

PCARA Update



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Back to work

We had an excellent turnout for the September 2015 meeting, including some new faces. Everyone seems to have returned from the summer recess re-energized, ready to get back to work, and work is what we have waiting for us.

The **35**th **Annual Harry Chapin Run Against Hunger** is on October 18, 2015 in Croton-on Hudson,



NY. PCARA will be providing communications support for the event. This will be the focus of the October meeting, planning and discussing logistics in detail for the day's activities. In order to provide adequate coverage we need members! If you have some time to share and want to help, **please** let us know at:

mail'at'pcara.org. For more detailed information about the 35th Annual Harry Chapin Run Against Hunger please visit http://www.runagainsthunger.org. Thank You!

On the repeater front, both of the Yaesu Fusion DR-1X 144/430 MHz Dual Band C4FM Repeaters are undergoing evaluation. The units as they stand are not yet suitable for replacing PCARA's existing analog FM repeaters without additional equipment and modification. The additions would include external controllers and cabling to permit seamless simultaneous analog and digital operation. Without modification the units are still excellent for use as emergency backup and for temporary portable repeater operation, on either of the two bands, any frequency.

The 449.925 MHz repeater antenna upgrade project is still progressing. Everything is on hand, we're just awaiting the opportunity for all parties involved to coordinate their schedules to complete the task. The goal is in site! Thanks to everyone for their patience.

Upcoming Hamfests include the Bergen Amateur Radio Association Fall Hamfest on Saturday, October 10, 2015 at Westwood High School in the Township of Washington, Bergen County, New Jersey. For more information please visit the BARA website at: http://www.bara.org/hamfest/.

The New York QSO Party is on Saturday, October 17, 2015 starting at 10:00 am EST. PCARA is sponsor-



PCARA members at Mount Beacon ARC Hamfest, Sept 19. L to R: W2CH, KC2NKU, KB2CQE, KB2VJP & N2EAB.

ing two plaques, "NY Multi-One Low Power" and "Non-NY SSB Low Power". For more details please visit: http://rdxa.com/ny-qso-party/. For more information regarding PCARA participation, please contact Joe, WA2MCR.

Our next regularly scheduled membership meeting will take place on October 4, 2015 at 3:00 pm at New York-Presbyterian / Hudson Valley Hospital in Cortlandt Manor, NY. I look forward to seeing each of you there.

- 73 de Greg, KB2CQE

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Net night

Peekskill/Cortlandt Amateur Radio Association holds a weekly net on the 146.67 MHz W2NYW repeater on Thursdays at 8:00 p.m. Join net control Karl, N2KZ for news and neighborly information.

Adventures in Dxing-N2KZ

A Perfect Day

What a beautiful day. Not a cloud in the sky and such a nice cool breeze. My wife, Stacey, suggested that we go biking to Jones Beach starting from a park in Wantagh along Great South Bay on Long Island. A great idea! Let's go!

While I was loading the bicycles, I remembered that Wantagh was right near to the home of my good friend, Bob Myers, K2TV. Both my wife and I worked with Bob at CBS Television years ago. Bob truly is my Elmer. His encouragement and knowledge changed my life. His smiles always fueled my progress. He gave me direction and I happily followed.

Years ago, at a library fair, I purchased a Heathkit DX-20 transmitter and brought it back to life. I knew that this model was Bob's very first rig as a ham. I always wanted to give it to him in person to thank him for all he has done for me. Today was the day!



Heathkit DX-20 transmitter covered 80-10 meters, CW only.

I packed up the DX-20 and gently put it in my back seat. I touched base with Bob on the phone and we met about an hour later. What a moment it was! A long time had passed since Bob and I had seen each other and the smiles never stopped. When

Bob saw what was in the box, he smiled too. "My first rig! I can use it with a straight key!"

We had a lot of catching up to do. My wife and I had never met Bob's wife, Marge. All the old stories and all the new news made for a great time. Bob took me upstairs to see his amazing shack. The walls were lined with 'wallpaper' — a phenomenal collection of awards and keepsakes from decades in the hobby.

Bob is quite an accomplished DXer with 353 countries verified, an 8 band DXCC, worked all states, worked all continents, worked all zones and it goes on and on. I really appreciate Bob's awards, knowing that many of them were accomplished on CW. His most cherished item was a golden memento of Bob's on-air stint as W1AW/2.

There are great stories in his equipment, too. Bob's main rig is an Icom IC-756 PRO II which began its career as part of a DXpedition before finding its way to Bob's shack. A nifty 10-15-20 tri-bander beam tops his roof along with a 6 meter Yagi. A center-fed Zepp takes him everywhere the other antennas won't! Bob enjoyed the fact that his collection of equipment was so diverse. Each and every item had a story and lots of the gear



Bob, K2TV in his well-equipped shack at Copiague, LI.

did not match anything else. The sign of an established and seasoned ham! Make sure you visit the K2TV web site, http://www.qsl.net/k2tv/ for all the details about Bob's amazing shack and ham radio career.

There is no shortage of hams in Bob's neighborhood. Bob's wife Marge is KA2NIE. Bob's next door neighbor is John, K2IZ. He has a tri-bander beam, too! I often kid Bob about RF exposure in his driveway. A K2TV/K2IZ QSO could be completed using dummy loads for antennas! Amazingly, the two of them don't often interfere with each other.

As my wife and I were leaving and saying our 'goodbyes,' Bob introduced us to another member of his ham radio community. He mentioned to me that his across-the-street neighbor was once a kid actor in the old Our Gang comedy shorts. Some people know these films as 'The Little Rascals.' Almost on cue, Bob calls across the street to a gentleman walking into his house: "Hi, Neighbor!"

I didn't immediately understand the *double entendre*. My wife and I were about to meet Jerry Schatz, known professionally as Jerry Tucker. Some people know him as W2MFW! Jerry's signature episode of the Our Gang comedies is actually called 'Hi, Neighbor!' featuring him as the new rich kid in town. In the clip

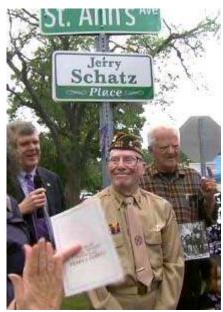
from 1934, Jerry is the envy of all the other kids. He had a cute blonde girlfriend, an attractive ridein fire engine and all the money in the world! You can watch it



Hi, Neighbor!

at: www.youtube.com/watch?v=2WODLbYBinQ.

From the moment we met him, we could tell that



On June 16, a portion of St. Ann's Avenue in Copiague LI was renamed to honor former child star and Navy veteran Jerry Schatz, W2MFW.

Jerry was someone special. Bob brought my attention to the street sign we were standing next to declaring that this part of St. Ann's Avenue is actually known as Jerry Schatz Place. The Town of Babylon recently honored Jerry for his remarkable life of achievements last June 16th and a street sign now marks the event!

After his years appearing in Our Gang comedies, Jerry was featured

in movies starring Shirley Temple, Buster Keaton, Carole Lombard, Spencer Tracy and even Laurel and Hardy — a total of more than 80 films! He also found himself voicing recurring characters in weekly radio plays. In 1942, Jerry gave it all up when he enlisted in the Navy but was later injured when a kamikaze fighter struck his ship.

By 1944, Jerry had left the Navy, gotten married to his wife Myra (who was licensed as WA2FIW) and began studying electrical engineering at SUNY Stony Brook and Empire College. He was hired by RCA Global Communications in New Jersey and had a long career as an engineer while he earned his Advanced Class amateur license. When he retired in 1981, he was asked why he was retiring so early at age 55. It really made sense to Jerry! He had started working when he was only 5!

Jerry has an amazing gift of being gracious and jovial. He is happy and humble and filled with delight about being alive at the remarkable age of 90 years old. We only spoke to Jerry for about 15 minutes, but his stories were joyous. All the adventures in show business, on the sea in the Navy and at RCA could fill several books. What an amazing life!

I was really thrilled to meet him. Never in a million years did I ever think I would meet one of the Little Rascals! I loved that series when I was a kid!

Could the day get any better? Yes. After we said goodbye to Bob, Marge and Jerry, my wife directed us to The Jones Beach Bikeway that begins at Cedar Creek Park in Wantagh, adjacent to Great South Bay. What a remarkable ride. The path leads from the park and runs south along the Wantagh Parkway down past the Jones

Beach Theatre, Zach's Bay and the iconic Jones Beach Water Tower. We made our first stop at the East Bathhouse and eventually traveled further east to Tobay Beach.

It was a perfect day, with plenty of sun and low humidity with temperatures in the mid 70s. All and all, we biked a total of about 18 miles

round trip.



Jones Beach, on Long Island's south shore.

Jones Beach always reminds me of my years in college. Looking for a remote place to study undistracted, I used to sit in the parking lot of West End 2 in the sun for hours at a time off season during the school year.

Jones Beach parking lots actually included a pretty good distraction: Just a few hundred feet from ocean's edge, the ground wave reception on medium wave was simply spectacular. I remember hearing AM radio stations all up and down the Atlantic Coast on my analog pushbutton TRF car radio in broad daylight. I always wanted to try my luck after dark, but Jones Beach closes at dusk!

Believe it or not, my wife and I experienced very little traffic coming home. We arrived home at about 7:30 pm just in time to unload the bikes, unload the car and get ready to host the Thursday night Old Goat's Net! I can't imagine a day with more ham radio! "Good evening and welcome to The Old Goat's Net. This is N2KZ... What a day!

A New Net?

The PCARA Old Goat's Net has now been on the air for nearly eight years! Our club is always trying to improve our events and encourage enjoyment of amateur radio. We are about to begin an upgrade of our UHF repeater KB2CQE/R on 449.925 MHz. The current Diamond antenna will be replaced by a new professional-quality Super Stationmaster vertical. This should be a substantial improvement in reliability.

Along with the antenna improvement, the gang on the weekly Old Goat's Net and I have been discussing the possible establishment of a weekly technical net to be held on the 449.925 MHz repeater.

Join in the discussion and decision!

Join us on the Old Goat's Net on Thursday nights at 8pm on the PCARA two-meter repeater at 146.67 MHZ, -600 kHz offset and a 156.7 Hz PL. Until next month, see you on the air and 73 de N2KZ 'The Old Goat.'



Mobile radio installation

creates new challenges - N2CBH

New arrival

We had a blessed event of sorts this past month. No! We are already grandparents at this point. It was the arrival of a new car. The 2001 Jeep had given me good service but it was time to step up to something



new. I decided on a 2015
Subaru Forester. We have had two Subaru cars before, both of which gave us good service and had amateur radios installed in them — as did the Jeep. That

2001 Jeep Cherokee was likely the last vehicle we will have owned that had a true under-the-dash installed radio. In fact it had two. In addition to the Yaesu FT-8800 2 meter/70 cm mobile radio there was also a Kenwood TS-50 HF radio. Believe it or not if fit under the dash too!

One thing to consider before installing a new radio is consulting the vehicle manufacturer. At one time GM, Ford and Chrysler — the American big three — used to publish handbooks on the proper installation of aftermarket electronics in their vehicles. In fact I can remember a time when all three manufacturers exhibited at Dayton Hamvention® to show the new models and to give some tips to radio amateurs on how best to install radio equipment in their cars. I tried this with Subaru but they do not publish such a document. You may have better luck with your vehicle manufacturer so I urge you to inquire anyway.

No room, dash it

The new 2015 Subaru has a modern dashboard with no real radio possibilities under the dash. I



YSK-8900 separation kit for the Yaesu FT-8800R

decided it was time to order the separation kit for the FT-8800 which is supplied with a plastic bracket for sliding the separated remote head onto. In addition, there is a 20 foot long 6-conductor remote cable, terminated with RJ-11 phone company-style connectors. This cable interconnects the main radio chassis to the head. One more cable is supplied with a male-tofemale two conductor 1/8"

mini-jack, for connection to an external speaker.

The microphone, which connects to the head, needed a mount and I opted to re-use the Lido plastic mount from the previous installation with a slightly different mounting approach. More on that later. [See http://www.lidomounts.com/hamradiomounts.html and "How to mount a mobile" by N2CBH, *PCARA Update* November 2009 –*Ed.*]

Rack of Larsen

The antenna would be the same Larsen NMO mount dual-band antenna taken from the Jeep. I purchased a new Diamond luggage rack mount for the

Larsen antenna. The Larsen dual-bander had been on a lift gate mount on the Jeep, with the mount positioned at the top of the rear gate. Unfortunately Subaru's lift gate design does not allow for this type of mount so I opted for the luggage rack. This mount is actually an improvement in that it has a thumbscrew arrangement for folding the antenna over when not in use or when entering a limited height area.



Diamond K515 NMO luggage rack mount.

Heads up

So now I had all the necessary parts for the installation. Still to be considered was where to mount the radio head and microphone. The radio body itself is mounted under the driver's seat. After trying some "eyeball" placement of the head I decided that the center console lower half would be the best location for several reasons. The head fits neatly at the rear of the opening, which is in front of the shifter. There is still



Bob mounted the FT-8800 remote head and microphone (arrowed) in the lower half of the Subaru center console.

room in front of the radio head to place items intended to be stored there such as pens, cell phone, etc. To securely mount the head I used the plastic slide-in bracket supplied in the separation kit and some scrap aluminum to fashion a bracket that would allow the head to tilt up at a 45° angle for easy viewing and operation of the knobs and buttons. The metal mount was fashioned out of a flat piece of .069" thickness aluminum and bent into shape using an inexpensive Harbor Freight bending brake. Two 5/32" holes were drilled in the aluminum to secure the aluminum to the plastic bracket with two #6-32 screws. By the way, those 6-32 screws, lock washers and nuts were the only hardware used for the entire installation except for the items supplied with the Diamond antenna mount.

Extreme mounting

The assembled head assembly was secured to the bottom of the console opening using a 3M product called Scotch™ Extreme Fasteners. This stuff is similar



Scotch™ Extreme brand heavyduty reclosable fasteners are stronger than Velcro and stay attached even when wet or dirty.

to Velcro but is designed to hold more weight than the typical Velcro strip. The claim on the back of the box is that it holds up to 10 lbs. It goes on to say that one inch of the product holds up to 2 lbs. I guess this means that 5 inches of product holds up to 10 lbs. I used approximately 4 inches of the stuff to hold the bottom of the "Lazy-L" shaped bracket to the floor of the opening. This material cuts easily with scissors and sticks to

most smooth surfaces very securely. It is similar to the material given to you by New York State when you are issued an EZPass®. Of course you need to install the cables first because once the head is mounted you don't have access unless you separate the strips.

I did not want to remove the head again once it was placed even though you could do it if needed. To install the head I simply cut two strips to the length I needed and stuck them together. Then peel off the adhesive protection and stick to the mounting bracket. Next peel off the other adhesive protection strip and carefully mount the piece where you want it. Care should be taken to place the item where you want it the first time or the adhesive may not be able to secure the item as intended. No matter, if this happens you have 4 linear feet of 3M material so you can try again if

you make a mistake.

The photo below shows the final placement of the head. I wish that I could say that very precise measurement and careful planning went into the position, but I just got lucky the first time! I bent the bracket into an approximate angle hoping that this would be the proper viewing angle. It turned out to be the case. The dimension of the head was just right to slide the entire assembly to the rear of the opening. The cables coming out are not crushed or strained in any way. The separation cable peels off to the left and is tucked under the console trim and routed under the seat for connection to the radio body. The microphone cable is routed to the right and I opted to use a previously-installed Lido brand plastic microphone mount with another strip of Scotch Extreme Fastener to secure the microphone bracket to the side of the console, facing the passenger side of the vehicle. It is within easy reach of the driver and is not in the passenger's way.



Close-up of the FT-8800R remote head, mounting bracket and microphone, fixed to the Subaru Forester's center console with Scotch Extreme fasteners. [Pic by N2CBH]

Like water off a back duck

Next I worked on mounting the antenna. I chose the rear of the vehicle because I wanted to bring the cable in through the lift gate opening. I realized later that this might be the optimum location as the AM/FM

radio antenna is mounted rear-center roof. The car radio antenna resembles a rubber duck. Since I wouldn't be listening to the broadcast radio while operating, I decided it wouldn't be a



Subaru AM/FM 'duck' antenna located at the back of the roof.

real problem — but you should consider antenna placement according to your own operating style. After some tests using the radio at low power first and then progressively higher power, with the broadcast radio turned on, there appeared to be no real interference or



Larsen dual-band antenna on Diamond NMO mount, attached to Forester's luggage rack. [Pic - N2CBH]

desensitization of the broadcast receiver. I was really amazed by this but it appears that I will be able to "have my cake and eat it too" as far as radio operation is concerned.

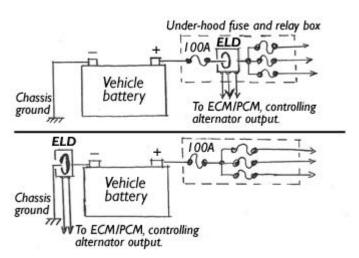
The antenna mount is supplied with RG-174 type cable which is very thin stuff. It works well though. There was just enough cable to reach the radio comfortably. I managed to hide the cable underneath the available plastic molding and under the rear

seat back, under the molding again and underneath the driver's seat. I did not have to use a screwdriver or any other tools to lift the molding out of place. That is another advantage to the skinny coax as it goes just about anywhere and hides away nicely.

Battery power

The only thing left now was the power cable for the whole setup. I considered this carefully after reading an article about new charging systems in automobiles that appeared in a recent *QST*. ['The Modern Mobile' by Alan Applegate, KOBG, *QST* May 2015 – *Ed*.] My standard installation of a two-way radio in a vehicle had always included a direct connection of the power wires to the battery terminals. This provides the lowest impedance path and therefore insures maximum power transfer to the radio. I personally never liked using the fuse panel or worse yet a cigarette lighter adapter. These connection methods tend to go bad over time as the connection becomes oxidized, causing problems.

When considering a direct-to-the-battery connection, modern cars have a new feature called an electronic load detector or **ELD** for short. What this sensor does is determine the load and therefore the charge rate to the battery. All load on the battery must be behind the ELD for proper operation. This means that connecting a mobile directly to both battery terminals may not be the best approach. I did some research and found that the majority of manufacturers now insert



Electronic Load Detector (ELD) monitors electrical load on the battery and improves fuel efficiency by reducing alternator output when the load is low. At top, the ELD is mounted within the under-hood fuse box, in the battery positive circuit. In the newer arrangement below, the ELD is in the battery negative lead, between battery terminal and chassis ground.

the ELD in the negative lead to the battery. They therefore recommend a direct connection to the positive battery terminal, with the negative wire from the radio

connected to the body of the vehicle — not to the negative terminal of the battery. Again the advice here is check with your vehicle manufacturer for correct connection.



Bosch electronic load detector (ELD) attached to the negative terminal of a recent Honda vehicle's battery.

Wire route

Routing the power cable is the next consideration. One thing Subaru did right was to provide a rather



Power cables pass through the firewall grommet on their way from Yaesu radio to vehicle battery. [Pic - N2CBH]

large removable grommet for cabling through the firewall. In the photo you will note the grommet reinstalled with the cable running through it. This is great because you can remove the grommet, punch a hole

through it, and run your cable to the approximate length you need, then reinstall it. This keeps you from having to get into odd positions in order to pull the cable through. I found attachment points to secure the cable both underneath the dashboard and in the engine compartment. I used a few tie wraps for this. Inside the vehicle I simply ran the cable under the dash and underneath some plastic molding to the radio. The only cable showing is about 3 inches where the cable comes out from underneath the rocker panel molding and underneath the driver seat.



Yaesu transceiver is mounted under the driver's seat, with power and antenna cables routed underneath the plastic molding. [Pic - N2CBH]

First contact

With the installation complete it was time to test things out. Before transmitting I connected my power meter — a Motorola field unit — and not one that my company manufactures. (I could have used one of ours



One of the RF power meters supplied by Broadcast Devices Inc.

but the Motorola unit is fine for a quick check of VSWR.) The match looked great on both bands so now I was ready to try things out. I started the vehicle before transmitting

because to be honest I wanted to see if the RF would have any effect on operation of the car. After a few checks listening to the receiver and brief transmissions on both bands, all seemed to be in order. My first contact was with Malcolm, NM9J joined shortly thereafter by John, N2NBR through the PCARA two meter repeater. Both stations reported good signal, good audio and the absence of alternator whine. In a word, yippee!

Speaker's corner

I have one more thing that I would like to try. The speaker audio from the Yaesu radio's main body is a little hard to hear from under the seat. In the previous vehicle I had an old Motorola external speaker connected to the radio and it sat on the floor behind the driver's seat. I didn't want the speaker rolling around on the floor and getting in the passenger's way, so I thought about another idea. The new car has Bluetooth capability so why not try a generic Bluetooth module that accepts audio input? I ordered a couple of these and at this writing they haven't arrived. Perhaps in another installment I can tell you how that experiment worked. Of course I could just connect the speaker output to the Subaru's MP3 portable player analog input. The reason I would like to try the Bluetooth idea is that it will save me from running another wire.

Hints and kicks

Here are a few tips for successful installation of a radio in your vehicle. First gather information. You

may be surprised that your automobile manufacturer provides good information even if I wasn't successful in this regard. Next assemble all the needed supplies beforehand. Consider radio and antenna placement carefully. One of the things I wanted to improve in my new car was inconspicuousness of the instal- Greg, KB2CQE. lation. Cables



Bob, N2CBH points out the electrical connections under the Subaru hood to Greg, KB2CQE.

need to be hidden and the radio shouldn't be in the way. In my Jeep the radio was mounted under the dash on the driver's side, close to the door. I can tell you that a number of times the radio took a beating from my foot, while getting in and out of the vehicle. The new installation is really compact and comfortable to use. Despite what you may have heard, amateur radios can be successfully installed in modern vehicles and it can be a fun experience to boot.

- 73 de Bob, N2CBH

Windows 10 - X marks the spot

In a previous issue of *PCARA Update*, I described experiences with a convertible notebook computer that had Microsoft Windows 8 installed and doubled as a



HP Pavilion x2 convertible notebook displaying the Windows 8 Start Screen. It can operate as a laptop with keyboard and touch-pad attached or as a touch-screen tablet when detached.

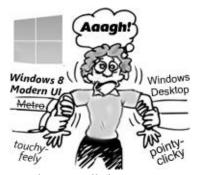
tablet. [See **Windows** wait', PCARA Update, February 2014, p. 10]. Back then, my opinion about Windows 8 was clear — Microsoft had made a terrible mess of combining their new interface for touch-screen devices, called

"Metro" or

"Modern UI", with the traditional Windows desktop that requires a keyboard and mouse for navigation. The old "Start Menu",

which first appeared in Windows 95, had been abandoned in favor of a "Start Screen", showing available choices of "apps" in the form of colorful live tiles. Those tiles had been sized for tapping by fat fingers rather than the precise positioning of a mouse.

In October 2013, one year after the first appearance of Windows 8, Microsoft released a "point"



Windows 8 pulled users in two different directions depending on whether they were using the Modern User Interface, intended for touch-screens — or the classic Windows Desktop, designed for mouse and keyboard.

upgrade to Windows 8.1. This addressed several of the most serious complaints from desktop users — for example it became possible to boot straight to the Desktop, avoiding the Start Screen. But Windows 8/8.1 was still unpopular with the public and with corporate computer centers, who largely stayed with Windows 7 for business applications.

Do-over and over

Back in 2014, I wrote: "There are rumors that Microsoft will fix some of these basic problems with a further update to Windows 8.1 in April 2014, followed

by a completely new version of Windows (version 9?), code named 'Threshold'. This would be released in April 2015, well after current CEO Steve Ballmer has retired."

My forecast was not too far off the mark. Steve Ballmer was replaced by **Satya Nadella** as Microsoft CEO in February 2014. Satya Nadella had been busy leading Microsoft away from traditional desktop computing to the world of cloud-based infrastructure and paid-for services. In April 2014, under the new CEO, an update to Windows 8.1 was released, with a reduction in memory requirements so the new operating system could run on less expensive hardware having only 1 GB of RAM. Microsoft insisted that everyone must install the April 2014 update, otherwise there would be no

more security patches. However, there were problems with installing the update and Microsoft had to relax their aggressive timing.

The "completely new version of Windows" that I mentioned was first announced in



Microsoft CEO Satya Nadella.

October 2014. Its name was to be "Windows 10" rather than "Windows 9". Enthusiasts were encouraged to join a test program prior to actual release in order to provide feedback and help stamp out bugs. My forecast for the official release date was off by only three months, as Windows 10 made its official public appearance on July 29, 2015.

A new start

When Windows 10 was released on July 29, Microsoft broke with its traditional pricing. For the first year, upgrading to the new version would be **free** for existing owners of Windows 7, 8 or 8.1. Perhaps this was an admission that Windows 8 was so disappointing that charging owners for an upgrade could be viewed as adding insult to injury. However, Microsoft's offer to *also* upgrade Windows 7 seemed quite generous. (But was it advisable? Stay tuned.)

Microsoft prepared for the worldwide rollout of Windows 10 by informing existing users who had subscribed to automatic updates, by staggering the installation over several weeks and by downloading the necessary files in the background so the Internet was not overloaded with petabytes of data on launch day.

In mid-July, I saw a notification from Microsoft on my Windows 8.1 notebook explaining how to upgrade to Windows 10. I registered for the update and waited for the official roll-out day of July 29. Although I noticed a lot of download activity, nothing happened at first, except for repeated '80240020' errors in the Event Log. Apparently this was Microsoft's way of spreading out the upgrade to millions of users over several weeks. I found a way around the delay and the update began.



The upgrade from Windows 8.1 to Windows 10 began...

As installation proceeded, I was given a chance to Customize Settings — I was careful to turn off various options for sharing data with Microsoft and for sharing my wireless connection with contacts.

Later on I changed various additional settings to improve security — including turning on "System Restore" for the C: drive, creating a "recovery drive" on a USB memory stick and setting Windows Update so it would notify me to *schedule* a restart after patches were installed.



The new Lock Screen which appeared after my upgrade to Windows 10 was completed. Press any key to sign-in.

What's new?

Windows 10 seems to be working well on my convertible notebook computer. Startup and shutdown times using the Solid State Drive are *very* fast.

The new Start Menu still includes "Live Tiles" but there is now a new choice at bottom-left called "All apps". When selected, this brings up a list of all the "Modern UI" apps *and* the traditional desktop applications in alphabetical order on the left side of the menu, similar to "All Programs" on the old Windows 7 start menu.

For home users, security patches and performance updates to Windows 10 are now downloaded and installed *automatically*. There is no longer an opportu-



The new Windows 10 Start Menu has "All apps" at bottom-left.

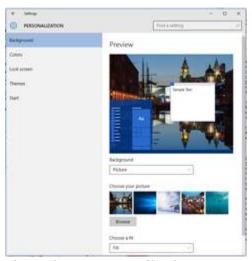
nity to review the list of monthly updates issued on Patch Tuesday and decide which to accept. The only choice is whether to be notified so a restart can be scheduled and whether to turn on "Metered connection" for a wireless network to avoid expensive data charges for downloads. Since the arrival of Satya Nadella as CEO, the quality assurance of Microsoft's patches seems to have deteriorated, so it was always advisable to wait a few days before installing updates.

The separate worlds of Modern-UI "apps" and of desktop applications have now been joined together, so that apps and conventional programs can coexist in their own separate Windows on the same desktop. For a traditional keyboard and mouse user, this is still a bit of a strain as the Modern-UI apps use LARGE ICONS and widely-separated choices to accommodate touch-screen users with fat fingers. Compared with an 'app', traditional desktop applications pack a lot more information into the same space, for selection with a precision pointing device. Nevertheless, Windows 10 is a significant improvement over Windows 8, which kept the two worlds completely apart, using different paths to the modern Start Screen and the traditional Desktop.

But there is more confusion ahead because Microsoft has programmed its most often-used Windows 10 utilities as Modern-UI apps, while the less-popular utilities are still in the more familiar Windows Desktop program style. One example is Windows Explorer, now named "File Explorer" which retains the classic style.

Another example can be found via the "Settings" screen which leads into additional Modern-UI screens for "System", "Devices" and "Personalization" etc. However if you select Settings \rightarrow Personaliza-

tion \rightarrow



The **Settings** → **Personalization** app is one of the Modern-UI utilities in Windows 10 with lots of white space.

Themes → Theme settings, a new window opens up in classic style for choosing your desktop background, colors and sound scheme.

Those colors for program windows are more restrictive than in previous versions of Windows. Apart from the High Contrast themes, the only choice for traditional title bars is **white**. This makes it difficult to tell which window is active when you have a large number of applications open on the desktop. Henry Ford would have been proud! *You can have any color you like, as long as it's black* lettering on a white background —



The only color choice for Windows 10 program title bars is black text on a white background.

that's unless your application defines its own title colors. There is hope that Microsoft will recognize the

problem this causes for desktop and notebook users by allowing more color variations in a future update. We radio amateurs may feel the pain more than the average person since **61**% of our station computers are desktops and **30**% are laptops (*QST* Quickstats survey, Dec 2014.)

Give it a go

I decided to try some amateur radio software on my convertible notebook, which had previously been running Fldigi for digital modes with a SignaLink™ USB adapter under Windows 8.1. I followed the latest SignaLink setup instructions on Tigertronics' web site http://www.tigertronics.com, plugging the SignaLink USB cable into the notebook then checking that the device appeared correctly in Windows 10's "Sound" device list. Once the SignaLink USB driver was correctly installed, I downloaded the latest version of Fldigi from the W1HKJ web site, http://www.w1hkj.com and installed

it on the notebook. The new version found all my previous settings and was ready to use the external sound card housed within the SignaLink USB case. I turned on my Icom IC-706 MkIIG and was rewarded with the appearance of digital signals in the Fldigi waterfall display. I set audio levels according to instructions from Tigertronics, then after a little tuning around on 20 meters, I made my first PSK31 contact using Windows 10 with KC9KZQ in Fond du Lac, Wisconsin.



Fldigi program for digital modes works well with Windows 10.

(A quick word of advice here — if you want to run digital modes and your HF transceiver is not one of the later models with a built-in USB sound card, then an external sound adapter such as the SignaLink is the best approach. That way you can keep your computer's built-in sound card for Windows' *own* sounds and local microphone, while the external adapter is busy transmitting and receiving digital modes such as PSK31 and RTTY. Also, full marks to W1HKJ and Tigertronics for keeping their software and documentation bang up-to-date with the latest version of Microsoft Windows.)



SignaLink USB Sound Card adapter for digital modes connected to the Icom IC-706 MkIIG transceiver .

Good effort

Four weeks after the official release of Windows 10, Microsoft claimed that **75 million** devices had installed the new operating system on more than 90,000 different computer models around the world. This was quite an achievement when you consider that

it was mostly performed without any local I.T. support onto a variety of devices with two previous versions of Windows, using just the Internet as distribution mechanism.

However, the situation is not entirely rosy as some people reported problems with their individual upgrades. Even after Windows 10 was installed successfully, some applications proved to be incompatible. This was especially true for the Windows 7 users, who were making a larger leap than the people just upgrading from Windows 8. Rolling back an unsuccessful installation to the previous version of Windows was also not without its problems.

Leap of faith

My own experiences with Windows 10 on the convertible notebook computer have been mostly positive. Meanwhile, my desktop computer in the radio room was showing signs of age — after five years' heavy use with Windows 7 it would sometimes run slowly and occasionally refuse to start. Rather than attempting an upgrade to Windows 10, I decided it was time for a new computer.

The first change I noticed compared with five years ago is that choice of desktop computers in local stores is severely limited. Instead, the store shelves are stocked with smart-

phones, tablets and notebooks. I was looking for a desktop computer with a fast Intel processor, lots of memory plus a solid state drive. After much research, the only place I could find that combination in August 2015 was online. Two weeks after placing the order, my new computer arrived with Windows 10 Professional already installed. I then began the lengthy task of preparing it for the radio room.



The new desktop computer arrived with Windows 10 Proinstalled.

No thanks

During setup of Windows 10 on the new desktop, I chose *not* to accept Microsoft's 'Express Settings', instead going through 'Customize settings' so that I could refuse all offers to share information with Microsoft, with advertisers or with contacts. I also chose *not* to employ a Microsoft account, creating a local account instead. Since the computer has a wired Ethernet connection, I disabled Wi-Fi and Bluetooth. I also disabled Microsoft's "Cortana" help assistant by clicking the

Search bar then clicking the icon in the upper left to reach the Search->Settings window.

Download time

The next step was to install essential software for security and communications. I downloaded the latest version of Firefox from http://www.mozilla.org and configured it with Flashblock and NoScript to control the various hazards and excesses of modern web sites. I uninstalled the trial version of McAfee Internet Security supplied with the computer and replaced it with Norton Internet Security.

This was followed by installation of all my usual software for office productivity, spam filtering, photo editing and desktop publishing. I ran into one problem with the previous backup software, Norton Ghost, which was discontinued in 2013. Instead, Symantec now recommends 'System Recovery Desktop Edition'. At the time of writing, this product was still incompatible with Windows 10 — so I changed allegiance to Acronis True Image 2016.

Some of the features of Windows 7 are no longer supported in Windows 10. One item I badly missed was the ability to install Windows Desktop Gadgets — small applications that occupy the top right of the screen to

display system information, clock-time, weather etc. Microsoft retired this feature in Windows 8 and 10 because of security concerns — though in practice Gadgets are no more dangerous than any other software that you can download from the Internet — just be *very wary* of the source! After a trial on the convertible notebook, I settled on "8GadgetPack" as the best utility to allow Gadgets to run on my Windows 10 com-



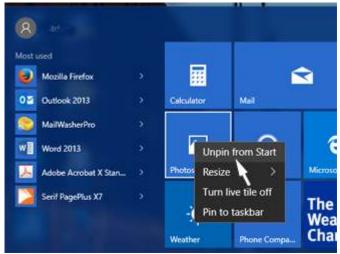
CPU Utilization gadget running on the convertible notebook.

puter. (See: http://8gadgetpack.net/)

Another problem emerged while using File Explorer after I double-clicked on a .jpg photo file. I was expecting to see a preview in Windows Photo Viewer, which also allows printing and mailing of pictures. Instead, Windows 10 opened the Modern-UI "Photos" App which is a lot less useful. This was odd because my convertible notebook, previously updated from Windows 8.1 to Windows 10, was still launching Photo Viewer. I found an explanation in the "Windows Ten Forums" site, http://www.tenforums.com, which stated that the default photo viewer depends on whether Windows 10 is an *upgrade* from a previous version or a *fresh* install. Fortunately, the old Photo Viewer is still present within Windows 10, and the same web site provides a registry script for restoring it.

Back to the start

During initial setup, I had grown increasingly unhappy with the new Windows 10 Start Menu. Although it is now possible to call up a Windows 7-style list of "All apps" (All Programs) in the left column of the menu, the rest of the menu is still cluttered with a selection of multi-colored "Live App" tiles, some of which are continuously updating to distract the eye. Ugh! Fortunately, it is possible to change this with a few steps. First, right click on any animated tile and select "Turn live tile off". Second, if you have a lot of "shovelware" promotional applications installed by the computer manufacturer, right click on each tile that you no longer need and select "Unpin from Start".



You can remove a Live Tile from the Windows 10 Start Menu by right-clicking then choosing 'Unpin from Start'

For the third and most drastic step — if you unpin *all* the tiles, you can then resize the Start Menu so it only shows the left-hand column. That left column still includes your "Most Used" and "Recently added" applications as well as "All apps", "Power", "Settings" etc. You can further customize what appears in the left column of the Start Menu using Settings \rightarrow Personalization \rightarrow Start. If you are still yearning for access to those other Windows 7 menu items such as 'Control Panel', 'Run', 'Device Manager' and other system utilities, you can *right-click* on the Windows Start button to bring up an old-style list of all those items.

To upgrade or not to upgrade

(Did 'X' mark the spot?)

I have mentioned before that in the world of Enterprise computing, you *never* roll out any new operating system from Microsoft to tens of thousands of people until at least the first Service Pack has been released. Service Packs for earlier versions of Windows fixed bugs and deficiencies reported by early users and generally made the system a lot more reliable.

Microsoft claims that Windows 10 will be differ-

ent, as they plan to release security patches and feature updates on a continuous basis throughout the life of the product. The version released to the public on July 29 should already be sufficiently reliable as it has been field-tested by an army of volunteers.

Nevertheless, Windows 10 still feels like it is in **late-beta**, with more patches appearing immediately after release, bugs still to be fixed and missing features that still need to be restored.

From Windows 8

If you have an *existing* computer with Windows 8 or 8.1, then I would say the free update is well worthwhile. But be sure to make a backup of all your essential data, make sure there is sufficient disk space and check compatibility of all your existing software before making the leap. (Better still, buy a new hard drive and setup Windows 10 with a fresh install.) You *might* want to wait for the next major update of Windows 10, codenamed "Threshold 2" (TH2), scheduled for November 2015.

From Windows 7

If you have a modern computer that is currently running Windows 7, then I would think long and hard before accepting the free upgrade to Windows 10. You are much more likely to run into hardware and software problems when you carry out an in-situ upgrade from Windows 7 to Windows 10, compared with the less serious jump from Windows 8. And you may be in for a lot of surprises if you have not already experienced the shock of the Windows 8 Modern-UI.

Extended support for Windows 7 continues until

January 14, 2020 so there is plenty of time to continue enjoying Microsoft's most popular operating system, especially if you are not ready for an upgrade yet. Windows 7 is





installed on roughly 60% of all desktops at present.

But if you have an *older* desktop or notebook with Windows 7, Vista or (horrors!) Windows XP, then it might be time for a new computer. Once again, check compatibility of your essential software with the new version of Windows. I would recommend choosing a new computer model with either Windows 10 or Windows 10 Pro and a *Solid State Drive*. The performance will amaze you, especially compared with your previous computer system that probably had less memory and a spinning hard disk.

- NM9J

Run Against Hunger

Sunday October 18, 2015

We're back

In October 2014, PCARA provided communications support for the 34th "Harry Chapin Memorial Run Against Hunger". This event takes place every year in Croton-on-Hudson, in honor of singer-songwriter Harry Chapin who died in an auto-accident in 1981 and spent much of his career raising money to combat hunger. (See *PCARA Update*, November 2014 for a full account.)

Race organizers Mike Grayeb and Jud Ramaker invited PCARA to return to Croton-on-Hudson for the 35th annual race, scheduled for Sunday October 18, 2015.



Ready for the start

PCARA met with the race organizers on Sunday September 20th to find out what their needs would be and what might have changed since 2014. Westchester Emergency Communications Association (WECA) has another engagement on the same day, providing communications for an equestrian event in Sleepy Hollow. At this first meeting, WECAgram editor and PCARA member Al, K2DMV was present to represent WECA's interests.

For the main event of the day, the **10K Run**, a decision was made to have radio communication points at the same Water Stops and Mile Points as last year. In



Course of the **10K Run against Hunger**. M1 - M6 = Mile Points. W1 - W4 = Water Stops. X= Trail crossing.

2014, even with assistance from WECA we still had barely sufficient operators to cover all positions, so additional volunteers will be very welcome. Here is a list of the required stations.

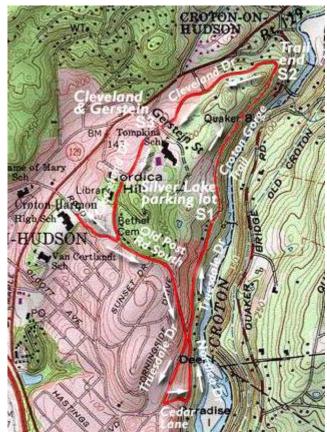
Station	Location
Net control	Croton-Harmon High School
Shadow	Croton-Harmon High School
Trail car	Following last runner
Water Stop #1	140 Batten Rd
Water Stop #2	East end of Croton Dam
Mile Point 3	Croton Dam Rd & Quaker Ridge Rd
Water Stop #3 / Mile 4	Danish Home
Mile Point 5	Quaker Bridge Rd & Niles Rd
Water Stop #4	Jacoby Street
Mile Point 6	Cleveland Dr & Alexander Lane

The 10K Run begins at 11:45 a.m. from Croton-Harmon High School, so it would be advisable for operators to be on-station by 11:30 a.m. at the latest. The leading runners complete the course in about 40 minutes while the slower entries finally arrive back at the school around 100 minutes after the start. Be aware that roads around the course, including Route 129, are closed by the police during the event, so it can be difficult to move around the course once the race has started.

The first event of the day, starting at 9:30 a.m. from Croton-Harmon High School, is the **5K Walk** which passes through Croton Gorge. The organizers have requested radio coverage at the same two points as last year along the Gorge Trail, plus one additional station at the intersection of Cleveland Drive and Gerstein Street. It takes roughly 1 hour for all entrants to reach the finish line back at the High School.

Station	Location
Stop #1, Start of Croton Gorge Trail	Truedale Drive, Silver Lake parking lot
Stop #2, End of Croton Gorge Trail	Trail end at Cleveland Drive
S3 Intersection	Cleveland Drive and Gerstein Street

The operator at Cleveland and Gerstein St. could stay there for the subsequent 1 mile Fun Run, which starts at 11:00 a.m. The other operators from the 5K Walk can relocate to nearby Water Stops or Mile Points on the 10K Run after the walk is over.



Course of the 5K Walk which begins at 9:30 a.m. near Croton-Harmon High School and ends approx. 1 hour later back at the school. S1, S2, S3 radio stations.

Be prepared

If you would like to assist with communications for the Run Against Hunger, here are a few suggestions.

- 1. As soon as possible, inform Greg, KB2CQE via mail'at'pcara.org that you are available to take part on Sunday October 18th. Greg will then keep you informed by e-mail with further news about the event. We hope to assign positions ahead of the start time so if you arrive later in the morning, you would not have to drive into the High School area after it becomes busy.
- 2. If you have the equipment available, please bring along a handi-talkie with external antenna as well as your mobile transceiver. That will provide flexibility for both portable and mobile operations. (Mile Point 3 on the 10K Course is particularly difficult to reach from the High School *via* simplex.)
- 3. Make sure your equipment is already programmed with the 2 meter frequencies that we used last year: 146.565 MHz simplex and the PCARA 2 meter repeater on 146.670 MHz -0.600, 156.7 Hz PL tone. Be prepared to reprogram your transceiver in the event that we encounter co-channel interference or have another change of plan.

4. Bring suitable clothing plus adequate provisions to keep yourself safe and comfortable during the three events, which begin at 9:30 a.m. and finish some time after 1:00 p.m. An orange safety vest can be helpful for identifying yourself to the runners on a busy highway.

Further reading

Detailed directions plus course maps for the 5K Walk, 1 mile Fun Run and 10K Race are all available at the 'Run Against Hunger' web site,

http://www.runagainsthunger.com

- NM9J

New York QSO Party

The New York QSO Party, sponsored by the Rochester DX Association, takes place on Saturday October 17, 2015. Last year, PCARA's club entry, organized by Joe, WA2MCR made 463 QSOs for 548 points. There were 100 multipliers for a final score of 54,800. For further details, see PCARA Update, November 2014.

Individuals and organizations can sponsor plaques for winning entries in the NY QSO Party. In 2014, two plagues were sponsored by PCARA, the "NY Multi-One Low Power" plaque which was carried over from 2013, plus the "Non-NY Phone Low Power" plaque. For 2014, the "NY Multi-One" plaque was awarded to the Cold Brook Contest Club, W2CCC. The "Non-NY Phone" plaque was awarded to Greg, VA3GKO in Ontario, Canada. For the 2015 event, PCARA is sponsoring both awards once again.

If you are interested in operating in the New York QSO Party this year, you can take part from your own station, or contact Joe, WA2MCR for details of the club station entry using W2NYW. The contest starts at 10:00 a.m. Eastern (1400 GMT) on Sat-



urday October 17 and runs for 12 hours until 10:00 p.m. Eastern that same evening. For the contest exchange, New York stations send signal report plus county, using a three-letter abbreviation for the county name. Westchester is WES and Putnam County is PUT. Stations outside New York will send their Signal Report plus State, Canadian Province or "DX".

Full contest rules, including the list of three-letter county codes, are available from the RDXA web site at: http://rdxa.com/ny-qso-party/

Adapter for a cordless drill battery pack - N2CKD

Recently, I was in the middle of a project requiring the use of an electric drill. I happen to have one corded and two cordless drills, but I only have one Makita 2.0 ampere-hour nickel cadmium (NiCd) cordless drill with the *reverse* capability, to unscrew — which I needed.

Unfortunately, the NiCd battery pack and the spare were completely discharged and would not recharge again. So, I had to quickly devise a way to power the cordless drill with some sort of 12 volt DC power supply and to make an adapter. I already had a 13.8 volt 6 amp Amateur Radio power supply (obtained at a ham flea market) and a 12 volt car battery charger, so all



Makita 12V 2.0Ah cordless drill with spare NiCd battery (left).

I needed to do was to make an adapter/connector to fit inside the cordless drill.

Step by step

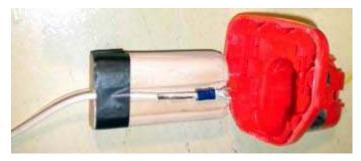
1. I cut open the discharged battery pack's plastic shell with a hacksaw blade. I cut around the edge so that it neatly exposed the NiCd battery pack which I tested (dead batteries) and discarded, but held on to the empty battery pack shell.



12 volt battery pack for Makita drill has been cut open and the NiCd cells removed (left). An unopened battery pack is shown on the right. [Pics - N2CKD]

2. I took a piece of wood about 3 inches long and shaped it using a chisel and file to fit the empty

battery shell. I made a groove on each side to push through 2 wires and attached connectors at the ends. These connectors touch the \pm DC power points inside the drill. I pushed the adapter inside the battery pack shell and into the drill.



Piece of wood shaped and grooved by Lovji to accommodate the connecting wires, was fitted inside the top of the opened battery case.

3. I tested the hookup by connecting an ammeter (10A setting on a digital VOM) in series with the drill and my 12 volt car battery. I powered up the drill and noted 6.3 amps flowing through the circuit. I tested it again using a 12 volt car battery charger and noted again that the circuit drew 6.3 amps DC. (Never knew that a cordless drill could draw that much amperage!)



The modified battery pack was tested in the drill, using a 12 volt battery charger as power source. Lovji monitored current draw on the amps range of a VOM multimeter.

4. Since my Amateur Radio power supply happens to be rated at 13.8 volt, 6 amp continuous / 8 amp surge, I connected the drill with the adapter to the DC power supply and the drill powered up and worked flawlessly. No more dead battery packs to worry about (replacement battery packs are expensive).

...Make something ...become a Maker! - Lovji, N2CKD

Fusion repeaters

At the end of August, Greg KB2CQE reported that both of the Fusion DR-1X 144/440 MHz C4FM repeaters ordered from Yaesu had been delivered and were awaiting programming.

On September 7, PCARA's technical team unboxed the units and inventoried items in each container. In addition to the repeater chassis, Yaesu had included power cables for 120-240V AC and 12V DC. There were spare fuses, case feet, instruction manual and warranty plus an SCU-20 USB cable for updating the software.

As it turned out, PCARA's repeater had been supplied with the latest "Ver 1.00b" software, so there was no need for a firmware upgrade. Your editor began an investigation of this first unit to discover its capabilities and to perform an extended "soak test" prior to permanent installation.

Fusion test

At the time of writing, PCARA's Fusion repeater is operating on the same frequency as the KB2CQE UHF repeater, with output on 449.925 MHz, –5.0 MHz offset. The CTCSS (PL tone) is **103.5** Hz instead of the more usual 179.9 Hz tone employed with Greg's repeater. This allows on-air testing without simultaneous operation of the KB2CQE repeater.

The first repeater is operating temporarily from the editor's location with a Motorola four-cavity passband duplexer. Output is currently set to 20 watts, with separate antennas for transmit and receive to avoid desense. Coverage is similar to the N2CBH UHF repeater. This is *not* intended as a long-term arrangement, so feel free to try it out while you can. Several members have already made successful contacts from base, mobile and HT radios. If you would like to test your *own* FM radio through the new Fusion repeater, program one of your radio's memories to the correct



PCARA's DR-1X Fusion repeater operating in the test location, with antennas fed through the Motorola cavities.

frequencies, but with a 103.5 Hz PL tone. If you have a *digital* C4FM transceiver, you could also test with digital modulation on the repeater input — the DR-1X is set-up for "Automatic Mode Select" (AMS) to detect whether the incoming signal is analog or digital, and with "Fix" output to transmit analog FM in both cases. Bob, N2CBH was first to make a C4FM contact.

Meanwhile, Greg has installed the second repeater in a portable 19 inch rack cabinet with space for a small duplexer and other accessories.



Greg KB2CQE mounted the second DR-1X repeater in a portable rack case — with optional tone generator on top (aka Spencer).

During the tests we made several observations on Fusion repeater operation. The through-audio on the output is *slightly* delayed compared with audio on the repeater input, presumably as a result of digital signal processing. The delay makes it difficult to monitor your own audio by "listening-through" to the output on another receiver, but it does allow you to hear your own squelch-tail immediately after each transmission.

The repeater has a very short "hang" time, and even at its most sensitive squelch setting, the squelch closes well before the signal becomes noisy. As a result, weak fluttery signals tend to drop out more rapidly than you might expect. There is no courtesy tone to indicate the end of transmission. And there are few opportunities to control the repeater remotely. Most of these items could be improved by adding an external repeater controller, but this would require modification to the repeater wiring, voiding the warranty.

On the positive side, the new repeater has a very sensitive receiver and is easy to configure using the touch-sensitive front panel display. This ability to quickly set the repeater on any frequency in the 144 MHz *or* 440 MHz bands makes the Fusion DR-1X a good choice for emergency stand-by or temporary use as a portable repeater.

Stay tuned for further updates as we study the best way to deploy this brand new equipment. - NM9J

Peekskill / Cortlandt Amateur Radio Association

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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 Oct 4: PCARA Meeting, NewYork-Presbyterian / Hudson Valley Hospital, 3:00 p.m.

Sat Oct 17: New York OSO party.

Sun Oct 18: 35th Annual Harry Chapin Run Against

Hunger, Croton-on-Hudson, NY.

Hamfests

Sat Oct 10: Bergen ARA Fall Hamfest, Westwood Reg. HS, 701 Ridgewood Rd., Township of Washington, NJ. 8:00 a.m. **Sun Oct 18:** Hall of Science ARC Hamfest, NY Hall of Science, 47-01 111th St., Flushing Meadows, Queens. 9:00 a.m. **Sun Oct 25:** LIMARC Indoor Hamfest, Levittown Hall, 201 Levittown Parkway, Hicksville, NY. 9:00 a.m.

VE Test Sessions

Oct 3, 10, 17, 24, 31: Westchester ARC Radio Barn, 4 Ledgewood Pl, Armonk NY. 12. Pre-reg. M. Rapp, (914) 907-6482.

Oct 4: Yonkers PAL Ham Radio Club, 127 N Broadway, Yonkers NY. 2:00 p.m. Pre-reg. M. Rapp (914) 907-6482.

Oct 4: Yonkers ARC, Yonkers PD, Grassy Sprain Rd, Yonkers. 8:30 a.m. Pre-reg. John Costa (914) 969-6548.

Oct 8: WECA, Westchester Co Fire Trg Cen, 4 Dana Rd., Valhalla, NY. 7:00 p.m. S. Rothman, 914 831-3258.

Oct 19: Columbia Univ VE Team ARC, 531 Studebaker Bldg, 622 W 132nd St, New York. 6:30 pm. Alan Crosswell 212 854-3754.

