



PCARA Update



Volume 6, Issue 6

Peekskill / Cortlandt Amateur Radio Association Inc.

June 2005

Busy times

We're going to be very busy for the next few weeks. We have a Foxhunt on Saturday June 4, 2005, starting from the Beach Shopping Center at 3:00 pm. The foxes are being played by Marylyn, KC2NKU and Ray, W2CH. At the conclusion of the hunt we will be gathering at a local restaurant (to be announced after the hunt) for a debriefing and general celebration.

Field Day 2005 is June 25-26, and we will be operating from Perkins Memorial Point in Bear Mountain State Park. We will begin setting up when the gate opens Saturday morning (~8:30 am). We will be operating from 2:00 p.m. Saturday to 2:00 p.m. Sunday (local). I would really like to see the turnout for Field Day increase this year. Even if you have only a couple of free hours, please consider stopping by Saturday or Sunday. We need to give the operators breaks.

Also, if someone would be interested in organizing a picnic/barbeque for family and friends just let us know. This would be a great opportunity to introduce friends to the world of Amateur Radio. If you need more



Flashback to Field Day 2004 – Adam KC2JNW and Bob N2CBH operating 20 meters. In 2005 there is a youth participation bonus for contacts by ops aged 18 or under.



Mike N2EAB and Joe WA2MCR at special event station **W2D**

information or would like to sign up for Field Day 2005, please contact Bob, N2CBH or any of the officers.

Our other big event this Summer is the Special Event Station at the 4-H Summer Fair at Muscoot Farm on July 9-10, 2005. PCARA will be using the call of **W4H** during the operation of the Special Event/ Amateur Radio Demonstration Station. To sign up or to get more information, please contact Jim, W2JJG at w2jjg 'at' arrl.net.

I hope to see each of you at the June 5th meeting at Hudson Valley Hospital Center at 3:00 pm. Please come by and share your thoughts and ideas!

– 73 de Greg, KB2CQE

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PCARA Officers

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Adventures in DXing N2KZ

Dam: Good Fun!

I've never been terribly good with authority. I tried and tried and tried to convince The New York City Department of Environmental Protection. Could we please operate our Special Event Station, W2D, from the New Croton Dam on May 14th? What harm could a half a dozen of us do? All we wanted was a few hours to celebrate the 100th anniversary of the dam on the air. After weeks of hunting down the correct person in authority at the DEP, I was sternly told: "No. You can't gather there. After all, it's our dam!"

Instead, our club decided to convene at the Blue Mountain Middle School in Cortlandt Manor. A wonderful time was had by all. I could not attend the antenna raising party before the event. My first priority that morning was attending one of my daughter's softball games. After the game ended, I drove to the school, but I made a quick stop in-between.

My curiosity got the best of me. I had to visit the dam. I lived in Croton-on-Hudson for about 15 years and knew the dam very well. The top of the dam had been closed off since the perils of 9/11. I drove up, as close as I could, and sat at the east edge of the dam. The views of the reservoirs above and the park below were astounding. Even though I noticed a newly installed security camera was watching me, I fired up my Radio Shack HTX-100 on ten meters and called CQ for a long time. No answers! I finally gave up and headed for the school happy that I actually did operate from the dam after all.



Karl operates mobile, overlooking the New Croton Dam during PCARA's Special Event activities.

Upon arrival at the school, I saw antennas gently waving in the breeze high above the parking lot. Inside the school, three transceivers were busily sending out our Special Event call sign W2D. Ray Nahl, W2CH, became my savior offering me the use of his amazing Yaesu gear. With one of my straight keys in hand, I worked 11 states in just over an hour. I'm not used to operating with "real and fancy" gear, so this was a treat. At 100 watts, I had no

trouble attracting attention. This is quite different from pleading for a contact with my little QRP rigs at under five watts! Three rigs were up and running and smiles were everywhere! It was a great day for the PCARA. And what a great call sign for CW!

If you want to share the fun, join us on Field Day! PCARA will be on the air Saturday and Sunday, June 25 and 26, from the peak at Bear Mountain. You don't need a license to visit! Everybody is welcome, so come join us!

Live Six on TV

New! Interesting! Different! For the first time since 1949, New York City has a new VHF TV station. WNYZ channel 6 hit the airwaves on Monday night, May 9 broadcasting color bars and a test tone. After ten days of testing, it was time for the big premiere. Early Friday night, May 20, WNYZ began regular programming offering a mix of Spanish language hip-hop videos, bad infomercials, live call-in psychics and informal talk shows, all with a public access feel.

It's homebrew, low budget television with a kooky eclectic style. Transmitting with only three kilowatts visual power from a tall building in Long Island City, WNYZ can be seen throughout the metropolitan area with a good TV antenna. No antenna? You can catch their antics online at <http://www.tv6newyork.com>. It may be just a novelty act, but it's fun.

WNYZ is not just a TV station. It's an FM radio station, too! Many FM radios can receive channel 6 audio on 87.75 MHz, so it's easy to hear the audio of WNYZ wherever you go! WNYZ is doing something different.

Instead of broadcasting audio in TV stereo, they are using the FM standard for stereo and the wider (and louder) FM standard of deviation. Dualcasting is their goal. WNYZ promotes itself as both TV6 and 87.7 FM. It's an interesting approach. I have seen other channel 6 outlets take advantage of their proximity to the FM band, but I have never seen a channel 6 employ the FM variety of stereo. Take a listen or watch for a while and enjoy this station as it evolves before your eyes!

Skip Away

TV E-skip time is here again. For adventurous viewers, who still use TV antennas, the fun has already begun. When you see horizontal lines or bars and rolling beginning to appear on channel 2, the TV band is about to open. TV stations from 500 to 1500 miles away can be seen, especially when you tune to the unused lower VHF channels. (In the New York City area, the place to tune is



Dam Cam



Off-air reception of WNYZ, Channel 6. (Photos by N2KZ)

channel 3.)

Low band VHF TV E-skip behaves much like the six-meter ham band, and you get pictures as a bonus. The most frequently seen visitor in our area is channel three WEDU from Tampa/St. Petersburg, Florida with PBS programming. Conversely, if you see E-skip on your TV, six meters should be wide open for contacts, as well. Double your fun! Watch while you operate! Listen for beacon transmissions on ten meters and six meters for a good indication of what activity might lie ahead. Often everyone is listening and not transmitting! The beacons are an easy way to see what is really going on! Use them wisely to your advantage!

I often enjoy E-skip openings simultaneously watching three TV sets each connected to its own antenna. One antenna points south, another points west and the third points southwest. During a powerful opening, you may see a different program on each set! You have to be really on your toes when ID time comes around at 28 and 58 past the hour. This is the time stations will air local commercials and station IDs.



Watching E-skip openings on multiple TV sets with three different TV antennas.

Thunderstorms will often excite the E-layer allowing skip to occur. Local stations will often interrupt programming to announce severe weather using local weather maps and station logos. Weather special reports make E-skip stations so easy to identify! It's like the distant TV station is broadcasting only to say, "Here we are!" DXer Ryan Grabow has created a wonderful resource for identifying E-skip TV: a set of maps of the continental United States showing the location of every television station, on channels 2 through 6, along with their logos. Take a look at: <http://www.egrabow.com/gallery/>. See a stylized looking "3" on TV? Match it up on the map and you have your ID!

One twilight evening, I saw French language programming rolling in from Regina, Saskatchewan. A frolicking game show was fading in and out, but I caught a clear CBC logo and some mentions of Regina. I was inspired to become E-skip!

A friend of mine at work, Lonnie Juli, NY2LJ, loaned me a six-meter HT capable of both CW and SSB. Using just the HT's collapsible whip antenna, I managed to work three stations in Michigan in rapid succession. It was amazing! I was using a battery-powered rig operating only with two watts with a measly excuse for an antenna. One station sent me a 579 signal report! Now I know it's called the "magic band" for a reason!

DSL Challenge

New technologies bring new challenges. The world of high-speed Internet access has finally become available in my neighborhood.

The difference in data speed is remarkable. Verizon not only brought me fast data delivery, but a completely new array of RFI (radio frequency interference.) From DC to 350 MHz, Verizon's DSL interface unit spews powerful harmonics and products everywhere throughout my house. These spurious signals were especially devastating to my VHF-TV reception. My trusty Lafayette VHF/UHF log periodic, circa 1968, was rendered useless. It's high gain snares DSL birdies like crazy!

My solution was to revive an old compact Finco antenna I bought in the 1970s when I worked at Arrow Electronics. After some experimentation, I found a spot in my attic where I could null out most of the DSL hash and still receive a reasonable signal. It is amazing to me that computer devices can radiate so much noise and still be legal to market. Thankfully, my digital TV reception, mostly on UHF channels above 350 MHz, was left intact. After a couple of hours of work, I had another TV antenna in place (XYL: "Another one?") and almost clean pictures once again.

Code on the KOB

In the golden age of Morse code, professional telegraphers treated their sending instruments with honor and respect. Your key or bug was as personal as a custom fit suit. To alleviate conflict, and to retain carefully selected settings for tension and play, operators often mounted their keys on a piece of wood for support. When the day was done, you could easily pack up your key and take it with you. Morse operators called them KOBs, standing for Key On Board.

The tradition continues. The design I have adopted is fabricated from an 18-inch long piece of 1x6 construction wood. This length provides ample room to support your key, the ball of your wrist, and your forearm comfortably. The most attractive KOBs were made of fine-grained cedar, although a clear piece of pine will do nicely.

The design is simple. Mount your key or bug at one end of the board. Use brass or stainless steel mounting screws for a nice touch. I drill a diagonal hole in the top of the board and run the connector cable through it acting as a strain relief. It is a standard design that works well.

For casual Morse conversations, I have no need for fancy electronic keyers or paddles. I greatly prefer the stick shift of CW: the simple straight key. Two basic keys are highly recommended: The Ameco K-4 (still available new at \$16.95) and the classic black Navy spark proof straight key (available as a surplus item.) The Navy key was designed with a tight insulating cover over the contacts to prevent operator shock and keep out dust. In the old days, keys would switch tube currents to send their signals. For safety, the contacts were sealed away to safeguard operators and prevent ignition around potentially flammable or explosive environments.

My favorite key is a Navy spark proof that my Dad gave me. It has been a companion for my trusty Heath HW-16 for many years. I believe this key was originally part of a pirate ham station my Dad and my Uncle John experimented with back in the mid 1930s. From a small

house in Brooklyn, they claimed to be W2JZ. I brought legitimacy to the family about 65 years later when I became licensed as N2KZ! They say, "You can't take it with you." Well, with a nicely mounted KOB, you certainly can!



Karl's "Key On Board" connected to a Tuna Tin 2 QRP transmitter.

Broken heart, broken part

My most endeared dipole, the one I use for 30 meters, split in half recently. I knew something was very wrong right away. I clicked on my Oak Hills Research QRP rig and it was quiet as a mouse. I said to my daughter: "I've never heard the band so quiet!" For good reason! One look out the window and I felt blue. The center ceramic insulator snapped in two and the antenna pulled itself apart. Have you ever, ever seen a ceramic center insulator break?

It's impossible to repair this design without shortening the elements, so I had to remake the entire antenna. A couple of hours of work later I hoisted the newly built dipole up into the air complete with new insulators. As Jackie Gleason used to say: "And away we go!" I'm thankful every time I get on the air that I've got it all together (ceramically!)

Until we meet again,

– 73 de N2KZ "The Old Goat" dit dit



Dealer Desert

Two years after Ham Central closed its Poughkeepsie doors, our part of the world sometimes seems a bit of a radio desert. The closest dealers – KJI Electronics and Lentini Communications – require a long trek to Caldwell NJ or Newington CT respectively.

Exhibiting at Bergen ARA Hamfest was new dealer **Radio Oasis**. George, K2ZZ carries Alinco Radios, Astron Power Supplies, Alpha Delta antenna components and TE Systems' RF amplifiers as well as the usual connectors and antennas. Radio Oasis is located in the dealer desert of eastern Westchester. Call K2ZZ on (914) 533-2758.



Fast Field Day facts

One of the top operating events of the year is Field Day. Details, rules and forms are available at the ARRL web site <http://www.arrl.org>, but here is a very brief summary of the rules as they affect PCARA.

When: June 25-26 1800z Sat-2100z Sun. (For stations setting up before 1800z, 2:00 p.m. EDT Sat – 2:00 p.m. EDT Sunday).

Where: Bear Mountain State Park – Perkins Memorial Point – Picnic Area.

PCARA Entry category: Class **2A**, meaning club or group portable, no commercial power. Two simultaneous stations – may also add one GOTA station and one VHF-only station (>=50 MHz)

Exchange: **2A ENY** (East New York section)

Bands: All amateur bands, with the exception of the 60, 30, 17, and 12-meter bands.

Modes: Phone, CW and digital modes on a single band are counted separately.

Points: Phone contacts – one point each. CW and digital contacts – 2 points each.

Power multiplier: 2 (for using <150 watts)

Bonus points:

100 points for each of the following:

- 100% Emergency Power
- Media Publicity
- Public Location
- Public Information Table
- Message Origination to Section Manager
- Message Handling (10 points each)
- Satellite QSO
- Alternate Power
- W1AW Bulletin
- Non-Traditional Mode Demonstrations (up to three)
- Site Visitation by an elected governmental official
- Site Visitation by a representative of an (ARES-served) agency
- GOTA maximum achieved (100 QSOs)
- Web submission (of Field Day entry—50 points)
- **New!** Field Day Youth Participation (20 point bonus for each QSO completed by person age 18 or below, max 100 points)

Don't forget! PCARA Annual Raffle draw at Field Day on June 26, for Icom-2100H 2 meter mobile transceiver. Tickets still available from NM9J.

Dam Special Event

On Saturday May 14, PCARA celebrated the hundredth anniversary of completion of the Croton Dam and the 5th anniversary of PCARA.

Members arriving at Blue Mountain Middle School on Saturday morning found that Bill Machonis' Technology Lab had been rearranged since the club's last visit. The amateur radio equipment had been stored and the antenna feeders were tucked away behind local area network cables. New windows had been installed in the room, with screens that also prevented easy entry of any cables.

The first order of business was antennas. After making sure that the roof-mounted trap vertical was working on 20 meters, the team made use of nearby trees and the school flagpole to install full-size and half-size G5RV antennas.

For the 20 meter station, Ray W2CH's Yaesu FT-897 was put to good use. For 15 meters, Joe WA2MCR's TS-530 was connected to the half-size G5RV while on 40 meters the NM9J IC-706MkIIIG was running on the full-size G5RV. To minimize interference, W3NQN bandpass filters previously used at Field Day were inserted into the antenna cables.



New Croton Dam on May 14 – photo by Karl, N2KZ.

All three stations were using the special event call **W2D**, representing **Westchester's number 2 Dam**. (One hundred years ago, the New Croton Dam replaced the original Croton Dam, which is now submerged beneath the waters of the Croton Reservoir.) Karl, N2KZ pointed out that W2D is an excellent callsign for CW operation and proved it by working a bunch of CW stations on 20 meters, including some on low power. Karl also paid a visit to the Dam approaches with his 10 meter mobile station, but found no takers on 10 meter CW.

HF conditions on May 14 were distinctly mixed. The sunspot numbers had been rising during the week, and were at 91 on Saturday, but a coronal mass ejection



Ray W2CH and Marylyn KC2NKKU at the 20 meter station, with Greg KB2CQE and junior op Ben.

had left the sun on May 13th and hit Earth's magnetic field on May 15. This produced a major magnetic storm with aurora and disruption of HF conditions.

On 40 meters the band would open to Virginia, West Virginia, Ohio or Pennsylvania for 30 minutes then go quiet for a while. Best DX was Missouri. On 20 meters, the band was open to Florida, Tennessee, Kentucky, Indiana, Illinois and Minnesota. Fifteen meters was rather quiet but Joe was able to work as far as Arkansas and Louisiana, plus several DX contacts to Europe and the Caribbean.

At the end of the day, a total of 158 stations successfully worked Special Event Station W2D and qualified for the commemorative certificate. Two weeks later, over 38 QSL cards had arrived at the PCARA P.O. Box, requesting a certificate. The first batch of certificates has already gone out in the mail.

Thanks to all the PCARA members who helped with setup, operating and support including: W2CH, KC2NKKU, N2CBH, WA2MCR, N2EAB, W2JJG, KB2ZRJ, KB2CQE and N2KZ.
- NM9J



Sample certificate mailed out to people who worked W2D.

Of mice and clocks

PCARA Update readers may recall that back in February 2003, your editor was describing his hunt for the perfect timepiece. In an article entitled “The mouse ran up the atomic clock”, I pointed out that so-called “atomic clocks” don’t really have a cesium frequency standard inside them, but instead pick up 60 kHz radio transmissions from WWVB in Fort Collins, Colorado then decode the binary-coded-decimal signals to display the accurate time-of-day. Those signals are derived from the National Institute of Science and Technology’s Atomic Clocks.

“Atomic clocks” sold in the U.S.A. can usually be set to one of four or five time zones and will adjust automatically when the clocks spring forward and fall backward for daylight saving time. One of the difficulties I encountered was finding an “atomic clock” for the radio room that could display Greenwich Mean Time, also known as UTC. I had come across an MFJ-120 wall clock that defaults to GMT when first powered up, but that model is no longer available. Since then, I have come across two other models that you may find suitable for the radio room.

The first is the MFJ-133RC “Dual Time Atomic Travel Clock”. This is a small, digital clock, suitable for the desk top. The main time display can be set to one of four U.S. time zones, just like most other atomic clocks. However, top right there is a smaller “Time II” display that can be set to any offset you like – including 4 or 5 hours in advance of Eastern time for GMT. The Time II display can be set to 12 or 24 hour format and it has a DST (daylight savings time) setting that is independent of the main display. This is exactly what is needed for a 24 hour GMT clock – turn 24 hour display on and DST off.

Since the MFJ-133 main display is set to local time (Eastern time in our case), the clock checks at 2:00 a.m.



MFJ-133RC “Dual Time Atomic Travel Clock” with Time II display.

every night for the WWVB 60 kHz signal in order to resynchronize. This is better than my older MFJ-120, which tries to synchronize at 02:00 GMT – late evening here – and gets confused by TV time

bases. List price for the MFJ-133RC is \$29.95. See <http://www.mfjenterprises.com>.

More recently I came across another clock that can be set to GMT. La Crosse Technology’s WS-8007U “Moon Phase Clock” is a large digital clock suitable for hanging on the wall or standing on a desk. Digits for the clock display are 2 inches high. The clock defaults to Eastern Time when first powered up, but there is a choice of

thirteen different time zones available, including Greenwich Mean Time. Daylight saving time defaults to “On”, but can be easily turned off, and the 12/24 hour setting should be changed to 24.

In addition to the large time display, the “Moon Phase Clock” displays day and month, weekday (TUE), inside temperature and current phase of the moon. There are eight possible phases on the LCD display that change



LaCrosse Technology WS-8007U Moon Phase Clock.

as the moon waxes and wanes. Incidentally, the weekday display can be changed to show clock seconds if you prefer.

La Crosse’s Moon Phase Clock is available with an oak or cherry wood finish. List price is \$39.95, though I paid a lot less at Marshalls. Some other models in the La Crosse range also have 13 time zones with GMT – check out <http://www.lacrossetechnology.com> and <http://www.salestores1.com/lacrosse.html>.

- Malcolm, NM9J

Bergen ARA Hamfest



PCARA members at the BARA hamfest club table on Saturday May 28. L to R: Alan, Marylyn KC2NKU, Joe WA2MCR, Mike N2EAB, Ray W2CH.

PCARA Foxhunt Rules

Saturday June 4, 2005

1. Transmission – FM simplex on 146.565 MHz, horizontally polarized.
2. Transmissions start at 3:00 p.m. for 5 minutes, followed by 5 minutes off. Second transmission commences at 3:10 p.m. 3 minutes on, 7 minutes off. The fox will not move during this time. This cycle repeats at 10 minute intervals until the last transmission ends at 4:30 p.m. when the fox will announce its location.
3. The opening transmission will include a time check for watch synchronization.



The PCARA fox returns to the airwaves on Saturday June 4.

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

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

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

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

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

9. Upon a contestant finding the fox, please do not shout or in any way give the location away to other contestants. Report your name/callsign to the fox and retire to the place of refreshment immediately. This will ensure that other contestants do not "discover" the fox because a group of people is hanging around nearby. It is requested that you maintain radio silence even though the fox has been found and the fact that you have found the fox should not be revealed to anyone until the place of refreshment has been reached.

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

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

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

Dayton Gallery

Not only Bob N2CBH but also Ray W2CH and Marylyn KC2NKU attended the Dayton Hamvention over May 20-22 2005. Ray described some terrible delays during the drive to Dayton, but was able to bring back some interesting pictures as shown below.



The CQ Magazine booth at Dayton Hamvention 2005 where Ray W2CH and Marylyn KC2NKU said hello to Editor, Rich Moseson, W2VU.



This outdoor table at Dayton had a dummy bomb used for Air Force training. Marylyn, KC2NKU at left taking a photo.



Icom's new IC-7000 transceiver on display. This is an HF-VHF-UHF transceiver, a little smaller than the IC-706MKIIG. It has a multi-color display and puts out 35 watts on 70cm. The front panel is detachable for remote mounting. Ray reports that it should sell for about \$1500.00.

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.

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

Sat June 4: PCARA Foxhunt, Beach SC, 3:00 p.m.

Sun June 5: PCARA June meeting, HVHC, 3:00 p.m.

June 25-26: Field Day, Bear Mountain

July 9-10: Special Event Station **W4H**, Muscoot Fm.

Hamfests

Sun Jun 5: Hall of Science ARC Hamfest, Flushing Meadows Corona Park, Queens NY. 9:00 a.m.

Jun 11-12: Newington ARL Hamfest Weekend, Newington HS & ARRL, 605 Willard Ave, Newington CT.

Sun Jun 12: LIMARC Hamfair, Briarcliffe College 1055 Stewart Avenue, Bethpage NY. 9:00 a.m.

Sat Jun 18: Raritan Valley RC Hamfest, Piscataway HS, Hoes Ln & Behmer Rd, Piscataway, NJ. 7:00 a.m.

VE Test Sessions

Jun 5: Yonkers ARC, Yonkers PD, 1st Precinct, E Grassy Sprain Rd, 8:30 a.m. Contact D. Calabrese, 914 667-0587.

Jun 13: Split Rock ARA, Hopatcong HS, Hopatcong NJ. 7:00 p.m. Contact Sid Markowitz, 973 724-2378.

Jun 17: Bergen ARA, Westwood Reg HS, 701 Ridgewood Rd., Washington Twnshp NJ. 8:00 a.m. Contact Donald Younger 201 265-6583.

Jun 20: Columbia Univ ARC, Watson Labs, 612 W 115th St. New York, 6:30 p.m. Alan Crosswell, 212 854-3754.

Jun 21: PEARL Tech Class, First Presbyterian Church, 411 Rt 6, corner Secor Rd & Rt 6N, Educational Bldg, Mahopac, NY. 5:30 p.m. Contact Malcolm, NM9J.



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