



# PCARA Update



Volume 8, Issue 5

Peekskill / Cortlandt Amateur Radio Association Inc.

May 2007

## Maytime mixture

The next PCARA Foxhunt is scheduled for Sunday, May 20<sup>th</sup> 2007, at 3:00 p.m. As in previous foxhunts, we will be starting from the Beach Shopping Center in Peekskill, and sign-in will begin at 2:30 p.m. Malcolm, NM9J and Joe, WA2MCR are playing the foxes. At the conclusion of the hunt we will be meeting at a local restaurant to share stories and award certificates. As always, **anyone and**



**everyone are welcome!** Please consider joining us. For more information, please see our website: <http://www.pcara.org>. [Rules are on page 7, -Ed.]

PCARA has been invited by Jeff Tkacs, Cortlandt Homeland Safety Coordinator to participate in a MCI (Mass Casualty Incident) Drill on Saturday May, 5, 2007. The event will occur somewhere in the Buchanan / Verplanck area, and would require PCARA to provide supplemental communications between Cortlandt Town Hall and one or two critical locations near the incident. To sign-up please contact Joe, WA2MCR at [wa2mcr@arrl.net](mailto:wa2mcr@arrl.net).

This year Field Day 2007 will be held on the weekend of June 23-24, 2007. To sign-up and to find out where Field Day will be held this year, come to the May meeting at Hudson Valley Hospital Center.

I look forward to seeing each of you at the May 6<sup>th</sup> meeting, at 3:00 p.m. at Hudson Valley Hospital Center.

- 73 de Greg, KB2CQE

## Repeater update

On April 23, Bob N2CBH reports that the 2 meter repeater antenna had wound itself around the light bracket on the tower once again, and the VSWR had increased to an unpleasant value. Bob changed the antenna back to the pair of vertical dipoles above the roof and temporarily removed the receive preamplifier.

As a result, the 'crackly' sounds on the repeater have been chased away and weak signals have become much more readable.

## Net night

Don't forget that the PCARA weekly net now takes place on **Wednesday** evenings at 8:00 p.m. You can call into the net on the 2 meter repeater, 146.67 MHz, offset -0.6 MHz, 156.7 Hz CTCSS.

## Contents

Maytime mixture - KB2CQE	1
Repeater update	1
Adventures in DXing - N2KZ	2
Siren song	4
Hamfest report	6
PCARA Foxhunt Rules	7

## PCARA Officers

President:

Greg Appleyard, KB2CQE      [kb2cq@arrl.net](mailto:kb2cq@arrl.net)

Vice President:

Joe Calabrese, WA2MCR;      [wa2mcr@arrl.net](mailto:wa2mcr@arrl.net)

Secretary/Treasurer: *open*.



*Mt Beacon Amateur Radio Club hamfest was held on Sunday April 22 in excellent weather. Hamfest report on page 6.*

# Adventures in DXing

- N2KZ

## I Have Seen the Future

Over-the-air analog television is scheduled to take its final breath on or before February 17, 2009. By federal regulation, all analog television broadcasting must cease. Television will only be broadcast digitally from that day forward. It will be quite a landmark day in the history of television broadcasting. Not only will the mode of transmission change, the frequencies used will change dramatically, as well.

In the New York City area, eight out of the fifteen major over-the-air broadcasters will flip channels during the analog to digital transition. WCBS-DT, now on 56, will revert back to its original DTV channel 33. WPIX will vacate 33 and use channel 11 as its digital home. Similarly, WABC and WNET will also switch digital transmissions to their current analog channels 7 and 13 respectfully. A couple of UHF stations will do the same: WLIW 21 will use 21 for its digital future. WPIX 31 will also swap analog for digital.

WNBC will remain on DTV channel 28. Fox's WNYW will continue on channel 44. WNYE, the City of New York's educational channel, will drop analog channel 25 and remain digitally on 24. WWOR will vacate channel 9 and continue on their current DTV channel 38. Spanish speaking WXTV will close analog channel 41 and use channel 40. WFUT will move from analog 68 to digital 41. WNJU will be using channel 36 after the transition. Finally, WLNY, the independent TV station from Long Island, will move digital operations from channel 57 to channel 47. You'll need a chart to follow all these changes! You will also still need a VHF/UHF antenna. Early plans to transmit DTV only on UHF channels did not bear fruit! However, television broadcasting will be limited to channels 2 through 51. Channels 52 through 69 will be reallocated to other uses. Remember when television was broadcast as high as channel 83?

One interesting aspect of this momentous event: ABC is in a heated argument with New Jersey Public Broadcasting Network (NJN) over WABC-DT's pending use of channel 7 for digital broadcasting. NJN's WNJT, licensed to Trenton, New Jersey, has been allocated channel 8 for its long-term digital transmissions. WABC must move from their current DTV channel 45 to protect digital allocations on 45 slated for Pennsylvania and Connecticut. If WABC-DT operates on channel 7, WNJT-DT, at least in theory, will be limited in its useful coverage area. NJN and WABC are searching for a compromise to eliminate interference between these two broadcasts. One solution was to allow WNJT to collocate antennae with WABC at Four Times Square in



*What will you see on your analog TV after 2009?*

Manhattan. The FCC has yet to decide this dilemma.

How will things look when the transition is over? To continue to see anything over-the-air with an analog TV, you will need a digital tuner or a converter box. The Federal Government has established a program to provide needy viewers with \$40 credit vouchers towards the purchase of up to two DTV converter boxes per household! From January 1, 2008 through March 31, 2009, everyone in America will be eligible to apply for and use these vouchers. The Department of Commerce has \$990 million allocated for this program. Another \$510 million is available, if necessary! The first allocation alone would provide vouchers to cover 2,465,000 converter boxes! One would think it would be more cost effective to simply buy a new TV!

The voucher plan has a fundamental problem: DTV converter boxes are nearly non-existent. DTV set



*Samsung HDTV tuner costs \$180.*

top box tuners are pricey and usually need to be special ordered by mail. A couple of manufacturers also offer computer cards capable of DTV reception. Another option is to buy a DVD recorder, or similar device, that includes a DTV tuner. Anyone looking for an inexpensive converter box will have a challenging hunt! Radio Shack offered a stand-alone DTV tuner, under the Accurian brand name, for about \$90 last year. They are now extremely hard to find.

Cable television viewers will probably not notice any change at all. Analog television signals will continue to pour out of their cable set top boxes for a long time to come. DirecTV and Dish Network users are no different. No new converters or televisions will be needed in these households. It will only be the folks

who still use antennas for reception (including me!) that will have to deal with digital conversion havoc! Will CBS, NBC and Fox still call themselves 2, 4 and 5? Probably, since their programming won't move off those channels on most cable TV systems.



TV DXers will enter a new world. Although some exceptions exist, the low-band VHF television spectrum, channels 2

through 6, will be nearly empty of domestic broadcasting. When E-skip season arrives in June, July and December, international analog TV will sporadically drift in from The Caribbean, South America and



CUBAVISION ( National Network ) Cha 6 & 8 in Havana City

Canada for the first time without domestic interference. (Canada has yet to announce a plan for complete transition to DTV.) If you always wanted to log CTV, Venezuela's RCTV or Cubavision, wait until the summer of 2009! Turn on your old analog TV and wait for results! It might be all you will ever see!

### Feel The Power!

My seven year career in amateur radio has been based upon vintage equipment. To this day, my main rig is a Heathkit HW-16, built in 1968, with my Dad looking over my shoulder. All my other gear is meek or adopted. My office shack is peppered with QRP kits. You will find almost up-to-date equipment in my world above 50 MHz. I use a ten watt Yaesu FT-690RII, from the late 1980s, on 6 meters and a nearly current Icom IC-T7H handi-talkie on 2 meters and 70 cm. Never have I crossed into the world of three digit wattage, until now!

My good compadre Joe, WA2MCR, has led me into a world unforeseen. At last month's PCARA meeting, Joe pulled his Kenwood TS-530S out of his car and simply said "try this!" My hearty and sincere thanks, sir. The experience has been eye-opening. I told Joe that using his rig is much like an old blind man enjoying his first pair of glasses. Wow! What a difference this rig makes!

Joe's Kenwood TS-530S excels in many ways. Besides the profound and mighty power of its transmit-

ter (a hearty 180 watts CW,) the receiver is equally feisty. It has introduced me to features previously unknown. One obvious lesson was learning that receiver sensitivity is only one facet of successful reception. Joe's TS-530S is fitted with a superb 500 Hz CW filter. When band conditions become crowded or noisy, this accessory really opens the curtain to your success. I'm used to using a natural analog filter on each side of my head to separate signals! In concert with this tight filter is a wonderful IF shift control letting you actually steer the passband of you receiver to your wishes. Kenwood may have designed this rig in the 1980s, but it was revelatory to me!

I also found both receiver and transmitter offer incremental tuning controls. These are fine business when tuning your CW offset to grasp the attention of the station you are trying to work in a pileup. The variable AGC and noise blanker became quite handy, as well. I did not experiment with the front panel accessory with a curly cord and a large push button. I still don't understand what VOX and PROC do. MIC GAIN obviously has something to do with N2EAB. USB and LSB seem to be some sort of wide band settings to



Kenwood TS-530S on loan to Karl from WA2MCR.

initially find stations (hi, hi!). Tuning this rig is a dream. It features a silky-smooth vernier tuning dial along with a blue digital display. It's the best of both worlds and highly accurate.

One thing became apparent when I first tried Joe's rig on 30 meters. When you use a rig with this much power you have authority! I am used to 5 watts of QRP CW on 30 meters. Pleading for attention becomes a lifestyle! Using 180 watts puts a powerful punch behind your call, especially during rare station pileups. Simply put: You are heard! It also begged for better antennas. Having a receiver with such big ears brings understanding why many operators erect significant directional beams for their enjoyment. Suddenly my adequate dipoles don't seem viable anymore. You want to hear more and more! No longer is your logbook filled with W, K, and N callsigns! The TS-530S is truly a passport to international operation!



- Until next month,  
happy trails de N2KZ Karl.

# Siren song

During April 2007, the Indian Point nuclear plant at Buchanan was in the news on more than one occasion. Most PCARA members live within a few miles of Indian Point, and have a keen interest in what goes on there. Since **1500** people work at Indian Point, most of us know someone employed by Entergy, and recognize that they would never do anything to endanger the thousands of people who live, like they do, in the surrounding area. The Nuclear Regulatory Commission (NRC) defines a 10-mile radius Emergency Planning Zone as the area surrounding any nuclear power plant.



*Indian Point nuclear power plant as seen from across the Hudson River.*

On Friday April 6, smoke rose from the plant when a high-voltage transformer caught fire. The transformer, adjacent to Indian Point 3, raises the steam-powered turbine generator's AC voltage from 22 kV to 345 kV for transmission over the electrical grid. Entergy's own fire brigade extinguished the flames, which had begun at a ceramic bushing (insulator) in the transformer. The fire forced Indian Point 3 to shut down, taking 1,000 megawatts of capacity offline.

Those high voltage transformers do not come cheap! Your editor once lived near a large transformer yard at Norden, in northwest England, and, on more than one occasion, saw the lights dim, followed by smoke and fire engines as another transformer went up in flames. The replacement cost was usually *£1 million* per transformer, over twenty years ago.

Shortly after the transformer incident, Indian Point was in the news again when its new emergency siren system failed to meet a second test deadline. The emergency notification system for the area within 10 miles of Indian Point is being updated by order of the NRC, after a previous incident when the system became unavailable for six hours during a power outage. Under the Energy Policy Act of 2005, Congress requires nuclear power plants located within certain population densities to have back-up power for their emergency notification systems, including sirens. The only site in

the country affected by the population density requirement is — Indian Point.

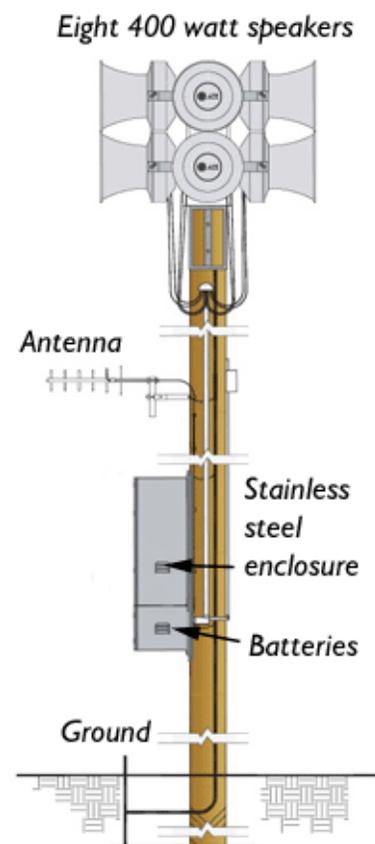
Entergy decided it was not feasible to provide backup power for the 26 year-old electro-mechanical siren system – those rotating sirens require too much energy to be powered by batteries and installation of generators at each of the 156 sites was impractical. The company started a \$10 million project to replace the existing system with stationary four-way electronic sirens, compatible with battery-powered backup. NRC requires the backup batteries to keep the sirens available for 24 hours after a power loss and to sound for 15 minutes if required during a power outage.

The replacement contract was awarded to Acoustic Technology Inc. of Boston in February 2006. The design consists of 150 new sirens mounted on metal poles, twelve computer-based control stations, and new communication links using two separate technologies. Some of the new sirens will be powered by solar panels, and all include batteries for back-up power.



Acoustic Technology's specification for their HPSS32 siren shows *eight* 400 watt speaker assemblies at the top of the pole, fed by a pair of 1600 watt output class D audio amplifiers. A conventional VHF or UHF radio is used to receive and transmit FSK data signals. Audio amplifiers, radio and four deep-cycle batteries are all housed in a stainless steel enclosure mounted lower down the pole. The system can produce eight standard alarm tones as well as live voice announcements and a special tone inaudible to the human ear for silent testing.

Two separate communication systems are used by Entergy and the county emergency centers to activate these new sirens. The first is a **radio network** operating from four radio towers located at the Indian Point



*Acoustic Technology Inc.  
HPSS32 High Powered Speaker Station.*

Energy Center in Buchanan, plus three other locations in Westchester County, Putnam County and Orange County. The towers are linked by microwave.

The second communication system uses commercial **cell phone networks** to carry TCP/IP signals from the Internet. Entergy said that when using the cell system via wireless internet modems, each siren will report preliminary verification at the start of activation and final verification after all sirens have completed actuation and verification.



Westchester's Grasslands tower supports many antennas, including WXPB, 107.1 MHz and the emergency notification system.

The radio site in Westchester is the 470-foot Grasslands Reservation tower at Valhalla, owned by Westchester County, and home to some well known repeaters. An initial analysis for the load of new antennas on the Grasslands tower revealed structural deficiencies. Entergy agreed to coordinate repairs in order to expedite completion of their project, and installation of the antennas and microwave dishes had to wait until repairs were completed. Because of permitting delays and unforeseen work at Valhalla, the NRC granted Entergy an extension to April 15, 2007 to make the notification system operable.

Tests on April 2 found a total of twelve of the 150 new sirens did not work properly. There were problems with "polling" of the sirens from the emergency control centers to let county officials know whether or not the alarms had sounded. Further testing on April 11 showed 13 sirens failed a radio-only activation test.

On April 12, Entergy conducted more tests of the new notification system, with good results from two tests, but poor results from a third test. The first test used a combination of the radio activation system plus the Internet/cell phone activation system, resulting in all 150 sirens sounding, with a single failure in a mechanism at Haverstraw. However, when the Internet/cell phone activation method was tried on its own,



Sirens at Toddville School. New stationary siren is on metal pole at left, old rotating siren is on wooden pole at right.

two sirens failed. And when the radio activation system was tested alone, Entergy reports that **31** sirens failed, including all 14 sirens in Putnam County plus 11 in Westchester County. Mike, W2AG, who was monitoring the sirens for Putnam County told your editor that Putnam's sirens *did* sound — it was the automatic reporting by radio of each siren's successful operation that proved to be unreliable.

Entergy Nuclear Northeast spokesman Jim Steets has said the radio-signal method of activation is challenging because of the topography of the area. He suggested one possible solution was raising the height of an antenna in Putnam Valley to help the signal get over a ridge. Radio activation has worked better in earlier tests, so there is some variability in the system.

PCARA's Bob, N2CBH points out that what looks like a 5/8 wave mobile whip for 220 MHz, side-mounted close to the metal mast, is not the optimum arrangement. With a 60 foot pole available, the best place to mount the antenna would be *at the top*. The only problem is that the antenna would be more likely to suffer lightning damage. Your editor suggests that those thin, flexible whips will not provide anywhere near the consistent gain of the 6 element Yagi antennas, which are mounted at the top of the old wooden poles, especially when the wind is blowing.



*Ground plane antenna mounted close to metal pole that supports the new stationary sirens.*

Entergy realized their new emergency notification system would not be ready by April 15 and requested a further extension from the NRC to August 31, 2007. Entergy noted that volume levels from the new sirens might not be adequate in some areas and acknowledged difficulties in achieving reliable operation in the radio-only activation mode. The NRC concluded that Entergy's difficulties were known at the time of the first extension and denied a request for further relaxation of the Order. On April 23, the NRC proposed a \$130,000 fine of Entergy for failing to meet the April 15 deadline and gave the company 30 days to deliver a plan to get the new system online.

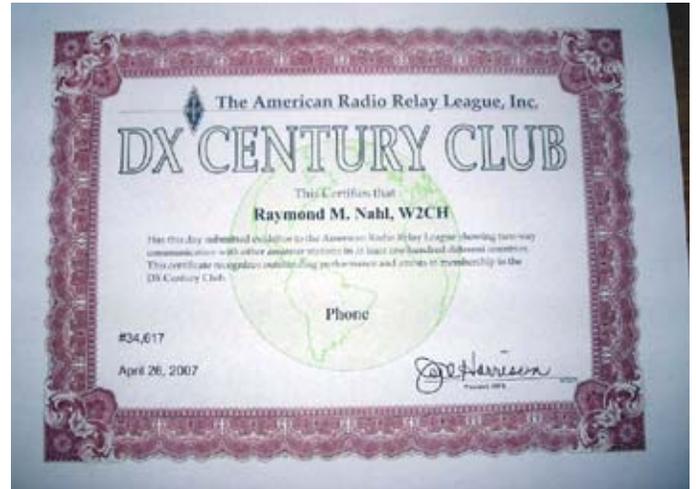
Meanwhile, the original warning system of rotating sirens atop wooden-poles is still fully functional and ready to warn us if anything untoward should happen at Indian Point. If the sirens do sound, and it isn't a scheduled test, tune your radio or TV to one of the Emergency Alert System (EAS) stations, including WCBS-AM 880 kHz, WLNA-AM 1420 kHz, WHUD-FM 100.7 MHz, WCBS-TV Ch 2, and WNBC-TV Ch 4.

**Footnote:** On Friday April 27, the new sirens in Westchester were sounded accidentally while technicians were performing what should have been a silent test.

- NM9J

## Congratulations

It was a last minute decision for Ray W2CH and Marylyn KC2NKU to make the trip to Newington, but Ray went into ARRL headquarters and submitted his applications for DXCC, WAS and WAC, all on the same day. Below is a picture of Ray's DXCC award. Congratulations!



*Can you match Ray, W2CH's achievement of DXCC? (photo by W2CH)*

## Hamfest report

Several members of PCARA made the trip north to Tymor Park on Sunday April 22 for Mount Beacon Amateur Radio Club's Hamfest, which took place in near-perfect weather. Malcolm, Joe WA2MCR, Bob N2CBH and Kevin N2KZE were some of the first through the door to set up PCARA's club table. Kevin had brought quite a lot of equipment, so our table near the entrance was soon full. Ray W2CH and Marylyn



*Ray W2CH and Marylyn KC2NKU alongside the PCARA table at Mt Beacon Hamfest.*

KC2NKU arrived a little later with another box full of equipment... what to do? They decided to rent a second table from MBARC at a bargain rate and soon had it set up alongside.



*Hallicrafters' last HF transceiver, the FPM-300 MkII on sale at Mt Beacon.*

Business was brisk and several items were recycled from the club table(s) to happy buyers, including Bob's MFJ-1278 multimode TNC, Kevin's Icom 3230A dual band mobile and Ray's Hallicrafters FPM-300 MkII HF transceiver. Your editor was lucky enough to have his ticket drawn for a door prize — a colorful backpack.

One week later, on April 28, several members headed over to Orange County Amateur Radio Club's new venue at Wallkill Community Center near Middletown. Ray, W2CH reports that while there was some fog at Annsville Circle, weather at the hamfest was pretty good. The hamfest was fairly well attended, with most sellers outside. Vendors included KJI, Quick-silver and Oasis Radio from North Salem. Mike, N2EAB, had arrived before Ray and Marylyn and just after he left, Ray found that he had also won a door prize — a test-lead set in a case.



*Outside vendors at Orange County ARC Hamfest. Photo by W2CH*

## PCARA Foxhunt Rules

**Sunday May 20, 2007**

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 com-

mences at 3:10 p.m. 3 minutes on, 7 minutes off. The fox will not move during this time. This cycle repeats at 10 minute intervals until the last transmission ends at 4:30 p.m. when the fox will announce its location.

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

4. All contestants who wish to be eligible for a prize must book in at the **Beach Shopping Center 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.



# 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

**Sat May 5:** Town of Cortlandt exercise.

**Sun May 6:** Monthly meeting, 3:00 p.m. Hudson Valley Hospital Center.

**Sun May 20:** PCARA Foxhunt.

## Hamfests

**Sun Apr 29:** Southington ARA Fleamarket, Southington HS, 720 Pleasant Street, Southington CT. 8:00 a.m.

**Sat May 12:** East Greenbush ARA Hamfest, Phillips Road Firehouse, East Greenbush NY. 8:00 A.M.

**Sat May 26:** Bergen ARA Spring Hamfest, Westwood Regional HS, Ridgewood Rd, Washington Township NJ. 8:00 a.m.

**Sun Jun 3:** LIMARC Outdoor Hamfest, Briarcliffe College 1055 Stewart Ave, Bethpage, NY. 9:00 a.m.

## VE Test Sessions (*No more code tests!*)

**May 6:** Yonkers ARC, Yonkers PD, 1st Precinct, E Grassy Sprain Rd, 8:30 a.m. Contact D. Calabrese, (914) 667-0587.

**May 14:** Split Rock ARA, Hopatcong HS, Hopatcong, NJ. 7:00 p.m. Contact Sid Markowitz, (973) 663-0518.

**May 21:** Columbia Univ ARC, 612 W 115th St, Columbia Univ-Morningside Hgts, Watson Labs, 6th floor, New York, NY. 6:30 PM. Contact: Alan Crosswell, (212) 854-3754.

**May 26:** Bergen ARA, Westwood Regional HS, 701 Ridgewood Rd, Washington Township, NJ. 8:00 a.m. Contact Donald C Younger (201) 265-6583.



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