



PCARA Update



Volume 11, Issue 3 Peekskill / Cortlandt Amateur Radio Association Inc. March 2010

Radio ups and downs

For the 6th time in just under 4½ years, the *PCARA Update* has been selected as the ARRL Hudson Division Newsletter of the Month (for a listing of the previous issues please see: <http://home.computer.net/~pcara/docs/pcud1109.pdf>). The *PCARA Update* has received the March 2010 award. Special **THANKS** and **CONGRATULATIONS** to Karl, N2KZ and Malcolm, NM9J for their outstanding efforts and contributions that helped put us over the top! Whoever said that Olympians are the only ones that win gold!

You *may* have noticed that on the evening of Thursday, February 25, Winter 2010 paid us a visit. The backup 2 meter repeater — Old Faithful — had to be awoken from its long winter nap and pressed into service because the primary site had lost power. It performed flawlessly! (Note: At the time of writing this, I received word that WHUD 100.7 MHz FM, W2NYW/R backup, and KB2CQE/R were QRT, meaning the standby generator has probably run out of fuel. This means that they are dozing and waiting for the LP tank to be refilled or Central Hudson Gas and Electric to restore commercial service to the site).



Greg, KB2CQE found this tree branch was no longer holding up his antenna after the snowstorm of February 25-26.

At my home QTH I didn't escape unscathed. One of the antenna supports for my G5RV dipole suffered some serious damage. When the snow melts, I'll have some antenna work ahead of me! Sounds like an excuse for an *Antenna Party!* (Anyone have a chainsaw?).

- 73 de Greg, KB2CQE

[Footnote - both repeater sites had power restored between 1:30 and 2:00 p.m. on Sunday Feb 28 and operation should be back to normal. WHUD is also back on the air. - Ed.]

PCARA Officers

President:

Greg Appleyard, KB2CQE, kb2cq@arrl.net

Vice President:

Joe Calabrese, WA2MCR; wa2mcr@arrl.net

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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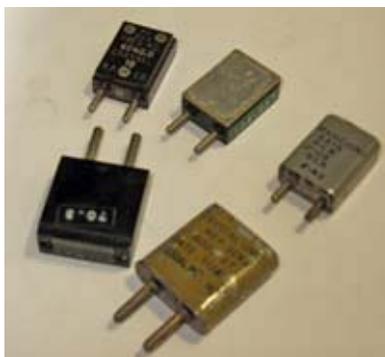
Adventures in DXing

– N2KZ

Life Begins On 40

Straight Key Night 2010 had an amazing effect on CW operators nationwide. So many hams tried pounding brass for the first time in years (or the first time ever!) The fun continued past New Year's Day and has become a growing movement. Now you'll find many of them honing their CW skills on the 40 meter "Novice segment" from 7100 to 7125 kHz. Did you ever think you would see this day?

This renaissance doesn't stop with manually-sent slow speed code. Often, old vintage Novice rigs are used on the air along with old Novice techniques. Who



Crystal control is making a comeback!

needs a VFO? Now, you'll often hear stations, nearby in frequency, making a QSO even though they are crystal controlled. (What's a few kilohertz between friends? I'm on 7105. You are on 7112. I can tune my receiver to hear you! No problem!) I'm even seeing notices on Internet reflectors

offering Novice band crystals for sale or swap. Amazing!

Yes, QRS slow code has become an avid pursuit for a whole gang of new CW enthusiasts! QRP (low power) operators are also enjoying this revival and have been trading plans to modify their home brew gear from traditional QRP frequencies of 7030 and 7040 kHz to the new-found Novice band. No longer do you have to dodge and avoid high powered RTTY and high speed code operators! The Novice band is open and clear! Obviously, the recent removal of international broadcasters from the lower portion of the 40 meter band only fueled this fire more!

Here's a quick guide about where to look for Novice band CW activity:

7104 kHz The Flying Pigs QRP Club,
7106 and 7110 kHz for traditional Novice QRP,
7112 and 7122 kHz The NorCal QRP Club,
7114 and 7120 kHz The Straight Key Century Club calling frequencies,
7116 kHz The QRP-L Club, and
7118 kHz FISTS (Morse Preservation Society) Novice calling frequency.

You can also look for The Sunrise Net daily at 1300 UTC on 7123 kHz hosted by Tom, W4WXA down in Georgia. This 25 kHz (7100 to 7125) has become quite active as a watering hole for slow coders and their Elmers. Now is the time to try CW! No pressure! Very slow code only! Just remember, your new life begins on 40!

In The Middle of the Night

Night owls see things in a different light. Since breaking my leg, I find myself listening to AM radio at the oddest hours. I've discovered a new world of entertainment on the dark side! Programming can be interesting, quirky and quite amusing. The DX possibilities are endless. Welcome to my new world!

Radio has a completely different pace overnight. Rapid news headlines, traffic and weather reports are very hard to find. Long-form talk shows are everywhere and cater to every interest you can imagine. One has lots of opportunities to save their soul, find new vitamin supplements to cure their every ill and discover amazing new work-at-home and make a fortune schemes. It really is an aural carnival waiting for your ears! Here are some suggestions, if you want to take a listen:

Ready to visit the cabaret life of New York City? Try the eclectic and quirky Joey Reynolds Show on local WOR

710 or Buffalo's WWKB 1520. For decades, Reynolds was a Top 40 disk jockey all around the country. He often boldly claims he was the first 'shock jock.' Now he

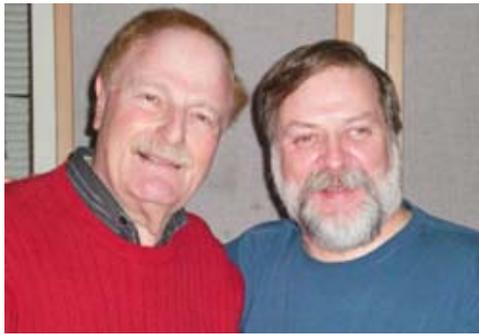


Radio night owl Joey Reynolds

has retooled his talents into something that resembles the old Joe Franklin Show that played for decades on New York radio and TV. Reynolds' show is a unique open-mic showcase of up and coming talent, crazy comedians, kooks hawking new books and oddball performers filled with nostalgia. Reynolds' bold ego is plenty entertaining on its own! One thing for sure: It's very unpredictable and fun to listen to! Look for it on WOR and WWKB starting at 1 am. WOR switches to live news at 5 am. WWKB airs Joey for an additional hour until 6 am daily.

If kazoos and marshmallow fluff have a special meaning for you, WBZ 1030's Steve LeVeille is your kind of guy. From midnight until 5 am every week-

night, Steve becomes Boston's overnight companion to thousands and thousands of listeners. You'll never know if the topic will be serious or silly. He might be heralding a great Red Sox victory or be searching for



Mel Stevens with Steve LeVeille

America's greatest hot dog. You'll also hear thoughtful trivia, spiced with a huge library of sound clips and fascinating song recordings, when his good friend

Mel Simons visits. With a background in hard news and sports reporting, LeVeille is fluent in current events often taking the position of news anchor should a significant event happen overnight. One thing for sure: Steve is a first-class radio entertainer. It's always great radio!

WWVA 1170, from Wheeling, West Virginia, sends very strong signals to our area nightly. Their evening programming is filled with fire and brimstone preachers theatrically screaming the gospel with the vigor of a good faith healer. Very young listeners may find this downright scary! Between these hour-long sponsored broadcasts, you'll often hear reports of local coal mine activity sounding like our school closings on a snowy day. Suddenly you really feel like you are up in the mountains of West Virginia! You need to hear it to believe it!

Looking for a time machine to take you back 60 or 70 years? Simply tune in to CHML 900 Hamilton, Ontario nightly from 10 pm to 2 am to hear an amazing collection of radio broadcasts from the years before the advent of television. You'll hear an endless collection of shows featuring Jack Benny, Fred Allen, The Lux Radio Theatre, Life of Riley, Wild Bill Hickok and The Cisco Kid and many, many more!



AM900
HAMILTON'S NEWS TALK LEADER
CHML

'Zoomer Radio' CFZM 740 Toronto also presents old-time radio between 10 and 11 weeknights with host Brian Peroff. Close your eyes and your imagination will bring all these stories to life! A good time is guaranteed to all!

All of these stations are closer than they seem. AM radio travels hundreds even thousands of miles at night. The stations I've mentioned all send potent signals to our area often with 50,000 watt transmitters and directional antennas. They will be heard! If you can't pull them in wirelessly, they are all available crisp and clear via the Internet. Add some fun to your life! Give these shows a try! The wee hours will never seem lonely again!

The Times, They Are A'Changin'

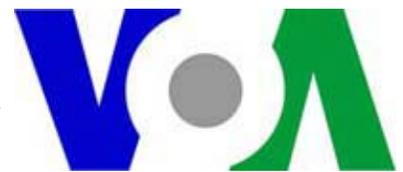
September 30, 2010 will be a big day in the history of American shortwave broadcasting. On this day, The Voice of America will silence their last remaining domestic transmitting facility in Greenville, North Carolina. 'Greenville B' will sign off for the last time in



VOA transmitting site at Greenville, NC.

a cost-saving effort by Broadcasting Board of Governors overseeing The VOA. In the past, The Voice of America also had transmission sites in Delano, California, Bethany, Ohio and Albany, New York. Now the VOA will depend only on transmission sites overseas in Afghanistan, Botswana, Germany, Kuwait, The Philippines, Sao Tome, Sri Lanka, Thailand and the Pacific island of Tinian.

The island of Tinian is actually still considered American soil. It is a little island, north of Guam, best known for being the origination site where the B-29 aircraft Enola Gay and Bock's Car were loaded with atomic bombs to be dropped on Hiroshima and Nagasaki, Japan. Tinian now hosts a large multi-antenna transmission facility for The Voice of America.



I witnessed the power of a Voice of America transmission facility as a child. My relatives had a home less than a mile away from The VOA's Albany, New York installation. When the moisture in the air



VOA transmitting site at Tinian, Pacific Ocean

and on the ground was just right, (usually a light rainy mist,) you could actually hear The VOA sound from the quartz filled rocks in the surrounding forest. It was an eerie echoing kind of audio, but you could certainly hear distinct words and their signature tune 'Yankee Doodle.' Talk about high levels of RF!

Another moment in history has already passed us by: On February 8, 2010, all Loran-C stations were forever silenced. Megawatt **L**ong **R**ange **N**avigation

type C stations have been in operation for decades in the region of 90 to 110 kHz longwave. According to a recent advisory: "The U.S. Coast Guard will terminate the transmission of all U.S. LORAN-C signals effective 2000 UTC 8 February 2010. At that time, the U.S. LORAN-C signal will be unusable and permanently discontinued." Older radio amateurs may remember a similar system, LORAN-A, which used to broadcast on 1750, 1850, 1900 and 1950 kHz at the top of the 160 meter band until the last day of 1980.



USCG LORAN-C transmitter at Jupiter, FL has a 625 foot mast.

I witnessed a LORAN-C facility last year during a trip to Jupiter, Florida (north of West Palm Beach.) As I drove up

Route 1 along the seashore between Jupiter and the next town to the north called Hobe Sound, I was amazed to see a tremendous tall tower on the west side of the road attached to a secured Coast Guard facility. With a little research, I discovered this tower belongs to recently decommissioned LORAN-C station JUPITER. The Martin County (Florida) Amateur Radio Association arranged a tour of this facility last March which is beautifully documented at: <http://picasaweb.google.com/worldradiolabs/LORANStationTourHobeSoundJupiterInlet#>. Take a look at this fascinating installation now silenced.

Until next month, don't forget to try some CW! 73 de N2KZ Karl 'The Old Goat' dit dit.



Noisy world

In the "Technical Correspondence" section of *QST* for March 2010, Steve Johnston, WD8DAS has an interesting letter. Steve suggests that HF stations might be having less success in recent years because of the ever increasing noise level in their localities.

Steve goes on to describe how he made an informal study of Wisconsin Public Radio listener and staff homes using a portable spectrum analyzer, checking MF, HF and VHF. In this regard, it's interesting to note that the AM station for Madison, Wisconsin WHA-AM runs 5 kW on 970 kHz by day but only 51 watts at night, resulting in significantly less coverage.



Steve Johnston, WD8DAS at the tower site for WHA-AM.

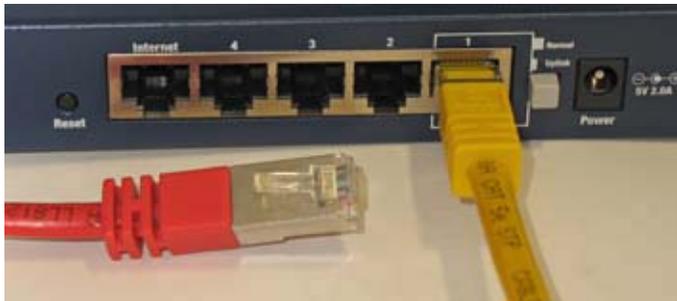
WD8DAS describes how the apartments he investigated were full of RF noise, with the worst offenders being switch-mode power supplies for cell phones and digital cameras. HDTV receivers and DVD players were also noisy. Things were less crowded in larger sized homes and offices,

but the interiors were still 20-30 dB noisier than outside.

Our homes have far more digital devices than ten or twenty years ago. I don't have a portable spectrum analyzer, but I thought I would investigate noise sources in my own home with a Radio Shack DX-398 LW/MW/SW/VHF portable radio, which has a helpful S-meter. Here is my list of worst offenders, with the strongest sources at the top:

GE Energy Smart LED Lamp 10 watts	MF and VHF
Laser printer	MF and VHF
LCD TV	MF
Compact fluorescent lamp	MF
AT&T answering machine	MF and VHF
LCD computer screen	MF and VHF
Canon copier	MF and VHF
Hi-Fi receiver fluorescent display	MF and VHF
Alinco VHF/UHF transceiver	MF

There were many other devices generating noise at lower levels. We really are surrounded by an electronic smog of RF pollution. One noisy item that I had



To minimize noise from Ethernet connections, use shielded twisted pair Cat 5E cable. The cable shield is grounded by spring contacts within the RJ-45 socket.

already eliminated from my own home is Cat 5E unshielded twisted pair cable. As reported in the May 2004 issue of *PCARA Update*, I would recommend substitution of *shielded* Cat 5E for any cable runs that are close to radio equipment.



GE Energy Smart LED lamp is a potent generator of RF interference.

The GE 10 watt LED lamp was a shocker – it produced strong MF and VHF noise that could be heard on the other side of the house. I won't be buying any

more of those! Noise from the other devices could be reduced by moving further away. Low power LED lamps made by Lights of America were completely quiet. The one I took apart after it had failed features a conventional power supply with capacitive voltage dropper, bridge rectifier and three long strings of 20 small, white LEDs in series to build up a suitable voltage.

One of the surprises was how much noise is thrown out by modern Hi-Fi radio receivers – most of this noise seems to be generated by the fluorescent / LCD display plus the control circuitry located behind the plastic front panel. You would think the manufacturers would try to control these emissions to avoid pickup up by the external AM or FM antenna nearby.



The plastic front panel of a modern AM/FM stereo receiver can be a source of RF interference.

My Kenwood TS-870 transceiver has a similar noisy front panel that also radiates strong harmonics from its 20 MHz master oscillator.

For amateur radio equipment there is a clear solution to the problem – make sure that your antenna is well outside the building, clear of all the RF pollution within the home, and make sure the antenna feed that enters the house is via shielded coaxial cable. If you mount antennas in the loft space, bear in mind they may be much closer to sources of noise! This might be especially true for the antennas that PCARA mounted in the roof space at Cortlandt Town Hall – see *PCARA Update* October 2004.

A similar approach can be taken for VHF-FM broadcast antennas. Provided the radio receiver has a coaxial input, locate your FM antenna outside or up in the loft, and use 75 ohm coaxial cable rather than 300 ohm ribbon to feed the signal into the home.

Use of an outside antenna is not so easy for MF-AM broadcast reception. Some radios only have a ferrite bar antenna built-in to the radio for AM. If there

is local interference, the best you can do is move the radio away from the noise source and orient the ferrite bar antenna so it is end-on to the noise. Other radios may have terminals for an external AM antenna. Sometimes this has to be a specific loop antenna provided by the manufacturer, which only has a short feeder and cannot be mounted very far away. One solution I have employed is to extend the loop's twin-wire feeder with some shielded cable, then place the loop antenna on a metal radiator near a window for improved signal strength.



Small frame antenna included with some HiFi AM/FM receivers.

Another approach to improved MF-AM reception is the Terk "AM Advantage" tunable loop antenna. This antenna has a 9 inch diameter loop, much larger than



Terk AM Advantage tunable loop antenna.

the manufacturer-provided loop, resulting in higher signal strength. Instead of using the Terk antenna's twin-wire cable, you can substitute a length of shielded cable connected to a 3.5mm mono jack. This will help avoid noise pick-up from the radio receiver itself.

Radio Shack sells a

similar tunable loop antenna as the 'Grundig' AN200 model. The bottom line is that almost everything electronic sold today pollutes the electromagnetic spectrum to some extent. I think it is time the FCC drew up stronger rules to prevent radiation of interference by *all* domestic electronic devices, whether through the air or over the attached cables. It isn't a difficult problem to design switch-mode power supplies that don't pollute the airwaves—it just needs some incentive.

- NM9J

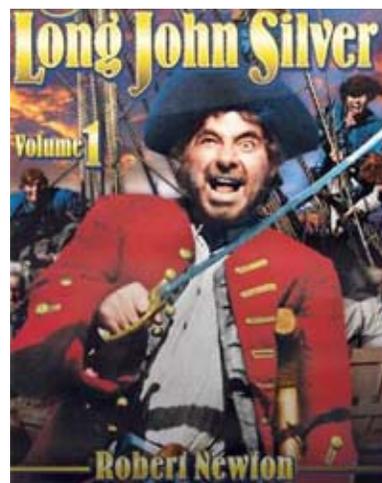
Talk like a pirate - N2KZ

Is there life after crutches? If you look at your sticks for a long time, your imagination will discover all sorts of alternatives! Lets see. There is a double open parallel section followed by a fully-adjustable end piece. It begins to resemble something vaguely



familiar. Lay them down end to end. Aha! Suddenly you can achieve resonance! I think we are talking six meters here!

- Karl, N2KZ



A-ha Jim Lad!

Four stations QRT

The week of February 22nd will go down in PCARA radio history for several reasons. As Greg mentions on the front page, the primary 2 meter repeater on 146.67 MHz went off the air on Thursday Feb 25, just before the Thursday evening net. After rapid consultation with Bob N2CBH, your editor brought up the standby repeater and the net was able to proceed – in fact it lasted longer than usual – thanks to our net control Karl N2KZ.

For those who were listening, it was quite nostalgic to hear the original "K" courtesy tone and full speed CW of the identification. Not only that, but the on-the-hour ID announcement included the outside temperature again, even though the sensor seems to be reading about 15 degrees too high.

The reason for the primary site being off the air was lack of power at the site during the February 25

snowstorm, with large areas of Westchester County and Putnam County also suffering from a lack of 60 Hertz. The power outage also affected the 448.725



Antennas at the 449.925 repeater site. Folded dipoles are for 2 meter standby repeater; vertical colinear is for the 449.925 KB2CQE repeater.

MHz N2CBH/R repeater at the same site.

At least PCARA still had two repeaters on the air — that was until around 9:45 a.m. on Sunday February 28. At that point, Karl N2KZ reported that the standby two meter repeater was off the air. Further investigation revealed that the 449.925 MHz KB2CQE/R repeater was missing, and at a more

significant power level, broadcast station WHUD-FM had gone quiet on 100.7 MHz. Our guess was that the emergency generator on the hill had run out of LPG and we would have to wait until power was restored by Central Hudson Gas and Electric or the generator could be refueled.

Rich, WZ2P reported that not only was his home near the repeater site without power, but Gallows Hill Road was closed and access to the site would have to be via Sprout Brook Road. Power was restored to the primary two meter site around 1:30 p.m. on Sunday February 28 and twenty minutes later, power was also restored to the standby two meter site. Hurrah and many thanks to the power company crews.

Radio Cortlandt TC: On a brighter note, the station christened “Radio Cortlandt Town Center” went off the air at the beginning of the same week, (Feb 22), before the snowstorm blew through. This FM stereo broadcast of 80’s-style music on 94.1 MHz was able to blanket the length of Route 6 from the



Greg, KB2CQE stands alongside the Cummins standby generator at the 449.925 repeater site.

Bear Mountain Parkway to Lexington Avenue and must have been running considerably more power than allowed by FCC Part 15 rules. At the time of writing, 94.1 MHz is wonderfully quiet, leaving plenty of room for flawless reception of WNYC-FM on 93.9 MHz, including its delicate HD-Radio sidebands.

Your editor wonders whether this was a case of the pen being mightier than the sword, since the transmissions had been featured in *PCARA Feedback* articles in January and February 2010. Bob, N2CBH thought it more likely that somebody had accidentally unplugged the power cube for the transmitter and forgot to plug it back in.

Whatever the reason, the suspect antenna was still in place on top of the travel trailer, so the signal might yet reappear. Or perhaps it has shifted frequency?

Hanging by a thread: Another casualty of the storm was your editor’s cable connection. Instead of being stretched taught across the street, the cable drop is hanging low and the Internet connection has been coming and going. Let’s hope it lasts long enough to distribute this newsletter!

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 Mar 7 2010: PCARA monthly meeting, Hudson Valley Hospital Center, 3:00 p.m.

Hamfests

Sun Mar 7: BARA Auction, Westwood Regional HS, 701 Ridgewood Rd, Washington Twnshp, NJ, 1:00p.m.

Sun Mar 21: Southington ARA Flea Market, Southington HS, 720 Pleasant Street, Southington, CT. 8:00 a.m.

Sat Apr 10: Orange County ARC Spring Hamfest, Town of Wallkill Community Center, 2 Wes Warren Drive, Middletown, NY. 8:00 a.m. **Club Table.**

Sat Apr 10: BSA Venture Crew 7373 Hamfest, St John Church Hall, 19 William St., Bergenfield NJ.

Sun Apr 11: Splitrock ARA North Jersey Hamfest, Roxbury Senior Cntr, 72 Eyland Ave, Succasunna NJ. 8:00 a.m.

Sun Apr 25: Mt. Beacon ARC Hamfest, Tymor Park, Lagrangeville, NY. 8:00 a.m. **Club Table.**

VE Test Sessions

Mar 6: Orange Cnty ARC, OrgC Emer Svc Cntr, 22 Wells Farm Rd, Goshen NY. 10:00 a.m. Contact R Torpey, (845) 234-2371.

Mar 7: Yonkers ARC, Yonkers PD, 1st Precinct, E Grassy Sprn Rd, 8:30 a.m. Contact D. Calabrese, (914) 667-0587.

Mar 11: WECA, Westchester Co Fire Trg Cenrter, 4 Dana Rd., Valhalla, NY. 7:00 p.m. Contact Stanley Rothman, 914 831-3258.

Mar 15: Columbia Univ VE Team, 2960 Broadway, 115 Havemeyer Hall, New York NY. 6:30 p.m. Contact Alan Crosswell, (212) 854-3754.

Mar 19: Bergen ARA, Westwood Regional HS, 701 Ridgewood Rd, Washington Township, NJ. 7:00 p.m. Contact Donald Younger, 201 265-6583.



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