



# PCARA Update



Volume 10, Issue 11      Peekskill / Cortlandt Amateur Radio Association Inc.      November 2010

## What's new Pussycat?

What do October 2005, February 2007, February 2008, October 2008, and October 2009 have in common? All are issues of the **PCARA Update** that have received recognition as the ARRL Hudson Division's Newsletter of the Month! For the **fifth** time in four years, the *PCARA Update* Editor-in-Chief Malcolm, NM9J has been recognized for his outstanding talents and efforts. I think I'm beginning to see a trend. Congratulations and thank you Malcolm. We couldn't do it without you!

The PCARA Holiday Dinner will take place at 3:00 PM on Sunday December 6, 2009. Where the gathering will take place is yet to be determined. This item will be among the hot topics to be discussed at the November 1<sup>st</sup> meeting. Bring your ideas and suggestions with you to the November meeting.

This is the time of year for another annual event, nominations for President, Vice-President, and Secretary-Treasurer. Nominations are due at the November 1<sup>st</sup> meeting, with the election being held at the December 6, 2009 meeting, during the PCARA Holiday Dinner. Now is a great time to consider tossing your hat into the ring!



*This tabby tone-generator is Greg's pussycat **Max**. When Max is in the right mood, he can generate frequencies between 25 and 150 Hz for use with Greg's inexpensive Feixiang FD-288 UHF transceiver from China.*

Our next meeting is scheduled for November 1, 2009 at 3:00 PM at Hudson Valley Hospital Center. I look forward to seeing each of you there.

- 73 de Greg, KB2CQE

## PCARA Officers

President:

Greg Appleyard, KB2CQE, kb2cqe at arrl.net

Vice President:

Joe Calabrese, WA2MCR; wa2mcr at arrl.net

## Timely reminder

Don't forget that Daylight Savings Time 2009 comes to an end on this month's PCARA meeting day, Sunday November 1. Put your clocks back on Saturday night, October 31, right after the little horrors have finished trick or treating.



## 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 neighborly news and technical topics.

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# Adventures in DXing

– N2KZ

## Flea Fest

Any seasoned ham is familiar with the sound of a rare DX pile-up. A tentative distant signal sends a quick 'QRZ' followed by a thousand powerful replies all at once. The intensity is amazing and alluring. Imagine a microcosm of this m $\acute{e}$ l $\acute{e}$ e. What if high power was not allowed or available? One tiny, tiny signal followed by whispers from everywhere. Here your clout is measured by your ability to use ultra-sensitive receivers and big antennas! Welcome to a QRP contest!

There are many QRP contests throughout the year. Arguably, they may be the greatest challenge in all of ham radio. This is a world where output power is measured in *milliwatts* and good equipment and skill produce winning operations. Sophisticated receivers, with state-of-the-art filtering and processing, are often used with complex and lofty antennas to make the most of the micro-signals. Anyone can make contacts with 100 watts. How about 100 *milliwatts*?

Each and every log entry is truly a miracle. During the last QRP Amateur Radio Club International (ARCI) QSO Party, October 17th and 18<sup>th</sup>, I worked several stations in '7 land' with my mighty one watt Small Wonder Labs SW+20 transceiver built from a kit. I power the rig with eight AA penlight batteries and use an old Navy Flameproof straight key to pound out my anxious CW into a homebrew dipole flying up in nearby trees. My most notable QSOs included touching base with Boeing Aircraft's Bearons group in Seattle and a ham using battery power in the high desert of Arizona. He was almost cheating with a full five watts of QRO!



John K7HV operating on the seashore near Rialto Beach, WA.

Another station I worked was situated right on the beach front at Olympia National Seashore near

La Push, Washington. It was John, K7HV, using his Hendricks PFR-3 QRP rig at four watts into a vertical long wire with ground radials. He powers his station with a large gel cell he keeps charged with a solar panel. We had a blast conversing on 20 meter CW on 14.060 MHz. Our *combined* RF output power was only five watts! Watch a tour of his station at: [http://www.youtube.com/watch?v=yjxh\\_9y4Js4](http://www.youtube.com/watch?v=yjxh_9y4Js4).

QRP ARCI weighs your contacts by how much power you are running. Their most challenging category is the under 55 milliwatt crowd! Here, each QSO counts as 20 points. The lowest I can go, using my Tuna Tin II, is about 80 milliwatts. Keep in mind that 50 milliwatts is one twentieth of one watt. This makes garage door openers seem like mighty powerful rigs! QRP can be done! Some operators dare to use powers down into the microwatts! Imagine attenuating your output power to go from 250 milliwatts to 100 microwatts. It's simply amazing!

It is the sound of the contest that is most alluring. It really mimics a conversation of fleas: Tiny little tentative signals all desperate to reach another operator. The persistence of QRP operators is admirable and amazing. Try we will until the QSO is logged! QSB is your worst enemy and we often repeat basic information several times before we reach fruition. Are we all crazy? Maybe! But it is a lot of fun!

Many of the stations participating operate on battery power and/or at remote locations very much like ARRL Field Day. Some stations are manned by great organized groups of QRPers banding together on multiple bands to bolster their scores. It's quite an amazing effort in the name of flea power! Try it for yourself! For a complete listing of QRP events, take a look at: <http://www.amqrp.org/contesting/contesting.html>. It's fun to be...a flea!

## Hello, Up There!

Driving home from work, one recent afternoon, I heard an unusual call on 146.52 MHz FM simplex: "CQ CQ CQ two meters. This is kilo bravo one romeo x-ray alpha. Kilo bravo one romeo x-ray alpha. Five watts, five watts, 1-2-3-4-5 watts in Kent, New York. Kent, New York. Fire tower. Fire tower. 1400 feet. 1400 feet. Listening for calls!"

I couldn't resist. I called back, using my Icom IC-



KB1RXA QSL

T7H HT and a mag-mount whip, and actually got a response! It was Chris, KB1RXA, visiting the top of the fire tower at Ninham Mountain State Forest in Kent, New York (north of Carmel off Route 301/47.) Using just a little battery-powered Yaesu HT, Chris managed to contact Milford, Connecticut and myself roaming in a car in terrain challenged Pound Ridge, New York. I was traveling, in my car, through the worst rock laden valleys around and he still heard me! On VHF, height truly is everything!



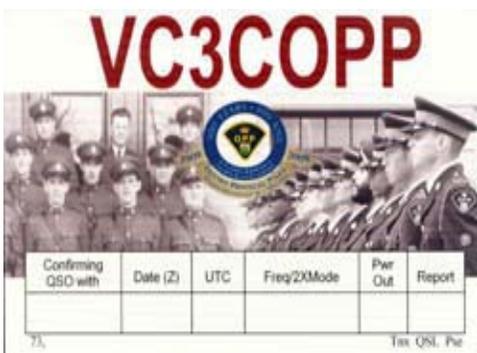
*The restored fire tower atop Mount Ninham, in the Town of Kent, Putnam County. Tower height is 90 feet.*

Chris works an early shift and likes to operate with his HT from various lofty locations. This was one of his favorites and I could understand why! Thank you, Chris, for bringing interest back to FM simplex operation! He has even created a special QSL card for his contacts from the tower. I know where I am going with my portable six meter rig the next time I get a chance! What a location! Check it out yourself if you seek adventure!

### Never Hurts To Ask

I was listening to 40 meters, one recent morning, while taking a shower, (doesn't everybody?) and heard a special event station on LSB.

It was VC3COPP on 7180 kHz celebrating 100 years of service of the Ontario Provincial Police. I don't have phone



*Ontario Provincial Police, VC3COPP QSL*

capability on HF, so I fired up my trusty Heathkit HW-16 (50 watts CW only) and gave them a call. The operator, Bill VE3CRU in Whitby, Ontario, heard me and immediately reverted to CW to complete the QSO. I apologized for being CW and his response was "FB OM!" I've sent away for their commemorative QSL. It never hurts to try CW!

### If It Works...

I'm still trying to sort out digital over-the-air TV reception at my QTH. One bedroom was particularly hard to connect to my 8-bay bow tie with preamp up on the roof. I had to come up with another solution. I had a variety of UHF antennas to choose from, but most of them were not discreet and low profile. It is difficult to hide a long Yagi or a full-sized bow-tie with a reflector!

My compromise was a two bay bow-tie originally designed to sit on top of a TV set. I used a left-over pole meant to hold up a hospital IV fluid bag as a mast and placed it in a closet facing New York City. Barefoot, the mini-antenna just barely worked feeding a common small flat screen TV



*Hang up your coat — and your DTV antenna — in the closet.*

with a built-in ATSC digital tuner. I added a trusty Channel Master wideband low-noise preamp and the added gain made the system quite useful. It's a lot more complicated than its predecessor (a simple pair of rabbit ears) but it works!

### Fall Cleaning

Did you ever take a hard look at your HT or scanner? Most have at least 40 or 60 preset channels. Some models have more than a thousand! How many can you actually recall? (This presumes you don't have a unit that allows alpha-numeric notations!) My Icom IC-T7H has 60 memories and I can name maybe ten or fifteen with authority. This includes two or three I use in Michigan. What are all the rest for?

I took a stab at housekeeping. I put together a quick Excel spreadsheet and did some research into



Karl's Icom IC-T7H has 60 memories that needed a good Fall clean-out.

what I had programmed into my HT. Every single one of the sixty channels had been allocated to something. All seven NOAA weather channels are present along with some broadcast auxiliary frequencies like the IFB channels for ABC, NBC and CBS. I've also have a handful of marine frequencies.

It's amazing to me that about half of them are unidentified entries. Was I out-of-town and entered a local repeater? Did I load a bunch of IRLP links trying to reach back to Peekskill on a weekend trip? I recognized the PCARA fox hunt frequency and its 440 MHz harmonic. I think the first thing to do is try to recall how to erase a memory setting so I can start all over again! Who

knows? Maybe I can figure them all out! Take on a science project and try to remember what you have entered. How many channels can you recall?

### Good Listening

Please remember to tune in to the PCARA's Old Goat's Net every Thursday night at 8 pm on the PCARA two-meter repeater: 146.67 MHz with a -600 offset and a 156.7 PL. It would be great if you could join us! (The mic shy can tune in and just listen.) We discuss all aspects of ham radio and broadcasting. You'll hear informal equipment reviews, operating tips and the famous 'question of the week!' Don't be a stranger! Tune in! Comments? Questions? They are always welcomed via e-mail: n2kz@arrl.net.



Until next month, 73 and dit dit from N2KZ "The Old Goat."

# How to mount a mobile

## -N2CBH

Recently I performed an installation of a new, dual-band Yaesu FT-8800 transceiver in the XYL's vehicle — a semi-new 2007 Subaru Forrester. This was my first installation of a detachable-head radio where I actually made use of the remote head.

Like many newer vehicles, the Forrester has no under-dashboard space for land-mobile communications gear. It has a few compartments in the center console that could be removed where a radio might be installed. I decided against this method because we did not want to give up the utility of the spaces in the console. With no under-dashboard space this meant that a removable head radio was the only option.

The Yaesu FT-8800 is a ruggedly-built radio sporting 2 meter and 440 MHz FM operation. The head is detachable and there is a separation kit available. I had



Yaesu FT-8800 dual band mobile transceiver.

received a free YSK-8900 separation kit with the radio as part of a Yaesu promotion. The kit provides a plastic bracket for the radio head so it can be mounted with screws, Velcro, or — a new method — utilizing plastic



Remote head and bracket attached to a Lido LM-100 Vent Mount.

brackets made by Lido. I opted for the Lido plastic bracket method and it worked out quite well. [For more

on Lido mounts see: <http://www.lidomounts.com/hamradiomounts.html>.]

I located the RF deck of the radio under the driver side seat. Well, I say mounted but it was merely placed under the seat and held in place with a few tie wraps.

Next, the separation kit bracket and radio head were married. I used the Lido LM-100 Vent Mount for this. This mount allows you to attach the head of the radio to an available heater vent. It is kind of a universal, one-size-fits-all type of mount that you press into place and locking tabs prevent it from coming back out. There is a pedestal tab underneath for propping the whole affair up, so the display will be easily visible. The mount has an adjustable swivel so that once the remote head is mounted you can position it for easy viewing and operation.

For the microphone I used the Lido LM-1200 Vent Mount Microphone/HT hanger mount. The installation is similar to the LM-100 and the mount has a cutout for the plastic button found on the rear of the Yaesu microphone. I mounted the microphone right next to the remote head. Next I used the cable that Yaesu supplied with the separation kit to connect the radio head to the main chassis. I had to use creative methods to conceal the cable in the plastic interior molding, which allowed me to hide all but six inches.



*Lido LM-1200 Vent Mount Mic Hanger.*

I opted to use a surplus GE remote speaker because the speaker in the radio was difficult to hear under the seat. These great old loudspeakers made by GE and Motorola have mostly outlived the radios they originally accompanied because they produce really nice sounding audio. I try and buy a few at every hamfest but only if they are in very clean condition. There are so many of them still around that you can afford to be discriminating!

Next came the antenna installation, which was a

bit of a challenge. A while back I had replaced the antenna on my own vehicle — a 2001 Jeep Cherokee — and splurged on an NMO trunk lid mount plus a new Larsen NMO2/70B dual band antenna that sells for about \$80.00. That is pretty expensive, so this time I decided to experiment with one of the less expensive Asian-manufactured “knock off” dual-band antennas marketed under the name “OPEK”.

I purchased the same trunk lid mount for the Forrester thinking I would be able to mount it on the rear lift gate. But then I realized that this mount was not going to work because when the lift gate is opened, the top of the gate is recessed under the roofline of the

vehicle. I waited for the next hamfest and purchased an OPEK mount that fastens on the side of the lift gate. Diamond makes a similar mount, but the OPEK model is much less expensive and seemed to work quite well.

Once I had the mount in place, I ran the supplied RG-58U coaxial cable under the plastic molding to hide the cable completely. After a quick check of VSWR on both bands with my trusty Motorola wattmeter, I was almost ready to go, apart from the power connection.

I always opt for connecting the 12 VDC input directly to the battery terminals in a vehicle. This is the only way to get the rated power out of the radio. Cigarette lighter outlets and the internal fuse block make poor choices for two-way radio power. The only disadvantage to direct battery attachment is that you have to remember to turn your radio on and off separately from the ignition switch. And you may get a few scraped knuckles running the cable.

The Forrester has a few spare grommets available in the firewall for additional cabling. A small hole is made in the grommet and the wire snaked through. I used crimp eye-hook connectors on the end of the cables and attached them under the bolt heads of the battery terminal cables. Each side of the line should be



*OPEK antennas and mounts are made in Taiwan. They are less expensive than the more familiar brands.*

fused for protection of the radio and your vehicle's electrical system. Always fuse your radio or suffer the consequences!

The on-air performance of this setup is really quite good. The less expensive antenna and mount seem to be working quite nicely. I was able to work the PCARA 2 meter machine from the far reaches of Orange and Sullivan counties! This had been difficult before with the 10+ year old Comtelco dual band magnetic mount antenna we had been using previously. Nothing beats an all- new installation for good performance. Total cost was \$360 for the Yaesu FT-8800, \$24 for the Lido mounts and \$60 for the Opek antenna and mount.

### Mounting conclusions

The Lido mounting system is a really great idea and seems very rugged, despite being made from injection-molded plastic. The system allows you a lot of flexibility for installing radios in today's cars. Lido also makes other mounts including a flexible goose-neck and a cup-holder mount with an expansion system to hold it in place. The Yaesu FT-8800 is a fine radio which I have had positive experience with in my own vehicle. The antenna setup really surprised me. Despite the much lower cost over brand names like Larsen and Diamond the OPEK mount and antenna are working very well. With all things exposed to the elements only time will tell for long-term performance.

If you are planning a new radio installation take a look at the some of the new technology available for modern vehicles. Consider the radio carefully — I like the Yaesu FT-8800 because the front panel is not crowded, the display is easy to see and the microphone has a number of programmable buttons. Check your vehicle over before purchasing anything — that way you will avoid the mistake I made with the original mount. (Can anybody use an almost brand new trunk-lid NMO mount?)

- 73 de Bob, N2CBH

## Memories of Field Day

When RF stands for radio fantasy...

### From PCARA Update, March 2006

...“Ha ha!” laughed Chris. “You’ve got a lot to learn over the next forty years. Enjoy yourself old man!” And with that, Chris walked out of the tent. The stars were shining over the Field Day site as Chris turned and waved back to Jon. “See you in the future,” he called. The stars shimmered and all that was left was a line of footsteps in the dew-covered grass.

### Flash forward to the present...

A good many years had passed since Jon’s Field

Day encounter with the mysterious traveler named Chris. As this year’s event approached, Jon vaguely recalled the unexpected meeting long ago and realized that some of the traveler’s predictions had come eerily true. Could Chris really have been a time traveler?

A few weeks later, Field Day arrived and memories of past encounters disappeared in the initial rush to get the stations on the air. Dusk settled and many of the visitors had left the Field Day site. Jon was on his own again, in the 20 meter tent and time was passing slowly... too slowly, because at the bottom of the sunspot cycle there were very few stations left to work. With fingers still on the key, Jon’s eyelids began to close... when a feeling of déjà vu suffused Jon and he realized he was no longer alone in the tent.

Looking around, Jon could see a tall stranger silhouetted at the entrance. “Come on in,” called Jon, sleepily. “Visitors are always welcome for the overnight shift. Are you licensed?”



*With a feeling of déjà vu, Jon realized he was no longer alone in the tent.*

“Yes, I am *now*” replied the stranger. “And perhaps you remember me from another Field Day.”

“No,” said Jon. “I’m sorry, but the face isn’t familiar.”

“Oh you’ll remember me,” came the reply. “I’m Chris and we first met forty-odd years ago.”

Suddenly the sleepiness was gone from Jon’s eyes and he remembered the mysterious stranger who helped with logging in the 1960s. “You’re Chris?” he asked. “Chris who came to my first Field Day?”

“The very same,” replied Chris. “I thought I would drop in and see how you’ve been getting along. How’s the band?”

“Terrible,” replied Jon, still rather befuddled by the new arrival. “We’re at sunspot minimum and the band is nearly closed. I may go over to the forty meter station soon.”

“No, don’t go,” said Chris. “We’ve got some catching up to do. What did you think of the last four decades?”

Jon was still confused. “I was just thinking back the other week, and you were right about a few things,” he replied, gesturing toward the radios on the table. “As you can see, everything went commercial, and most of the equipment is from the Far East now. The best gear comes from Japan, but we also have tuners from Taiwan and power supplies from the Philippines.”

A smile crossed Chris’s face.

Jon paused for thought. “And you were right about computers as well. We went from giant mainframes with teletypes to network notebooks that can handle the logging and some of the operating. But how could you know all that stuff?”

Chris sat down in the logger’s chair. “You remembered our last conversation very well,” he said. “And I’ve got some more things to tell you. Did you ever wonder what would happen if someone fine-tuned history?”

Jon sat upright – he was more alert now. “What do you mean, ‘fine-tune history?’” he asked. “What have you been doing?”

“Settle back and I’ll tell you,” Chris replied. “It all began one day in 1904 when I walked into Prof Fleming’s lab at University College in London and made a little change.”

Jon’s eyebrow rose when Chris mentioned the year, but he kept quiet and let Chris continue.

“You may remember the story,” continued Chris. “Prof John Fleming was on the point of discovering the first thermionic device. A few years earlier, he had been a consultant to the Edison Electric Company of London on incandescent lamps and he investigated the ‘Edison effect’ where a carbon filament lamp would have its glass bulb blackened by transfer of something through the vacuum. A metal electrode was known to modify the effect, so Fleming had special lamps made with metal plates. He found that a metal cylinder around the negative leg of the filament gave the strongest current.

It also allowed electrical conduction in only one direction.”

Jon nodded his head.

“What happened in 1904,” continued Chris, “was that our Prof of Electrical Engineering in London was looking for a way to detect radio frequency signals. He had been working with Marconi on the high power spark transmitter in Cornwall that bridged the Atlantic, so he was well aware of the need for a sensitive RF detector. In *your* history, Prof Fleming remembered the ‘Edison effect’ and the special lamps he had

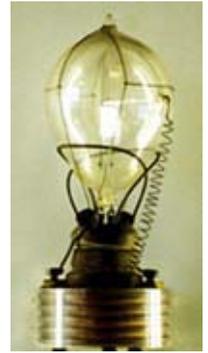
made. He used one of his modified lamps to detect spark transmissions sent across the lab. The experiment was a great success.”

“I remember that story,” said Jon. “Professor Fleming invented the thermionic diode. It was called a Fleming ‘valve’ in Britain because it only allowed current to pass one way. In the USA it was called a vacuum tube.”

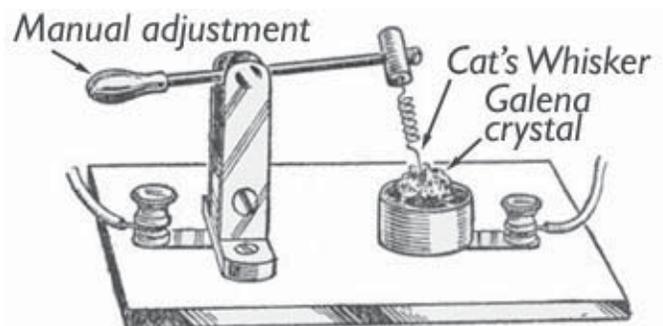
“That’s right,” said Chris. “The Prof applied for a patent in 1904 and went on to improve the design, including use of a tungsten filament. The Fleming valve was used by the Marconi Company as an RF detector in the early days of radio. And a couple of years later in 1906, Lee De Forest took the idea one step further by adding a third electrode to make the Audion. *But I put a stop to that whole thing back in 1904.*”

Jon’s eyebrows shot up. “You did what?” he asked.

“I told you,” replied Chris. “I walked into Prof Fleming’s lab in London, and I **hid all his Edison lamps**. The Prof thought he had those old bulbs from 1883 stored safely away, but when he couldn’t find them, his line of thought changed completely. He’d been investigating chemical rectifiers, and with a little help, he remembered a paper by Karl Braun on the cat’s whisker crystal rectifier. Fleming found that a cat’s whisker on a galena crystal was an excellent detector of RF, and shortly afterward, he moved on from using lead sulfide to the use of pure silicon as the substrate for his detectors.”



*Fleming valve based on the Edison lamp.*



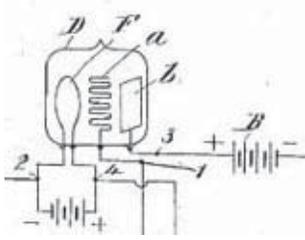
*Cat’s whisker crystal detector employed a semiconducting crystal with a wire point (the ‘cat’s whisker’) resting on it. The crystal was often galena (lead sulfide ore), the wire was phosphor bronze.*

Jon’s eyes were narrowing. “So Fleming didn’t invent the vacuum tube detector. What happened then to Lee De Forest?”

“Oh, I paid him a visit as well,” replied Chris. “In 1906 he was trying to improve the performance of a Fleming point contact silicon diode and somehow or



*Sir John Ambrose Fleming investigated detection of RF signals in 1904.*



Jon remembered that Lee De Forest introduced a third electrode, the grid (a) between the filament (F) and the plate (b) of a thermionic diode.

phone company for use on transcontinental telephone circuits.”

Jon had a confused look. “That doesn’t sound right. I thought Lee de Forest invented the ‘Audion’ by inserting a third electrode into a Fleming vacuum tube, then he went on to produce the first tube circuits for use in radio.”



Lee De Forest Audion as recalled by Jon.

“That’s right,” said Chris. “But after my visits, things developed differently. De Forest collaborated with Fleming and with the Marconi Company. By 1916, they had developed a completely solid-state transmitter that was used on Royal Navy ships, and then when the U.S. joined World War I in 1917, the same transmitters were installed on US Navy ships as well. Not only did that shorten the war, it also put a rapid end to spark transmitters, which were all that Germany had available at the time.”

Jon rolled his eyes. “So at the end of World War I, there were solid state transmitters and spark was dead. Didn’t that have a bit of an effect on 20<sup>th</sup> century history?”

Chris nodded in agreement. “It certainly did,” he confirmed. “Those early solid state transmitters were only good for low frequency and medium frequency operation at relatively low power. But De Forest’s ‘audiode’ amplifiers allowed for the construction of very sensitive receivers. By the time Cole Porter was writing about ‘Those shocks you got... from those little radios’, the receivers of 1934 were really tiny. By then, Howard Armstrong had developed the superhet receiver using solid-state devices. And Howard was also working on FM during the thirties, so he wasn’t just the father of FM, he was also the father of the hand-talkie.”

By now Jon was intrigued. “So by the start of World War II, there were portable transceivers, and

other he added a second point contact. He didn’t really understand what he was doing, but he actually fabricated the first transistor, forty years before Bell Labs’ Bardeen, Brattain and Shockley would have done. De Forest called his device an ‘audiode’, and began marketing it for improved detection of radio signals. Then he realized the device was an amplifier, and he sold the idea to the tele-

they were completely transistorized?”

That’s right,” said Chris. “And not only was the equipment transistorized, but in 1939, TI and Fairchild developed the first integrated circuits, twenty years too soon. Those early flip flops were incorporated into code cracking machines at Bletchley Park and into the Mark I and ENIAC Computers for ballistic calculations.”

“Wait a minute,” said Jon. I thought the cathode ray tube was an essential part of World War II – wasn’t it used in radar and the early computers?”

“That’s correct in *your* version,” said Chris. “But where I’ve come from, thermionic tube technology was frozen in the 1900s. Carbon filaments were fragile and inefficient, so cathode ray tubes were just about unavailable. They’d tried using cold cathodes, but the extra-high plate voltage generated too many X-rays. Radar and television had to wait for the development of flat panel displays, long after World War II was over.”

“This is all very strange,” said Jon, shaking his head. “Why haven’t I heard about these changes?” He pointed to the table. “Everything here developed just as I remember it. Vacuum tube technology brought us through World War II and continued through the 1950s and 1960s. I can’t remember any World War II surplus equipment that was solid state. The transistor wasn’t invented until 1947 and the integrated circuit had to wait until 1959. Cathode ray tubes were still being produced until quite recently!”

“That’s all perfectly true in *your* history,” said Chris. “But when I hid Fleming’s lamps and left him that paper by Karl Braun, I started *another* branch of history. As far as I know, it’s still going on, but in a parallel universe. And when I whispered to Lee De Forest in his sleep about adding a second point contact to the Fleming diode, I might have started a *third* branch.”

“You did what?” cried Jon. “You created two branches of history, just to see what would happen without vacuum tubes? That doesn’t seem very responsible!”

“Calm down,” said Chris. “This kind of thing has been going on for a long, long while. People like me have been making adjustments to history for a long time. The effects are fascinating... and sometimes the results wash over the barriers between parallel universes. Have you never heard a strange call sign on 20 meters that didn’t sound right and didn’t belong to any country you knew?”

Jon nodded. “I think I heard a few tonight!”

“That’s a good example,” continued Jon. “When conditions are right, electromagnetic waves can splash across between parallel universes for a short time. If you’re very lucky, you might be able to complete a contact – but you’ll never get a QSL card. And if you ever get quantum computing and the LHC sorted out, you’ll be entangling photons across thousands of

parallel universes.”

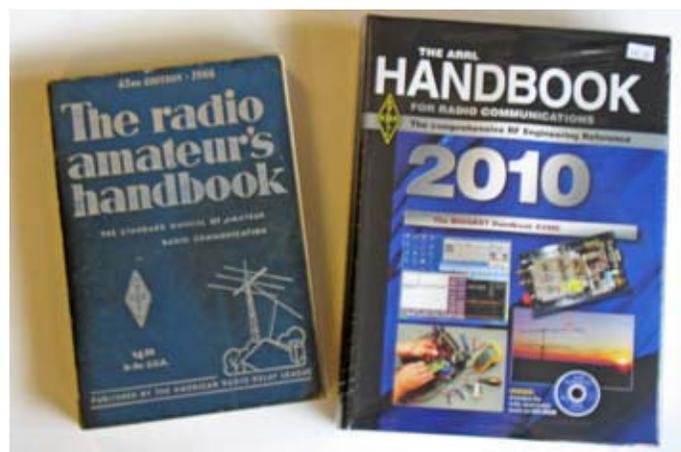
“How many universes?” cried Jon. “You’ve got to tell me more about this!”

“Not just now,” said Chris, gesturing toward the tent flap. “Look, it’s getting light and I’ve got to go. But I’ll be back in a while, and you’ll see how close to the truth I was. Be seeing you!”

And with that, Chris raised the flap and stepped out of the tent. Once again the stars shimmered and a trail of footsteps led across the grass to — nowhere that Jon could see.



*The Large Hadron Collider or LHC at CERN, near Geneva airport on the border of France and Switzerland. Two physicists recently suggested that the Higgs Boson might have traveled back in time to prevent its own creation at CERN. As the Governor said, “I’ll be back...”*



*Chris’s visits to Jon have spanned five decades of radio history. When will he be back?*

Jon shivered in the cold morning air and realized that his mysterious visitor was gone. Had Jon been asleep? Was this another Field Day dream? The only clue was a message left on the logging computer — “DUPE???”

- NM9J

## The Thumb - Norm Fusaro, W3IZ

Let’s consider the thumb for a moment. The thumb’s ability to work with all the fingers on the hand makes it very important to humans. The opposable thumb separates humans (and primates) from other animals and is responsible for most human accomplish-

ments. Because thumbs give us dexterity and allow us to use tools, we have been able to build many wondrous things. Some of these things are as small and intricate as a Swiss watch and as grandiose as skyscrapers and vehicles that allow us to explore beyond our planet. It is absolutely amazing that if not for the opposable thumb and the human brain that controls it, pretty much everything in our world would not be possible.

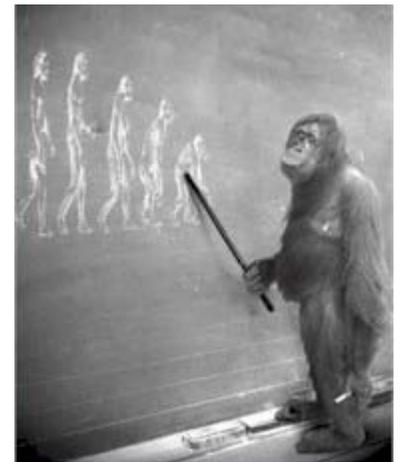
There is a lot of power in the thumb. Pointed downward a thumb could send a gladiator to his death. Hung out along a roadway the thumb can stop a car. Authorities keep subordinates under their thumb to maintain control. The thumb lets us know when we’ve done a good job, calls out baseball players, gives an artist perspective, counts money and can pacify a crying baby. The thumb also has a sinister side.

We can thumb our nose at people, card cheats use the thumb to deal from the bottom of the deck or mark cards with a thumbnail, and the dishonest butcher has been known to place his heavy thumb on the scale.

For as much as the thumb has done to enhance our lives it seems that the index finger has been getting a lot of exercise recently. The index finger is very good at pointing — however a pointing finger has not really accomplished as many positive things as the thumb has.

Sure the index finger may dial a telephone, but without the thumb the telephone would never have been built. Pointing fingers send people away, poke-out eyes and blame others for our condition. In every aspect of our lives we see people pointing the finger of blame rather than accepting responsibility. A kid fails in school not because the teacher taught the lesson poorly, but because he failed to study. A lady scolds herself with hot coffee not because the restaurant did not label the cup — she was scalded because she put hot coffee in her lap. People find it easier to point a finger instead of planting their thumb in their chest and saying “I am the one who will make a difference.” If you ever feel the need to point a finger, remember the thumb and all that is possible because of it. Let’s metaphorically use our opposable thumbs to grip the rope and pull in the same direction.

Credit: The ARRL CLUB NEWS and The American Radio Relay League.



*The opposable thumb separates humans (and primates) from other animals.*

# Peekskill / Cortlandt Amateur Radio Association

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*Newsletter contributions are always very welcome!*

Archive: <http://home.computer.net/~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 the Hudson Valley Hospital Center, Route 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.

## PCARA Repeaters

**W2NYW:** 146.67 MHz -0.6, PL 156.7Hz

**KB2CQE:** 449.925MHz -5.0, PL 179.9Hz  
(IRLP node: **4214**)

**N2CBH:** 448.725MHz -5.0, PL 107.2Hz

## PCARA Calendar

**Sun Nov 1:** PCARA meeting, Hudson Valley Hospital Center, 3:00 p.m.

## Hamfests

**Sun Oct 25:** LIMARC Hamfair, Levittown Hall  
201 Levittown Parkway, Hicksville, NY. 9:00 a.m.

## VE Test Sessions

**Nov 1:** Yonkers ARC, Yonkers PD, 1st Precinct, E Grassy Sprn Rd, 8:30 a.m. Contact D. Calabrese, (914) 667-0587.

**Nov 12:** WECA, Westchester Cnty Fire Trg Center, 4 Dana Rd., Valhalla, NY. 7:00 p.m. Contact Stanley Rothman (914) 831-3258.

**Nov 15:** USMA ARC, Thayer Hall, Rm 306, United States Military Academy, West Point, 2:00 p.m. Contact Joshua Mauldin, (845) 515-4547.

**Nov 16:** Columbia Univ VE Team, 2960 Broadway, 115 Havemeyer Hall, New York NY. 6:30 p.m. Contact Alan Crosswell, (212) 854-3754.

**Nov 20:** Bergen ARA, Westwood Regional HS, 701 Ridgewood Rd, Washington Township, NJ. 7:00 p.m. Contact Donald C. Younger, (201) 265-6583.



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