoLink's free software, hams can connect to nodes all over the world or monitor the repeaters in their own region. The WECA repeater (WB2ZII) and the LIMARC system (W2KPO) are just two of many local nodes. Amateurs are privileged to have access to so much spectrum, and can only maintain their rights if they use the allocated frequencies. Many have wondered how to increase activity on the UHF and VHF bands. Perhaps EchoLink is part of the solution?

- Lou, KD2ITZ

TYT TH-8600

Installation in Subaru Forester - KD2EVI

Finding a hand-held Baofeng® transceiver wanting, I decided to install a mobile radio in my 2011 Subaru Forester. I purchased a TYT® TH-8600 25 watt dual-band transceiver and a Comet CP-5 trunk/hatch mount along with a Comet SBB-1 antenna from Main Trading Company in Paris, TX, <https://www.mtrradio.com/>.

I chose the TH-8600 because of its price (\$110), small size (107 × 125 × 45mm), and low current requirement (4 amp maximum) such that it could be run from a ciga-



TYT TH-8600 144/440 transceiver.

rette lighter outlet, avoiding the complication of running power leads through the firewall to the battery and still have a good amount of output power if needed.



The TYT-8600 is a small radio, measuring only 4¼ × 5 × 1¾". [KD2EVI pic].

The radio — good points

While I have not spent a lot of time with the radio, I have programmed in active local repeaters and received good signal reports. The audio quality is also good. The nine frequencies programmed into the TYT are scanned in four seconds — while not the fastest scan speed, it is superior to a Baofeng handheld. The microphone is large enough and feels good in my hand. Radio volume, channel selection and more can be easily selected from the microphone.

The radio itself has a sturdy aluminum case and a cooling fan at the rear.

The 'Ham Radio 2.0' review of the TYT TH-8600 on YouTube (<https://youtu.be/-lvatRsd9Hs>) showed the maximum VHF output to be 21 watts as opposed to the 25 watt rating. The UHF output met the advertised specification of 20 watts. Low power was found to be 6 watts (5 advertised) on both bands and mid-power 11 watts on UHF, 10 on VHF.



TYT TH-8600 power output was 21 watts on 146 MHz when measured by Jason, KC5HWB of 'Ham Radio 2.0'.

The radio — not so good points

Not surprisingly for a low priced Chinese radio, the manual is poorly written and difficult to follow. Functions and abbreviations are often not explained. The radio has provision for a GPS input, but information on this function, especially its use in an amateur

radio setting, is lacking. I was unable to get the included programming software to open properly and had to program the radio manually.

The process of manual programming is not intuitive and is probably best done using the menu functions — the offset must be input from the front panel of the radio prior to selecting the CTCSS tone for a repeater. Compared to a Baofeng handheld, there are fewer steps to program a frequency into memory.

Mobile installation

The TYT TH-8600 easily fits in the cubby hole in front of the shift knob in my 2011 Subaru Forester. I bolted the radio into its mounting bracket on the bottom of the radio, securing the bracket to the vehicle with Scotch®



TH-8600 bolted into mounting bracket then secured to Subaru's dash opening with double-sided tape. [KD2EVI pics.]



Scotch indoor mounting tape.

double-sided mounting tape. The radio sits approximately 1" above the bottom of the cubby.

The supplied power cord was over 3 feet long and I cut and soldered the power cord to shorten it. A cigarette lighter plug was obtained from a vendor on Amazon and soldered to the end of the power cord.



TH-8600 power cord was soldered to an illuminated cigar lighter plug then connected to a nearby 12 volt outlet.

The Comet CP-5 antenna mount installation was relatively easy and I followed the advice of N2CBH, who wrote of his antenna installation in a prior issue of the *PCARA Update* [October 2015 –Ed.], tucking the coax underneath the plastic trim. I originally placed the mount on the driver's side of the vehicle, but found the coax length to be too short to route through the dash to



Comet CP-5M trunk lip mount.

the rear of the radio. Moving the antenna mount to the passenger side of the rear hatch gave me sufficient length to go through the dash. The opening behind the cubby was too small to allow the coax through, so I removed some plastic from the dash using a small rotary tool. The enlarged hole is not easily visible. I used a piece of steel measuring tape to "fish" the coax through the dash.

The Comet SBB-1 antenna works very well with its 2.15 dBi gain (440 MHz). My truck has a Tram 1185 magnet-mount antenna and cannot receive WECA's 147.060 repeater while sitting in my driveway, but the Comet SBB-1 can both receive and transmit to that repeater from the same spot.

Conclusion

Overall I am happy with the TYT TH-8600 and the antenna. I have a practical mobile radio that — while not as nice as my Icom IC-2730 — was easily installed and available for a low price.



Comet SBB-1 flexible, rubber-coated dual-band antenna with CP-5 lip mount, installed on Subaru tailgate.



TYT TH-8600 dual-band transceiver after completion of installation in Subaru Forester. [KD2EVI pic.]

- David KD2EVI

PCARA Foxhunt Rules

Saturday Sept 22, 2018

1. Transmission: FM simplex on 146.565 MHz, horizontally polarized.



2. Transmissions start at 3:00 p.m. for 5 minutes, followed by 5 minutes off. Second transmission commences at 3:10 p.m. 3 minutes on, 7 minutes off. The fox will not move during this time. This cycle repeats at 10 minute intervals until the last transmission ends at 4:30 p.m. when the fox will announce its location.

3. The opening transmission will include a time check for watch synchronization.

4. All contestants who wish to be eligible for a prize must book in at the **Beach Shopping Center parking lot***, in Peekskill before the start. Contestants will count as one team if more than one person occupies a car. (i.e. if three in a car, they don't get first, second and third prize.)

* on the far west side of the Shopping Center, near Jo-Ann/CVS.

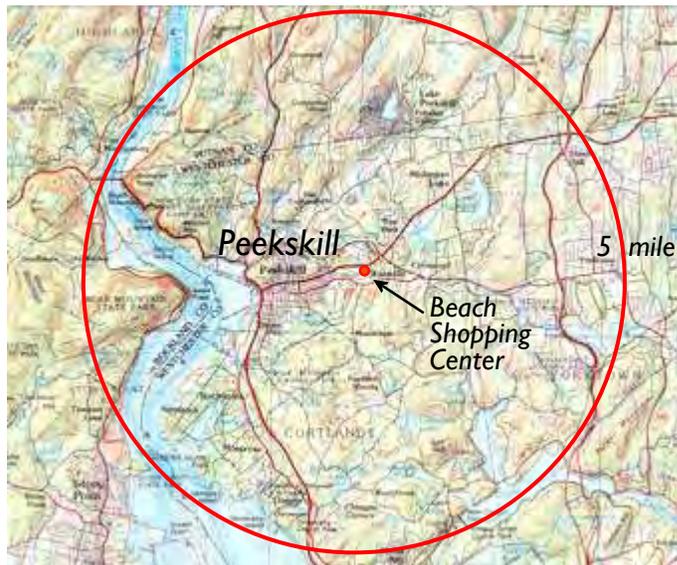
5. No contestant is allowed to move his/her car until the end of the first transmission, so take your time with the first bearing and make it a good one. The transmission will be audible from the start without a super-sensitive receiver.

6. Radio silence will be maintained by all contestants on all frequencies from the first to the last transmission.

7. No excess mileage penalty will be incurred but all contestants are reminded at all times to stay within the law and observe speed limits, parking restrictions etc.

8. The fox will be hidden not more than 5 miles from the start. The location of the fox will not be on property which is inaccessible by car.

9. Upon a contestant finding the fox, please do not shout or in any way give the location away to other contestants. Report your name/callsign to the fox and retire to the place of refreshment immediately. This will ensure that other contestants do not discover the fox because a group of people is hanging around nearby. It is requested that you maintain radio silence



The fox will be hidden within 5 miles (red circle) of the starting point at the Beach Shopping Center.

even though the fox has been found and the fact that you have found the fox should not be revealed to anyone until the place of refreshment has been reached.

10. The first competitor to locate the fox and positively identify him/her will be presented with a certificate. This competitor will be invited to assume the role of fox for the next foxhunt event.

11. Competitors should convene from 4:30 p.m. at the place of refreshment, which will be announced on-air by the fox.

Rules adapted from Bury Radio Society Fox Hunt – Malcolm, NM9J

Household recycling

Westchester County will be holding a Household Recycling Drop Off Day on **Saturday October 13**, at FDR State Park, from 9:00 a.m. to 3:00 p.m. Items accepted include "Electronic waste" such as computer monitors, towers, peripherals, printers, TVs, faxes, radios, stereos and speakers. Batteries can also be handed in, including automobile, rechargeable, non-rechargeable and button cell batteries. Acceptable items containing mercury include thermometers and thermostats, fluorescent light bulbs and CFLs.

Additional Drop Off Days in 2018 will be on Saturday September 29 at the Material Recovery Facility, 15 Woods Road, Valhalla, NY and on Saturday November 3 at Rye Playland. For further details, see:

<http://www.townofcortlandt.com/cn/news/index.cfm?NID=46935&jump2=0>

The Household Material Recovery Facility in Valhalla is open by appointment on a year-round basis. See: <http://environment.westchestergov.com/facilities/h-mrf>

Essential₂ hanging

Hang about

Hand-held press-to-talk microphones that hang from a hook are often supplied with transceivers from Icom and Kenwood. Yaesu radios tend to use a different type of microphone with a round “button” on the back which drops into a matching spring clip.



Icom ‘hang-up’ microphone with supplied hook.

Sling your hook

Do you have one or more radios with a hang-up microphone that has lost its original mounting hook? Perhaps the original hook disappeared, or lost its adhesive or was left behind in a previous vehicle?



Scotch Mounting Tape

If you still have the original hook, you could replace the adhesive pad with a length of double-sided sticky tape. For a brief history of adhesive tape and the role played by 3M in its development — including double-sided mounting tape — see “Essential₂ sticky”, PCARA Update, December 2007. Be aware that double-sided tape may cause significant damage when you try to remove it from a wall or painted surface.

Command performance

Another suggestion would be to use one of the removable “damage-free” adhesive hooks available under 3M’s Command™ Brand and from generic manufacturers. Their main characteristic is use of



3M Command™ Brand Damage-Free Hanging hooks.

a specialized adhesive tape to secure the plastic mount to a smooth surface. When the hook is no longer required, the mount can be removed by pulling vertically on the protruding tab which appears above or below the mount, leaving no residue behind.

The specialized adhesive strip used in these products takes the form of a high performance, polyethylene foam tape, which is coated on both sides with a pressure-sensitive adhesive. The mounting surface — wall, window, shelf or cabinet — must be cleaned with isopropyl alcohol (rubbing alcohol) before the adhesive strip is applied. Once the dirt and grease have been removed, the alcohol soon evaporates, leaving no residue to interfere with adhesion. The strips have strong holding power up to a temperature of around 120°F.

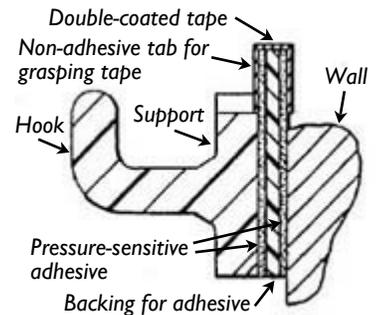
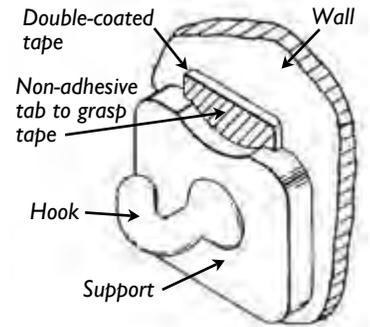


3M Command Brand wire hook is removed by stretching the non-adhesive pull-tab section vertically downward.

As the tape is stretched, it slowly releases the adhesive and attached hook assembly from the wall, without leaving any residue on the surface of the wall.

Which hook?

I carried out a short survey of available mounts to see which would work best with several Icom and Kenwood microphones. Best results

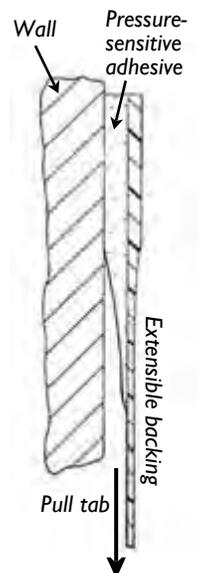


Perspective and cross-section views of a 3M removable plastic hook. [After U.S. Patent 5,516,581.]

As the tape is stretched, it slowly releases the adhesive and attached hook assembly from the wall, without leaving any residue on the surface of the wall.

A non-adhesive section of stretchable pull-tab is incorporated into the double-sided tape, which allows clean, damage-free removal from most surfaces.

As the tape is stretched, it slowly releases the adhesive and attached hook assembly from the wall, without leaving any residue on the surface of the wall.



As the tape is stretched, it releases the adhesive.



HyperTough™ hinged removable adhesive hooks from Walmart.

holding 0.5 lb, where the hook is part of the molded plastic mount. You may need to bend the hook away from the mount slightly to clear the microphone hanger.

No doubt you can think of additional applications for these removable hooks — such as hanging calendars, certificates, GMT clocks, maps and QSL cards in the radio shack. The plastic mount is usually colored white, but clear plastic and metallic finishes are also available. 3M does *not* recommend their Command products for use in automobiles because of the high temperatures that can occur when a vehicle is left in sunlight. These temperatures can exceed 120°F, sufficient to release the pressure-sensitive adhesive.

- NM9J

Special Event Station

On Sunday August 26th, PCARA organized a Special Event Station in the grounds of the John C. Hart Memorial Library, Shrub Oak, NY to commemorate the 230th birthday of the Town of Yorktown.

A little history

During the 18th century, settlers were moving into the **Middle Ward** of the **Manor of Cortlandt**, previously established by Stephanus Van Cortlandt and

were obtained with Walmart's own brand "HyperTough™" Hinged Removable Adhesive Hooks, capable of holding 1 lb. Unlike some other types, this model's metal hook tends to stay in place, gripped firmly in the plastic mount as the microphone is lifted off, even if the hook hits the bottom of the microphone hanger. Another hook which worked well was the 3M Command brand general purpose Mini Hook, capable of



Icom HM-98 MIC hangs on a HyperTough hook.



Detail from Thomas Jeffrey's 1776 map of New York and New Jersey showing the extent of the Manor of Cortlandt.

granted a Royal Patent in 1697. The middle area was originally named **Hanover**, after the House of Hanover which ruled Great Britain and its thirteen colonies at the time. The main hamlet, named **Crompond**, was located at the intersection of what is now Crompond Road (Rt. 202) and Old Yorktown Road (Rt. 132).

During the Revolutionary War (1775-1783) the Presbyterian Church located at the Crompond Road intersection was used as an arsenal for captured weapons. In June 1779 both church and storehouse were destroyed by British troops. Two years later in 1781, loyalist forces attacked American forces guarding the river-crossing near Davenport House on Croton Heights Road. This is known as the Battle of Pines Bridge.

After the Revolutionary War ended, Governor George Clinton and the New York legislature enacted in March 1788 "An act for dividing the counties of this State into towns". The county of Westchester was divided into twenty towns, with four full townships created from the Manor of Cortlandt. They were named 'Cortlandt', 'Yorktown', 'Stephentown' (now 'Somers'), and 'Salem'.

The area previously known by the English name of Hanover was renamed **Yorktown** in commemoration of the Battle of Yorktown, VA— where forces of the American Continental Army and French Army overcame the British in 1781, in the last major action of the Revolutionary War.

Back to the present

On Saturday evening, August 25th, 2018, a small party from PCARA arrived at the John C. Hart Memorial Library to string support lines over tall trees in the library grounds. This was accomplished using Charles N2SO's pneumatic



Charles N2SO launches a line over one of the library trees.

launcher along with a portable compressor from Lou KD2ITZ.

Sunday set-up

On Sunday morning, August 26, after several members had returned from Candlewood ARA's Ham-fest, members began gathering at the John C. Hart Library for antenna raising and station setup. Charles N2SO had brought along a new Buxcomm Windom

(OCFD) wire dipole. This antenna has wire lengths of 45 feet and 90 feet with a 4:1 balun at the feed point and coaxial cable down to the transceiver.



Buxcomm OCFD Windom antenna with 4:1 balun at the off-center feed point.

Support ropes had already been launched over two high trees 150 feet apart — but unfortunately the path between them crossed over several lower trees which made antenna raising difficult. By pulling the antenna back and forth with lengths of masonry twine, the dipole wires were eventually persuaded to rise above the troublesome branches, leaving the coaxial feed descending into the parking lot below.

Stations were set up under Charles' large Coleman shelter — location was decided by the end of the descending coaxial cable. Club signage and publicity material were positioned nearby while the transceivers were set up on two tables under the shelter.



Lou KD2ITZ, Jared KD2HXZ and Charles fasten the PCARA vinyl sign to supports near the shelter.

Mike W2IGG had brought along his Yaesu FT-857 transceiver running off a large 12V battery for HF SSB, Charles had his Elecraft K2 with internal battery for HF CW and Jared KD2HXZ brought his "Go Box" with Yaesu FTM-100D for VHF/UHF, running off a wire J-Pole supplied by W2IGG.



Charles N2SO sets up his Elecraft K2 transceiver under the Coleman shelter.

Start time

By 1:00 p.m. the temperature had warmed up to 80°F and the three stations were ready to go. Unfortunately, problems became apparent with the OCFD (off-center fed dipole) antenna.

SWR was poor and the antenna did not seem to be transmitting or receiving efficiently. As a temporary fix, Bob N2CBH rearranged the coaxial feed so that inner and outer conductors were strapped together then fed against ground, with a counterpoise wire radial laid across the grass. This arrangement tuned up satisfactorily as a vertical antenna and, despite the poor conditions, allowed a limited number of contacts on 40 meters and 20 meters. Best DX was three stations from KØ, operating in the Tenth Anniversary Kansas QSO Party.



Bob N2CBH makes adjustments to the HF SSB station antenna.

Mike W2IGG decided to improve matters by pulling up his portable HF antenna. Charles N2SO launched another line over a nearby tree, then pulled up a stronger rope to support Mike's lightweight Pack-Tenna antenna system. This inverted-Vee antenna had a low SWR, suitable for use on 40 meters without a tuner.

Maximum publicity

The Special Event Station enjoyed plenty of visitors thanks to excellent publicity arranged by Lou KD2ITZ. The Library was pleased to accommodate us and featured the event on their illuminated sign along-

side East Main Street. Hudson Division Director Mike Lisenco N2YBB had been informed about the event and made it the headline for his August 23rd email message: "It's Time For Weekend Update — Peekskill Cortlandt Style".

At 2:00 p.m. an anniversary parade made its way from Lakeland High School along East Main Street, past the Library on the way to the Lakeland Central School District office. Crowds lined the street as the Library corner was also the point for official viewing and public address.



Crowds lined East Main Street in front of the library for the parade celebrating Yorktown's 230th birthday.

The Lakeland Deli across the street proved to be another attraction — as well as providing lunch for several members. Many of our visitors to the Special Event Station were existing radio amateurs from the Yorktown area who came by to see what was going on and to familiarize themselves with PCARA's activities.



Bob N2CBH explains PCARA's activities to visitors to the Special Event Station.

Tear down

At 4:00 p.m., the three stations were dismantled, the shelter was packed away and the antennas were brought down. Unfortunately the OCFD antenna which



The Special Event Station was located under shady trees in the parking lot of the John C. Hart Memorial Library in Shrub Oak.

had been so difficult to erect proved even more awkward on the way down. While multiple helpers were guiding the wires past branches of the lower trees, your editor accidentally released a bundled rope which promptly ascended into the large walnut tree. This rope refused to budge until Mike W2IGG pulled the rest of the antenna down to ground level then tugged on the supporting rope — the mighty tree finally relented and released its grip.

Thanks for your support

Thanks to all members who helped set up and operate the station including Lou KD2ITZ (accompanied by Vincent), Mike W2IGG, Charles N2SO, Al K2DMV (Saturday evening), Greg KB2CQE, Jared KD2HXZ, David KD2EVI, Bob N2CBH, Joe WA2MCR and Lovji N2CKD.

Thanks also to visitors who came by to set up, operate and hear about PCARA activities including Tom WB2NHC, Bob AA2DM, Francis K2UZE, Lew KD2IBT, Tom KD2JUH, Jan LA1ZN, Larry N2LH, Jay NE2Q, Craig W2PDX, and Stan WA2NRV. Also thanks to Pat from the Library and Todd from Parks and Recreations who looked in to make sure we were well looked after.

- 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 Update Editor: Malcolm Pritchard, NM9J

E-mail: NM9J 'at' arrl.net

Newsletter contributions are always very welcome!

Archive: <http://home.lanline.com/~pcara/newslett.htm>

PCARA Information

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

Organization. PCARA meetings take place the first Sunday of each month* at 3:00 p.m. in Dining Room B of NewYork-Presbyterian/Hudson Valley Hospital, Rt. 202, Cortlandt Manor, NY 10567. Drive round behind the main hospital building and enter from the rear (look for the oxygen tanks). Talk-in is available on the 146.67 repeater. *Apart from holidays and July/August break.

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

Sun Sep 9: PCARA meeting, NewYork-Presbyterian /Hudson Valley Hospital, 3:00 p.m. Visit from Mike Lisenco N2YBB on ARRL and upcoming Hudson Division election.

Sat Sep 15: PCARA VE test session, John C. Hart Memorial Library, Shrub Oak. 11:00 a.m.

Sat Sep 22: PCARA Breakfast, Turco's, Yorktown Hts. 9:00 a.m. Visit from Ria Jairam N2RJ on upcoming Hudson Division election.

Sat Sep 22: PCARA Fall Foxhunt, 2:30 for 3:00 p.m. start, Beach Shopping Center, Peekskill.

Hamfests

Sept 22-23: World Maker Faire, NY Hall of Science, Queens NY.

Sun Oct 7: Hall of Science ARC Hamfest, Queens NY, 9:00 a.m.

Sat Oct 13: Bergen ARA Fall Hamfest, Westwood Regional HS, 701 Ridgewood Rd, Township of Washington, NJ. 8:00 a.m.

Sun Oct 28: Mt Beacon ARC Fallfest, Employee Recreational Building, 83 Red Schoolhouse Road, Fishkill, NY. 8:00 a.m.

VE Test Sessions

Sep 9: Yonkers ARC, Will Library, 1500 Central Park Ave, Yonkers NY. 1:00 pm. Pre-reg. John WB2AUL, (914) 969-6548.

Sep 13: WECA, Westchester Co Fire Trg Center, 4 Dana Rd., Valhalla, NY. 7:00 p.m. S. Rothman, (914) 949-1463.

Sep 15: PCARA, John C. Hart Memorial Library, 1130 E Main St, Shrub Oak NY. 11:00 a.m. Contact Mike W2IGG (914) 488-9196.

Sep 17: Columbia Univ ARC, 531 Studebaker Bldg, 622 W 132nd St, New York. 6:30 pm, Alan Crosswell (212) 854-3754.

Sep 21: Orange County ARC, Munger Cottage, 183 Main Street, Cornwall NY. 6:00 p.m. Contact Joseph J. DeLorenzo (845) 534-3146.



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