



PCARA Update



Volume 9, Issue 10

Peekskill / Cortlandt Amateur Radio Association Inc.

October 2008

Super station



Super Station-master 220-2N antenna.

The 2 meter machine has a brand-new RFS Super Stationmaster antenna thanks to our **very** generous members who responded so quickly to my call for financial assistance. I wish to thank everyone for their unselfish donations, which made the purchase of this antenna a reality. I would also like to thank Bob, N2CBH who ordered the antenna and had just finished installing it* as this article was being written on Saturday September 28. Talk about a short turn-around time! So give the 146.670 MHz machine a try and see how the new antenna works. **Thanks Bob!**

At the October meeting we will be discussing the Annual PCARA Holiday Dinner arrangements. As in past years, we are planning to hold the dinner at *At The Reef* in Annsville. This year however, there is a new wrinkle in the pricing due to the current volatile economic environment. If you want unlimited non-alcoholic beverages and/or Prime Rib, there are additional charges. Come to the meeting and share your thoughts and ideas on the pricing.

We will also be discussing PCARA's participation in the September ARRL VHF QSO Party, which was graciously hosted by Marylyn, KC2NKKU and Ray, W2CH at their home station. Come and see how we did! A big Thank You to Marylyn and Ray for their hospitality.

Our next meeting is scheduled for October 5, 2008 at 3:00 PM at Hudson Valley Hospital Center. I look forward to seeing each of you there.

- 73 de Greg, KB2CQE

* The new Super StationMaster antenna replaces a Diamond 2 meter collinear antenna that was erected by N2CBH in October 2007 at the PV repeater site. - Ed.



These are the antennas used on 6 meters, 2 meters, 220 MHz and 430 MHz by Ray W2CH and Marylyn KC2NKKU in the September VHF QSO Party. More details on page 7.

PCARA Officers

President:

Greg Appleyard, KB2CQE, kb2cq at arrl.net

Vice President:

Joe Calabrese, WA2MCR; wa2mcr at arrl.net

Contents

Super station - KB2CQE	1
Adventures in DXing - N2KZ	2
From the broadcast corner - N2CBH	5
Throw the switch - NM9J	6
QSO Party - W2CH	7
New DRM service	8
Holiday meal	8
BARA Hamfest	9
NVIS for your club	9

Adventures in DXing

- N2KZ

My Friend Bill

William "Bill" Stocker, N8LFR, passed away Sunday evening, September 14 at about 8 pm at St. Mary's Medical Center in Saginaw, Michigan. Bill was three days short of his 84th birthday. I knew Bill through my participation in the original Old Goat's Net on the Lake Huron Amateur Radio Club repeater located in Bad Axe, Michigan. Bill was the cornerstone of amateur

radio in those parts and quite a remarkable man.

Bill was a true radioman known throughout the county as a fine professional. A World War II veteran, Bill sometimes worked for the local two-way radio firm, Thumb Radio, was the caretaker of the local TV station, WDCP Channel 35 in Uby, and also served as the custodian of the LHARC repeaters in Bad Axe. Bill was the seasoned authority on all things electronic. He was an avid ham and was always willing to take questions and always offered thoughtful answers.

Bill loved his community serving as mayor and councilman in his hometown of Bad Axe. He was a member of the VFW and Masons and also volunteered as a firefighter. His goal in life was to make the world a better place. He succeeded time and time again.

Nearly every Fourth of July, Bill rode the Masons' float in the Port Austin parade. I remember Bill, one summer, donning a 'McDuff, the Crime Dog' suit for the parade. It was a big oversized costume, inflated with a running fan, and it was really hot to wear in the summer's sun. Bill didn't mind because he knew how much the kids liked it and had worn it all over the county at charity events. When the LHARC annual picnic came along at the end of July, Bill once again got into the suit just for the fun of it. What a guy he was!

Bill's demeanor was always low-key and thoughtful. He was a good listener and would make everyone feel like they were important to him. I was often astounded when Bill shared a point of radio history or a nugget from his vast experience. There wasn't anyone who doubted Bill was 'Mr. Radio' in Huron County and beyond. His voice was quite familiar as the identifier on



Bill Stocker, N8LFR

the two meter repeater we all still use on a daily basis.

I only get to spend a handful of days every summer in Huron County so I never got to know Bill as well as I had liked. For nine summers I have checked into the LHARC Old Goats' Net every morning like clockwork. You'd better believe that the very first check-in most mornings was Bill's familiar voice chiming in with 'N8LFR' (his amateur radio call sign.) Now, there will always be a void because Bill is missing. Bill always encouraged younger hams to chair the daily net and learn about the repeaters. Now, their time has most definitely come. Things will never be the same. We will really miss you, Bill.

I Have Seen The Future

When was the last time you heard of someone buying a *radio*? How do your kids watch "TV?" And what on earth is *'cable'*? The age of separate appliances for entertainment is nearly at an end. Radio and TV now arrives via fiber over the Internet. The term 'broadcaster' is being replaced with 'program producer.' It's a new world coming, you no longer have to wait to see!

You can fast-forward to the future today: Simply log on to your favorite streaming video or Internet audio site. My current favorites are abc.go.com and hulu.com. Abc.go.com features shorts and full length versions of ABC's prime time shows and more in full HD quality. Get a good connection and you'll see the sharpest 16 x 9 picture you may ever hope to see. Port the VGA or S-Video output of your PC to your large flat screen display and you *have* seen the future! Commercials are easy to endure at less than 30 seconds each. ABC's advanced presentation even brands your playback to your area by showing you the logo of your local old-fashioned TV station.

A similar site is the Fox and NBC consortium called Hulu.com. Hulu offers more shorter length clips than ABC but also presents full-length movies with 'limited interruptions.' I watched the old classic 'Close Encounters of the Third Kind' and saw a single commercial inserted every 20 minutes or so. Not bad for free! This could be what 'television' evolves into.

You can easily build a new-wave media center for yourself. All you need is more and more laptops! I tried



Karl views video from multiple Internet streams.

seeing how many baseball games I could watch all at once using Major League Baseball's mlb.com. I watched four 1.2 Mbps streams without losing definition and continuity. It was pretty amazing! MLB does not air most of the commercials seen on networks like the Yankees' YES or the Red Sox's NESN. You'll see an animated standby slide instead which takes a bit of getting used to. Baseball games local to your area may be blacked out, as well.

If you don't have a method to portal your PC to external screens directly, you can also sneak the video onto the big screen using your kid's video game console. I use a Nintendo Wii to watch You Tube videos or whatever else suits my fancy. Game consoles are limited in resolution and playback abilities. For instance, a Wii can only play back You Tube videos in regular size. It does not have enough horsepower to produce a 'full-



'You Tube' video viewed through a Wii game console.

screen' rendition, but you can zoom the images as big or small as you like. It's not a bad compromise and the Wii interface is very easy to use.

Internet radio can be a lot of fun, too. Better than any shortwave set, I tune into Ireland, Scotland, Australia, Canada and a host of others in perfect quality and often in very nice stereo. I can tune into BBC Radio Scotland, RTE One from Ireland, OZ FM's rock 'n' roll from Newfoundland or WCBS Newsradio in New York City. It's all there and it's by demand.

So, let's see...tonight I'll watch the CTV news from Canada, take in The Late, Late Show from RTE Ireland, watch a few music videos on You Tube and listen to Michigan Public Radio before bed. Who needs a radio and TV? It's all on my computer and it's all free!

Ready? Repair Remote!

Remote controls are nearly disposable. If it breaks, just buy a new one. But what do you do when the original one that came with the unit has a unique feature that you really like and can not be replaced? Can you actually fix these things? The answer is 'yes!' If you own a soldering iron, or know someone who does, it becomes a lot easier.

Here's how: Most remotes fail due to excessive dropping or dirt. There are very few parts in a remote control, so troubleshooting is not hard.

Your most useful tool is unlikely. Digital cameras

perceive a much broader spectrum of light than the human eye. Aim a digital camera at the LED at the front of the remote. Press any button. The camera will interpret the infrared radiation of the remote as a visible light you can see through the camera's screen. (See picture right.) If you see the light, you know the remote works. If you don't see the light, the camera will guide you to success.



Remote control in operation while being viewed on a digital camera.

Proceed like this: Use a long blunt object, like the back of a butter knife, to carefully pry open the remote. Be gentle and go slowly. When you open it up you will have two halves of the remote's case, a rubber keyboard



Inside a Sony remote control. Left to right, plastic case, rubber keyboard and printed circuit board.

and a printed circuit board.

Take a look at the printed circuit board first. Are the metal springs or tabs that hold the batteries in place clean? If not, clean them with a pencil fitted with a white (coarser) pen eraser.

A regular eraser may suffice. Clean away any leaky battery goo while you are at it. Alcohol on a Q-tip works as a good solvent for these messes.

Look and see if the spring or tab for the batteries still connects to the circuit board well. If it has cracked loose you can often repair it with a delicate touch of solder. Similarly, look at the LED at the front of the unit and the little crystal (silver chicklet or cylinder) that acts as the frequency standard for the pulses the remote creates. All should be well attached to their connections on the circuit board. Re-solder them if they are not.

The rubber button pad is actually a piece of nifty technology. Each button has a conductive black dot on the underside that almost touches the circuit board. When you press the button, and the little black dot touches the circuit board, you change conductivity between adjacent circuit tracks, which in turn changes how many electrons hop through the switch to pins on the controller chip. Wow. And it works very well!



Underside of the rubber pad from the Sony remote control on p 3. Black circles are conducting rubber.

The rubber pad and all its little pieces need to be clean to work well. Pepsi syndrome and crumbs can really ruin what the buttons are trying to do. The circuit board needs to be clean, too. Gently wash the rubber pad with soap and water and air dry it (no heat!) Remember to stop the sink before washing. You don't want to see an essential tiny part go down the drain! Gently clean the circuit board with a touch of alcohol on a Kleenex. Never scrub!

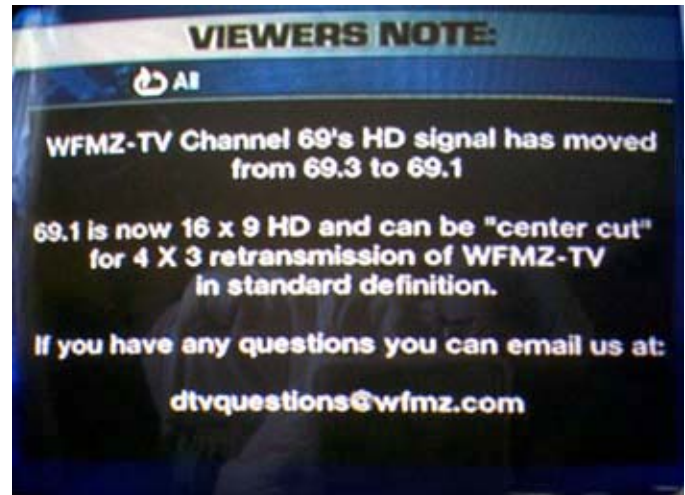
Now it's time for the big test. If you can, try to operate the control without completely assembling it. Opening and closing the remote's plastic enclosure can be a bear. Look through the live view feature of your digital camera and see if the LED is now emitting light when you press a button. If it isn't, look further at all the parts to try to discover what is wrong.

Finally, if a remote is emitting light but still doesn't work it may be programmed wrongly. I saw this problem recently with a universal remote. The batteries had been out of this remote for a long time and all its settings went back to factory defaults. It no longer operated the TV it was once programmed for. Look online for the guide book and code list for your universal remote and try to reprogram it. To efficiently search on-line, you'll need the remote's make and model number for an accurate match. Look for numbers engraved in the plastic or written on the inside of the battery compartment or on the battery cover. If you can't find a guide for the exact remote, look for similar models. You may 'luck out.' I did! Take my hints and give it a try! Fixing them might be a lot less remote than you think!

Fine VHF DX

With only four and a half months left in the analog TV era, TV DXing has been particularly good.

I've managed loggings as far south as Virginia and North Carolina using just my little analog mini-TV. Steamy moisture delivered by tropical storms can present some wonderful catches. DX isn't limited to just analog stations. I logged quite a few DTVs, including a wild opening into Pennsylvania, with huge signal strengths. Take a look at the frame WFMZ Allentown was broadcasting – a true sign of the times!



Announcement from WFMZ-DT in Allentown, PA.

On the amateur radio side, we have enjoyed several openings recently bringing in signals from all over the Atlantic Seaboard to our receivers. I was in the middle of a QSO, via the nearby PEARL repeater in Carmel, New York, when another station came in asking what repeater we were using. He was operating with five watts and a modest antenna from Delaware! A few minutes later, another ham joined in using similar QRP equipment from Springfield, Massachusetts. These two hams chatted with hundreds of miles between them. What a wonderful use of a two-meter repeater!

Another place to find high VHF adventure is the nationwide two-meter simplex frequency 146.52 MHz. I have heard several stations on this frequency holding high-power court and taking in loggings left and right from hundreds of miles away. Their ears can be incredible, too. I threw out a chance call from my home QTH one afternoon and received a powerful reply from a station in Pound Ridge, New York quite a distance away (especially for the limited range of my HT and rubber duck.) Great fun!

I also chanced upon the Fairfield County equivalent of the powerful WECA repeater located in Valhalla, Westchester County. It's operated by The Greater Norwalk Amateur Radio Club (GNARC) on 146.775 MHz with a negative 600 kilohertz offset and a 100 Hz PL. Located high atop a cellular phone tower, it covers a huge area, including my home QTH, and has quite an active membership. It's a good place to find a chat

should you venture into The Nutmeg State.

Finally, if you were a shortwave listener in your youth, you may enjoy www.intervalsignals.net. It is the largest collection I have found to date of the little ID jingles used to attract listeners to a station in the days of analog tuning. There are many, many station IDs to be found here, as well. You can spend a lot of time at this site!

Until next month, get on the air and have fun!

73 de N2KZ "The Old Goat."



From the broadcast corner – N2CBH

Another round of work begins tonight (Sept 29) at the Empire State Building. There are four projects which are commencing. First, removal of the channel 68 antenna, which is side mounted to the tower; second is replacement of the existing channel 53 digital antenna used by Univision. Next comes maintenance on the master FM antenna and finally replacement of the side-light fixtures, so that the tower will be in complete FAA compliance. The work is expected to take about ten nights and will be performed on consecutive nights, ending sometime in the middle of the first full week of October.

Each night the entire broadcast community that uses the tower will be asked to either sign off or use auxiliary facilities that are located off the tower. The stations affected are:

WNBC TV CH 4,
WNYW TV CH 5,
WXTV TV CH 41,
WFUT DT CH 53,
all FM stations,
WCBSTV CH 2,
WNYE TV CH 25,
WABC TV and DT,
WWOR DT,
WPIX TV and DT,
WNET TV and DT.

Other stations are not impacted as they use antennas that are either not on the tower proper or are located at another site.

The channel 68 antenna will not be replaced as WFUT CH 68 will sign off in February at the sundown date. Channel 53's antenna is being replaced with a new model. The master FM work will consist of replacing the aging insulators in the dipoles and fixing an air

leak that has developed over time. The side-light replacement is another general maintenance operation. Weather takes its toll on all the electronics and hardware and it is not unusual to be carrying out these types of jobs.

The work being performed will involve at least four firms: Superior Tower Service; Electronics Research, Inc.; Hatzell and Bueller Electric; and Broadcast Devices, Inc. Electronics Research, Inc. is the general contractor and supplier of the antenna and other RF components; Superior Tower Service will be performing the rigging operations, while Hatzell and Bueller Electric will be performing the relamping. Broadcast Devices, Inc. provides RF Safety supervision and general project logistical support.

You might ask, what's it like to work in the middle of the night at "Empire"? Well, most of the time it is pretty boring, but once in a while things get busy too. My role as RF coordinator is to inspect each facility to insure that transmitters are off or switched to auxiliary facilities and the systems locked out. Once this is complete I then notify the tower crew foreman that it is safe to climb and what the conditions for climbing are. Sometimes, not all stations are asked to go off-air depending on the nature of the work. During those times I instruct the crew as to where they can climb and where they cannot.

At the end of work each night all stations await my all-clear, once I have received it from the tower crew. The all-clear consists of the foreman notifying me that all personnel are off the tower and that the hatch is sealed. Only then can stations resume operations from the tower.

BDI is involved with other activities — we also



The 1,504 foot high Empire State Building is home to 44 radio and television stations, radiating both analog and digital signals.

supply technical and logistical support. We receive and transport materials for the crews via ERI. We have been involved with making impedance measurements, TDR measurements, electrical repair, etc. In fact ERI and BDI were able to troubleshoot the problem with the beacon during the last round of work. We act as “jack of all trades” to support the other contractors, which ends up being the most interesting part of the work.



Aircraft warning beacon for the Empire State Building as replaced last summer.

Stay tuned because work on the tower at Empire will likely continue after the February 17th 2009 analog television sundown date. Removal of the analog antennas will likely take place next year and there is talk of replacing the DTV antenna yet again with a new antenna at the top of the tower. This may finally give the DTV stations uniform coverage, much like they had in the old days (1970s) at Empire.

- Bob, N2CBH

Throw the switch

Following a recent acquisition of a new tuner, I carried out a reorganization of my HD Radio equipment. As a result, the Accurian HD Radio receiver, originally purchased from Radio Shack in November 2006, ended up in the bedroom.



Accurian HD Radio receiver.

Two problems soon became evident. The first was the bright blue display, which stays illuminated whether the radio is powered on or powered off. If there's a blue glow suffusing the room in the middle of the night,

then it's most likely to be the Accurian rather than any arriving aliens.

The second problem took me a few days to notice. First of all there was bad case of interference to certain AM stations, especially on my GE Superadio – which is optimized for reception of faraway stations on medium frequencies.

A little while later, I noticed that my RS alarm clock – which has a built in “atomic” clock, synchronized to WWVB in Fort Collins, Colorado – was no longer synchronizing. Hmmm – could there be a connection? There certainly was! It was the power supply for the Accurian HD Radio receiver.

For some reason known only to Radio Shack, the Accurian radio — designed for reception of fragile digital broadcasts in the MF-AM and VHF-FM bands — had been supplied with an external 12 volt 5.0 amp switch mode power supply, similar to the units provided with notebook computers. This particular unit was spewing out interference all over the MF band. By keeping the power supply as far as possible from the external antenna of the Accurian, I had reduced the interference to a reasonable level — but the other equipment nearer to the power supply was being badly affected.

The solution was to replace the switch mode power supply with a traditional analog regulated supply. I had an old Radio Shack 12 volt 3 amp regulated power supply with an on-off switch on the front panel. Not only did this cure the interference problem, but I could turn off all power to the radio overnight and say goodbye to the bright blue glow.

Just a day later, I was reading the October issue of UK magazine *Practical Wireless*. In a letter entitled “Cornwall & Clocks”, Brian Tresize described problems he experienced following the move of the UK's MSF 60kHz time transmitter from Rugby to Anthorn, Cumbria in April 2007. The distance between the MSF transmitter and Brian's home in Penzance increased from 240 miles to 350 miles. As a result, the signal strength dropped and the radio-controlled clocks in Brian's house stopped synchronizing. There were similar experiences throughout southern England.

Tuning around with a long-wave broadcast receiver, Brian noticed that low frequency signals previously audible in his home had disappeared under a blanket of electrical noise. The cause was switch-mode power supplies that had been left plugged in, even



Switch mode power supply for Accurian HD Radio receiver.

though the equipment they supplied was turned off. Replacing the switch mode units with older transformer-style DC power supplies subdued the electrical noise and restored satisfactory reception of MSF to the radio controlled clocks.

So — if you are experiencing interference on low frequencies or medium frequencies, take a look around your home for switch-mode power supplies — especially units that are left plugged in continuously for charging cell phones, iPods and computers. Unplug the units that are not in actual use, or replace them with conventional 60Hz transformer-style DC power supplies.

But this is where you may run into a problem. A quick check in our local Radio Shack store and in the online catalog reveals that Radio Shack has stopped selling old-style AC adapters and is only supplying lightweight switch mode units nowadays. The old-style DC power supplies with a heavy transformer are history! User Manuals for the new units claim they “comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules” but you and I know that this is not enough to guarantee freedom from interference to weak signals.

My advice is — if you see a conventional DC power supply at a hamfest or garage sale, grab it while you can! They are becoming an endangered species.



Radio Shack 9 volt and 12 volt DC power supplies now use a lightweight switch-mode design, instead of a heavier iron-cored 60 Hz transformer.

- NM9J

QSO Party - W2CH

Here is what happened during the weekend of September 13-14 when Marylyn and I hosted the W2NYW entry in the September 2008 ARRL VHF QSO Party.

Marylyn did most of the logging with the N3FJP “VHF Contest Log 2.8” program. I handled most of the QSO’s during the contest.

We operated from the beginning at 2:00 p.m. on Saturday afternoon, to the end at 11:00 p.m., on Sunday night, with time off during lower periods of activity. It was not that easy building up our score due to a lack of “band opening” conditions such as E-skip or



Ray W2CH and Marylyn KB2NKU operating in the ARRL VHF QSO Party.

tropo of any sort. It might have been the very warm weather, near 90 deg F on Sunday, that prevented tropo conditions, which one often finds in September/October. Of course 6 meters had no E-skip as the peak season was over for that, and with the lack of sunspots, so far, at that time, for Cycle 24.

Additionally, some of the regular contest stations, such as N2SE, W3CCX, etc, were not there. There wasn’t much local activity, except for Joe, N2GCZ, with Norm, N2GKM, operating with N2GCZ. Norm said that they had to work pretty hard to drum up QSOs. I did briefly work Bob, N2DVQ, nearby in Yorktown, who is very active with WECA. His Elecraft K3 sounded very nice. There were a few stations on from Rockland County.

However we did enjoy the contest and our new station set-up certainly improved our score, over what we had achieved in previous ARRL VHF Contests. The hardest band to make local QSOs was 432 MHz, understandably due to the higher frequency. However, some distant QSOs on 432 MHz had good signals, due to their height and antennas. We managed to work most of the Northeastern states, from Maine to Virginia, except for Rhode Island.

Our scoring was as follows; the entry has now been sent into ARRL:

BAND	QSOs	GRIDS
50	38	15
144	47	16
222	15	8
432	9	5
TOTALS	109	44
SCORE:	5852 Points	

— Ray, W2CH

New DRM service

BBC World Service and Germany's Deutsche Welle have announced plans to launch a joint service to Europe using the new digital mode DRM (*Digital Radio Mondiale*), broadcasting on short wave.

The new stream will be in English, from early morning until late at night, targeting Western and Central

Europe, an area with a potential audience of 170 million listeners. The service will include global news and current affairs plus analysis, documentary and cultural programs. In addition to audio, text will also be available with material from the BBC News website.

BBC World Service Controller of Business Development Ruxandra Obreja said: "Deutsche Welle and the BBC see DRM as the winning solution for the digitization of the AM bands on a global scale and they believe that this new stream for Europe will give a welcome boost to international digital radio. Listeners in Western and Central Europe can now buy one of the growing selection of DRM-capable receivers and hear in excellent quality top class programs that in recent years they could only access online."

In a World Service interview, the BBC suggested that the service could be launched by the end of 2008 and could make use of World Service material originally intended for other areas such as the USA or Africa.

Short wave frequencies and transmitter locations for the new service have not been announced yet. The BBC has previously been transmitting World Service by DRM as follows:

- on MF from Orfordness, UK (1296 kHz),
- on SW from Rampisham, UK (5875 and 7320 kHz)
- on SW from Kvitsoy, Norway (5875, 7465, 9470 kHz)



All transmissions feature the same content:

- English for Europe, using AAC (MPEG Advanced Audio Coding + SBR (Spectral Band Replication) in mono at approximately 20 kbit/s;
- Dynamic Text Messages;
- 7-day Electronic Program Guide.



Morphy Richards DRM Radio

Stand-alone receivers for DRM are just becoming available in Europe. For example, the Morphy Richards "DRM Radio" includes DRM reception for long wave, medium wave and short wave, plus DAB reception in Band III (174-220 MHz) and L-Band. DAB is the form of VHF digital broadcasting employed in Europe. (And just for old-time's sake, this radio also receives AM and FM.)

Holiday Meal

Ray and Marylyn have been collecting details of the upcoming Holiday Meal, planned to coincide with the December meeting on Sunday December 7. Location will be as before, "At the Reef", located at Annsville Circle. The menu will be as follows:

DINNER MENU

Tossed green salad

Choice of entrées with Baked Potato and Vegetable:

Chicken Cordon Bleu

Boneless Breast of Chicken Marsala

Penne à la Vodka with grilled breast of Chicken (no potato or vegetable)

Broiled Stuffed Filet of Sole

Broiled Filet of Salmon

Prime Ribs of Beef (add \$2.95)

Cake of the Day, Coffee or Tea

Unlimited soda (\$2.95)

Final details of the pricing have not been worked out yet. Join us at the next PCARA meeting to join the discussion!

BARA Hamfest

Here is information on the next BARA Hamfest as received from Bergen ARA.

“The Bergen Amateur Radio Association (BARA) is holding its Fall hamfest Saturday, October 4, 2008. Sellers setup starts at 6:00 a.m. and doors open to buyers at 8:00 a.m.

Location is the Westwood Regional JR/SR High School, 701 Ridgewood Road, Township Of Washington, NJ 07676; GPS coordinates: N40.58.823 W74.03.647. Talk in: 146.19/79 PL 141.3

Free Parking, ARRL info, door prizes, food, refreshments and DXCC Card Checking will be available.

Door prizes and handouts -- courtesy of the ARRL, Radio Amateur Callbook, Icom, CQ Magazine, World Radio Magazine and others.

KJI Electronics and Radio Oasis will be there along with many vendors.

VE Session administered from 8:00 a.m. through 10:00 a.m. Bring Original FCC License & copy, CSCE & copy and 2 forms of ID. There is a \$14 FCC imposed fee.

Buyers: \$5.00 per person (non-ham family members are free!) Sellers: \$15.00 per space. Bring your own tables. No reservation required. Includes 1 admission.

For additional info contact Jim Joyce K2ZO, email: k2zo 'at' arrl.net, phone: 201-664-6725

Directions and flyer at the BARA website at <http://www.bara.org>”

NVIS for your club

Near Vertical Incidence Skywave (NVIS) is a propagation mode which uses high angle radiation to send signals almost straight up, to be reflected back to Earth for very effective short to medium haul communications. NVIS uses a no-skip zone, making reliable communications effective for a range out to 500 miles.

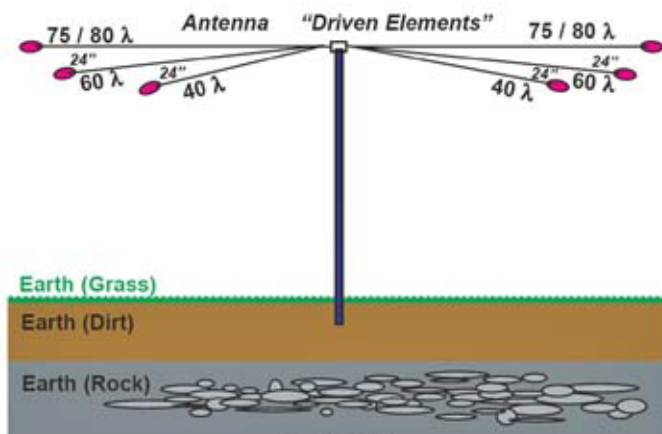
No special equipment is required to create high angle radiation. The NVIS propagation mode works on frequencies below 10 MHz because these high angle radio waves are reflected back to Earth rather than absorbed by the atmosphere as with higher frequencies. Often a low dipole is all that is needed to accomplish reliable communications within the no-skip zone.

Because of the reliability of communicating within this range and no need for infrastructure or third party support such as repeaters or satellites, NVIS is an excellent choice for emergency communications and for staying in contact with friends in nearby locations.

NVIS is an excellent topic for a club meeting and clubs can get extra mileage from the NVIS topic by incorporating an antenna project and on-air activities among the members. The ARRL Multimedia Library has several PowerPoint programs that can be used by your club for meeting programs. These programs are free to download and use at www.arrl.org/multimedia.

One of the programs in the library presents NVIS fundamentals, its advantages and techniques on how to deploy NVIS in the field. Use this program at your club meeting as a presentation and discussion of the high angle propagation technique.

After members are knowledgeable about NVIS, future meetings can incorporate a hands-on project where club members build antennas to use for NVIS operation. The multimedia library has a marvelous PowerPoint presentation with a project for building an NVIS antenna for the 40, 60 and 80 meter amateur bands. This program is well illustrated, easy to follow and uses readily available materials. Because the NVIS technique is effective for short to medium distances, club members can gather on the air and compare signals and other aspects of NVIS.



One of the slides from the ARRL PowerPoint presentation “NVIS tri-band antenna project”.

With all of the recent tropical storms and hurricanes in the Southeastern United States, radio amateurs employed NVIS techniques to get messages out of affected areas. The propagation mode works well with SSB and with digital modes including Winlink 2000. Because antennas for NVIS do not have to be mounted high, a complete antenna package including coax and support poles and antenna can be packed into a duffel bag, ready to be deployed whenever and wherever needed.

If your club is looking for an informative and entertaining meeting program that can be expanded to other activities, then try Near Vertical Incidence Skywave.

Source: ARRL Club News, September 2008.

Peekskill / Cortlandt Amateur Radio Association

Mail: PCARA, PO Box 146, Crompond, NY 10517

E-Mail: w2nyw@arrl.net

Web site: <http://www.pcara.org>

(Alternate address: <http://www.geocities.com/pcara2000>)

PCARA Update Editor: Malcolm Pritchard, NM9J

E-mail: NM9J @ arrl.net

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 Oct 5: PCARA meeting, Hudson Valley Hospital Center, 3:00 p.m.

Hamfests

Sat Oct 4: Bergen ARA Fall Hamfest, Westwood Regional HS, 701 Ridgewood Rd, Washington Twnshp, NJ. 8:00 a.m.

Sun Oct 5: Hall of Science ARC Hamfest, New York Hall of Science 47-01 111th St., Flushing Meadows, Queens, NY. 9:00 a.m.

Sun Oct 26: LIMARC Hamfair & Electronics Show, Levittown Hall, 201 Levittown Pkwy, Hicksville, NY. 9:00 a.m.

VE Test Sessions

Oct 4: Bergen ARA, Westwood Regional HS, 701 Ridgewood Rd, Washington Twnshp, NJ. 8:00 a.m. Contact Donald Younger, (201) 265-6583.

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

Oct 9: WECA, Westchester Co Fire Trg Center, 4 Dana Rd, Valhalla NY. 7:00 p.m. Contact: Stanley Rothman, (914) 831-3258.

Oct 19: US Military Academy ARC, Thayer Hall, Rm 306, West Point, NY. 2:00 p.m. Contact Joshua Mauldin, (845)515-4547.

Oct 20: Columbia University, 2960 Broadway, 115 Havemeyer Hall, New York. 6:30 p.m. Contact Alan Croswell (212)854-3754.

Oct 24: Orange County ARC, Munger Cottage Riverlight Park, Hudson St., Cornwall, NY. 6:00 p.m. Contact Ronald Torpey, (845) 234-2371.



Peekskill / Cortlandt Amateur Radio Association Inc.
PO Box 146
Crompond, NY 10517