



PCARA Update



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Foxes and Field Day

The winner of the PCARA Foxhunt on Saturday May 12, 2012 was a returning champion of several previous hunts. That afternoon, Joe, WA2MCR and myself had secreted ourselves in the parking lot of Lincoln Titus Elementary School in the Crompond section of Cortlandt Manor. We were discovered by Karl, N2KZ and harmonic Laura shortly after 3:30 pm that afternoon. Just as Karl had jumped out of his vehicle here came Malcolm, NM9J hot on his heels – not even 30 seconds later! It should be noted that Malcolm is



also a winner of previous foxhunting expeditions. Hmmm, I seem to see a pattern developing here. Congratulations to both Karl and Malcolm! After the foxhunt, we all proceeded to the Westchester Diner in Peekskill for a nice meal, and the awarding of certificates to both Karl and Malcolm. An excellent afternoon.

PCARA is planning (pending final approval) on observing Field Day

2012 activities at Walter Panas High School at 300 Croton Avenue in Cortlandt Manor, NY on the week-end of June 23-24, 2012. Final details will be discussed at the June meeting. If you wish to participate in Field Day 2012, **please** let us know. We especially need volunteers for the overnight hours and for wrapping up on Sunday. Join us!



Our next regularly scheduled meeting will be Sunday June 3, 2012 at 3:00 pm at Hudson Valley Hospital Center in Cortlandt Manor, NY. I look forward to seeing each of you there.

- 73 de Greg, KB2CQE

PCARA Officers

President:

Greg Appleyard, KB2CQE, kb2cq at arrl.net

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Joe Calabrese, WA2MCR; wa2mcr at arrl.net

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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 news and neighborly information.



Lovji, N2CKD demonstrates his tape-measure Yagi during the PCARA foxhunt.

Adventures in DXing

– N2KZ

Foxhunt!

After years of waiting, the time had finally come for another PCARA foxhunt. Friday morning, May 11, I assembled my portable five-element 2 meter Yagi, got out my long assembly for attenuating signals and tried out my gear on the back deck at my QTH. Things were looking really good! I used a short length of PVC pipe to insulate my hands from the antenna structure of the Yagi. Using just my trusty Icom IC-T7H HT, I tuned around and caught some hams talking on a repeater in Pennsylvania. I swung the beam around until I had my best signal. The copy was fine business and the distance was pretty amazing. It was a good omen.

I loaded the Yagi into the back of my mini-van. I then quickly tried out my Radio Shack PRO-32 handheld scanner that I monitor the fox frequency as an overall reference. Using this scanner with an omnidirectional mag-mount antenna on my roof, I can always tell when the fox hits the air even when my Yagi is still in the car. If I don't hear it on one antenna,



Karl loads his long Yagi antenna into the back of the mini-van at Peekskill's Beach Shopping Center.

I'll certainly hear it on the other! With everything checked out, I was ready to go the next afternoon to the hunt.

Saturday, May 12th was a remarkable day. It was warm, almost 80 degrees, and barely a cloud in the sky. It couldn't have

been nicer. We hit some traffic on the way to the foxhunt starting point at The Beach Shopping Center off Route 6 in Peekskill. I must admit we listened to 146.565 MHz on the way to the start hoping to hear the fox, but not a peep was received!

The foxes were a noble lot: My favorite seasoned

DXer, Joe WA2MCR, was joined by PCARA club president Greg, KB2CQE. They arrived at their fox den minutes before 3pm. Far away from them, assembled at the starting point was Malcolm, NM9J and Lovji, N2CKD along with myself and my daughter Laura. Malcolm had his nifty and compact two-element handheld array with a most excellent compass attached.



Karl shows his IC-T7H handi-talkie, Radio Shack rotary attenuator, fixed attenuators, all in series with the Yagi antenna stowed in the mini-van.

Lovji brought along his newly-made tape-measure Yagi and an amazing Moxon antenna for 440 use. We were all ready to go when the 3 pm start time came around.

Malcolm policed my daughter and I! At 3 pm, we got a good reading on the fox and jumped in our mini-van ready to leave in a blaze of speed. Malcolm reminded us that we have to stay put until the first fox broadcast ends. OK! OK! We'll wait! The carrier on 146.565 MHz dropped to static and we were off! We flew eastbound down Route 6, took a right on Conklin Avenue and then made a left onto Crompond Road. We watched the clock and jumped into a small shopping center parking lot just before the second transmission began.

The fox transmitter went on and the signal was much stronger now. Good! We are going in the right direction. I got a reading to the northeast, carefully placed the Yagi back into the mini-van and on we went! We again raced up Crompond Road heading eastbound, passed the end of the Bear Mountain Parkway, and made a left onto Maple Row. We were running out of time, so we pulled over onto Baron De Hirsch Road and took another reading. The terrain in this neighborhood is quite varied with lots of little stony and hilly rocks and valleys. As we saw demonstrated in a past foxhunt, when Wires' Mom, Sharon KC2LLC hid as the fox in this neighborhood,

Crompond can be a difficult area to direction find!

I picked up two peaks 180 degrees opposite of each other. I decided to again go northeast and see how the fox sounded on Lexington Avenue. Now we waited for transmission number three. The signal was abysmal at Lexington and Jackson Road. Laura could hear the fox on the scanner, but I could barely pick them up with my Yagi. Again, we jumped back into the car and retreated in the reverse direction from whence we came.

Laura watched the clock and we found ourselves right in front of the Crompond Post Office ready for transmission number four.

Now, finally, the signal was strong to the southwest. We did a quick analysis of the map and agreed: "Let's try the Elementary School." We raced to the school and I whipped around in front of the school

guessing what to do next. We stopped in front of the school and took a quick look at the map. I looked up and quickly scanned my surrounds. AHA! I saw a white Ford sedan sitting on the side of the school with a mag-mount antenna hanging horizontally on its rear bumper!



Karl and Laura (center) find the foxes at Lincoln-Titus Elementary School.

I jumped out of the mini-van and saw Greg sitting in the front seat. "Are we the first one?..." and we were! Laura and I had found the fox! Just seconds after our winning recognition, Malcolm pulled into the school yard only a flash behind us. This might be the most rapid and efficient fox hunt of all time! Like excited tourists, we all took pictures of each other at the fox den and then headed out to the après-hunt meeting spot, the Westchester Diner near Welcher Avenue along Route 9A when the foxhunt was officially over at 4:30 pm.

The foxhunt dinner was wonderful, attended by

Greg and Joe and their families, Malcolm and Lovji and myself and Laura. Malcolm and Greg presented the award plaques to the winners and a grand time was had by all! What a fun way to spend the afternoon and we got to share some good eats, as well. Most interesting was the enormous size of the matzo ball in Malcolm's matzo ball soup appetizer! We were convinced that it had been irradiated at nearby Indian Point! And so ended another successful fox hunt. Smiles abound around our big long table! A grand day it was!

Warning! The next people playing the role of fox will be my daughter Laura and I on a future date to be determined. Soon we will be scouting for a den. Prepare now, foxhunters!

Think VHF

The weather is getting much warmer, new green leaves are on the trees and sweaters and jackets can now be left at home. It must be time for E-skip! The six meter band has been warming up already with some memorable moments. On May 2nd and 3rd, lucky Magic Band DXers heard a remarkable station from a very rare grid square: FL55. It was Yuri, UT1FG/MM on a boat off the coast of Florida. Yuri held court for several hours each day raking in stations left and right. Some of the replies could be heard at my QTH, but many could not! Six meters was definitely open and the fun had obviously begun!

E-skip can also find its way to your TV set, even years after the American and Canadian analog to digital transitions. A good friend Mike Bugaj of The Worldwide TV-FM DX Association, caught some Cuban TV reception May 5th around 3:30 in the afternoon at his QTH near Hartford, Connecticut. Seeing Fidel Castro giving a speech makes a pretty good ID! Many stations are possible to catch on analog TV from The Caribbean, Mexico and Canada.

Attach a pair of rabbit ears to your TV, go back to the analog tuner, and be patient. You may see some amazing things!



Fidel Castro on analog E-skip VHF gives a clue about the source of transmissions.

If you are feeling very adventurous and lucky, try listening for a new transatlantic beacon on 2 meters. Look for GB3WGI from County Fermanagh in Northern Ireland. It's a joint venture between Brian, WA1ZMS,

Brian GI6ATZ and John, G4BAO and will be broadcasting with an ERP of 100 watts on 144.487 MHz. They are determined to prove that a 2 meter transatlantic path can be achieved. Point your Yagis east, lend an ear and help them out!

This month also brings to an end a good old friend on shortwave radio. Radio Canada International is scheduled to end transmissions from its famous Sackville, New Brunswick transmitter site on June 26. A drastic budget cut will force RCI to suspend nearly all of its operations permanently. All that will be left will be a spartan Internet presence offering news bulletins. I will sorely miss the interval signal chimes of 'O Canada' that I have heard for the past 47 years.



Radio Canada International TX site at Sackville, NB.

Please remember that the biggest VHF contest of the year, the ARRL VHF QSO Party begins at 2pm Eastern Time Saturday afternoon June 9th until 11pm Sunday night, June 10th. It is the number one time to operate on VHF, especially 6 meters, and log numerous amazing grid squares to fill your log books. ARRL Field Day is not far behind! The PCARA will once again be on the air the weekend of June 23 and 24, so please join us at Walter Panas High School, 300 Croton Avenue in Cortlandt Manor and share the fun! Everyone is welcome!

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



Foxhunt 12 results

PCARA's 12th Foxhunt took place in the year 2012 on Saturday May 12th – which was also *CQ Magazine's* WW Foxhunting Weekend.

As reported in the March issue, it has been four years since the last PCARA hunt was organized, and a check in the archives was needed to discover the previous winners from May 10th, 2008 – it was the joint team of Mike N2EAB and Joe WA2MCR. Unfortunately, Mike was unavailable on May 12, 2012, so

the fresh foxes this time around were Joe WA2MCR and Greg, KB2CQE.

As usual, the event began with a gathering of hunters at the Beach Shopping Center in Peekskill. Those signing in were Karl N2KZ with daughter Laura; Malcolm NM9J, Henry KB2VJP and Lovji N2CKD.

At 3:00 p.m. exactly, the fox station came on-air using the advertised frequency of 146.565 MHz. Beam antennas

were swung around and it looked as though a reasonably strong signal was coming from a direction due east of the Beach. As the first transmission faded into the ether, hunters set off in their vehicles



Karl, N2KZ takes a heading with his Yagi antenna from the Beach Shopping Center.

find a suitable spot for receiving the next transmission at ten past the hour.

Karl's path took him east along Route 202 with a first stop at the shopping center near the home location of Joe WA2MCR. Could Joe be operating from his own driveway? No, the direction was still eastward.

NM9J had set out from the Beach Shopping Center along Route 6, stopping at the old Hyundai dealership to take a reading. The bearing had swung around to ESE, suggesting a location in the Crompond area. Turning onto the Bear Mountain Parkway, the next stop was the Highway Depot on Arlo Lane, with a very strong signal still coming from ESE.

Meanwhile, N2KZ had been following directions from his long Yagi antenna and reached the Crompond Post Office on Baron de Hirsch Road, home to PCARA's famous PO Box 146. From the car park, the direction of the fox had swung southwest. Hot on Karl's heels was NM9J, who also stopped at the Crompond Post Office shortly after Karl had left. There was a confusing reflection coming from the southeast, but the direction of the strongest signal was now definitely to the west.

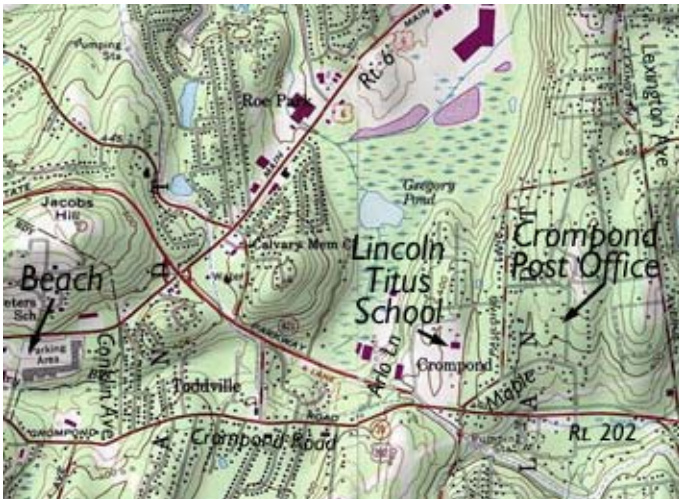
Karl and Laura headed down Lincoln Avenue toward Lincoln Titus Elementary School. There, tucked into a corner of the car park, partly hidden by trees, they found the foxes, with Joe and Greg transmitting from Joe's white Ford sedan. Shortly afterwards, they were joined by NM9J – who was later described by



L to R: PCARA foxes Greg KB2CQE and Joe WA2MCR are discovered by Karl N2KZ and Laura at Lincoln Titus Elementary School.

Greg as ‘screaming into the car park’. (Your editor thinks this was an exaggeration.)

Joe and Greg had been transmitting from a mobile whip mounted low and horizontal on Joe’s vehicle. The hunters informed the foxes that the remaining competitors Lovji and Henry were teamed up, but there was no sign of them at the fox’s lair.



Map of Peekskill/Cortlandt - Crompond area, showing landmarks during the 2012 Foxhunt.

As Henry KB2VJP did not have a directional antenna, he had joined forces with Lovji at the Beach Shopping Center. They missed two transmissions, then headed toward Blue Mountain Middle School. Lovji had to return Henry to the starting point, but he was able to join everyone at the “Place of Refreshment”, which turned out to be the Westchester Diner on Route 9A in Peekskill.

Foxes, hunters and family members all gathered at the Westchester Diner to discuss their experiences and enjoy an early evening meal. Congratulations to

Karl and Laura, who were presented with the first place certificate by Greg — we’ll hope to discover them, hiding in the fox’s lair at the next foxhunt.

- NM9J



L to R: Karl N2KZ and Laura are presented with their First Place certificate for the May 12 PCARA foxhunt by PCARA’s president Greg, KB2CQE.

Cambridge gold

Like most people who grew up in the 1960s, I’ve been a fan of the James Bond movies for quite a while. A combination of the techno-spy novels by English writer Ian Fleming, funding from the United States plus British studio skills produced an unbeatable sequence of films that began in 1962 with *Dr. No* and continued for another fifty years.

Watching early Bond movies on broadcast television was always worthwhile — but also something of a trial. The widescreen spectaculars were squashed into the 4 x 3 format of analog TV. Some of the prints used on television looked downright awful with faded colors, controversial scenes clumsily cut and so-so monophonic optical sound.

There was a major improvement in 2006 when a newly restored version of the Bond movies was released on DVD. The digitally-restored pictures by Lowry Digital and re-mixed digital sound track were a huge improvement, allowing the stories to be enjoyed on a smaller screen.

From 2008, a selection of the restored movies — plus some of the newer titles — were also released on Blu-ray disc. The main advantage of Blu-ray is the much higher screen resolution, with a jump from DVD’s 480i vertical pixels to 1080 vertical lines, progressive scan. If you have the chance, watch some of the early Bond movies on a Blu-ray player and high-definition TV set with external speakers. The digital transfer quality is excellent and you can fully appreci-

ate the art and craftsmanship of those movie makers in the 1960s.

Gold Bond

One of the Blu-ray movies that makes full use of 1080 vertical pixels is *Goldfinger*, filmed in 1964 in the UK, Switzerland and USA. The story concerns James Bond's investigation of industrialist Auric Goldfinger for international gold smuggling and contains several memorable scenes, culminating in an assault on the US Bullion Depository at Fort Knox, Kentucky.



Goldfinger on Blu-ray

An early scene in the movie (and in the Ian Fleming novel) depicts James Bond's first encounter with Goldfinger at a Miami Beach hotel. Bond suspects Goldfinger of cheating at cards and goes into a room at the hotel where he discovers Jill Masterson – memorably portrayed by English actress Shirley Eaton. Miss Masterson is observing the card table from the hotel balcony through binoculars, then revealing the opponent's hand by VHF radio transmission to Goldfinger's earpiece.

The interesting feature from a UK radio amateur's point of view is the equipment in use. Clearly visible on a chair next to Miss Masterson is a Pye Cambridge mobile transceiver, with the usual push-to-talk hand microphone replaced by a desk microphone.



Jill Masterson used a Pye Cambridge mobile transceiver for unauthorized one-way communication with her boss.

The reason this particular radio was so easy for me to spot is that back in the UK, I had a collection of Pye Cambridge transceivers, covering the VHF/UHF bands of 4 meters, 2 meters and 70 centimeters. I helped several local amateurs convert their own Cambridges from the commercial two-way bands onto amateur radio frequencies.

These radios were manufactured by Pye Telecommunications Ltd, a UK company with headquarters in the East Anglia City of Cambridge. It was formed in 1944 as a subsidiary of broadcast radio and television manufacturer W.G. Pye & Co Ltd, to manufacture radio communication equipment pioneered during World

War II. Pye Telecoms was the premier manufacturer of two-way radio equipment in the UK from the 1950s until the 1980s. It was acquired in 1976 by the Dutch multinational giant Philips. I had a tour of the factory in the 1960s and Pye Telecoms personnel were also members of the Cambridge and District Amateur Radio Club (callsign then G3PKF, now G2XV).



The 1978 shack of G3VNZ in Southport, England featured two dash mount Pye Cambridges, one trunk mount UHF Cambridge and several other items of Pye equipment.

The Pye Cambridge pictured in *Goldfinger* is an AM10D model. The "AM" indicates the version for amplitude modulation and the "D" indicates a dash-mount model.

Dash mount radios from the early 1960s were quite sizeable — the Cambridge measured 12¼" x 9" x 4¼" — and it needed a substantial, steel dashboard to mount securely.



Pye Cambridge AM10D from brochure.



Pye Cambridge mounted below the dash in a right-hand-drive UK automobile.

A major selling point of the Pye Cambridge was its all-solid state receiver. The earlier Pye Ranger relied on thirsty vacuum tubes, sucking several amps from the automobile battery.

When the AM10D Cambridge appeared in 1963,

transistors with adequate VHF and UHF performance were just becoming available, and the RF stages of the VHF model had AFZ12 germanium PNP transistors capable of operation to 200 MHz. (The first thing radio amateurs would do is replace these with AF139 or AF239 UHF transistors, for higher gain and better noise factor.)

The Cambridge transmitter still relied on vacuum tubes, using a Mullard QQV03-10 (6360) dual tetrode in the RF output stage. The specification was 5 to 7 watts AM output. The transceiver has a three position rotary “POWER” switch on the front panel, labeled “OFF”, “RX”, “S’BY”, which also features in the movie.

In a real-world Cambridge, the power switch OFF position disconnects the 12 volt supply. In the RX position, the receiver circuits only are energized, along with the right-hand green RX lamp on the front panel — for a battery drain of about 0.3 amp. In the S’BY position, the 12 volt supply is applied to the heaters, increasing battery drain to 1.5 amps. Once the vacuum tubes have warmed up, which takes about 30 seconds, the microphone PTT button could be pressed, applying 12 volts to the transistorized inverter, energizing the transmitter tubes and increasing battery drain to 4.6A. The red TX lamp on the front panel is also illuminated.



Jill Masterson’s Pye Cambridge had the green ‘ON’ and red ‘TX’ front panel lamps lit.

If you watch the movie *Goldfinger*, you can see the power control in operation. At the beginning of the sequence, the Cambridge is shown with right-hand green “ON” lamp and left-hand red “TX” lamp both lit — we’ll presume that Miss Masterson has the PTT permanently wired on to allow continuous transmission from her desk microphone.

When James Bond — played by Sean Connery — walks in and interrupts the transmission, he turns the power switch on the front panel to the left and one of the lights goes out — but it’s the green “ON” lamp that goes out, not the red “TX” lamp. Later he turns the transmitter back on by rotating the power control from RX to S’BY and the green RX lamp comes back on.

The Blu-Ray disk reveals some other features of the Pye Cambridge in *Goldfinger*. First of all, the Red Pye badge on the front panel has been painted over red. In fact, the whole front panel, which was a light, Cambridge blue in Pye’s color scheme, has been painted over, including the original “CAMBRIDGE” lettering to the right of the Pye roundel (still visible under the paint on Blu-ray). Fortunately, the aluminum escutcheon for the rotary controls is still in place with the original lettering “Transistorised Radio Telephone”, a round “am”



sticker under the microphone cable and labels on the “VOL-UME”, “SQUELCH” and “POWER” controls. The metal case



Real world six-channel Pye Cambridge with original Pye badge and lettering.

also looks as if it has been repainted. The original Pye Cambridge used a lighter, hammer-finish blue.

One final point visible on the Blu-Ray version — Miss Masterson’s Pye Cambridge has a telescopic antenna at the rear left, around 28 inches long. If it’s a quarter wave, that would put the transmit frequency around 100 MHz. The film makers seem to have forgotten about the SO-239 antenna socket on the left side of the Cambridge... not to mention why a British AM transceiver would be in use at a hotel in Miami Beach, Florida. Perhaps Mr Goldfinger brought it with him from his base in the UK.

I should mention that the opening Hotel sequence is a clever mixture of location shots at the Fontainebleau Hotel in Miami Beach, studio shots filmed at Pinewood Studios, UK and back projection to mix the two together where necessary. No wonder there was confusion in the props department about the choice of radio and the frequency (100 MHz AM/FM frequencies were in use by UK Police Forces rather than broadcasters at that time). If you watch the movie again, see if you can tell which shots were filmed on location and which are in the studio — one clue is in the shadows from the lighting.

For more information on Pye Telecommunications and the famous radios they manufactured, take a look at this web site: <http://www.pyetelecomhistory.org>

Future view

James Bond movies have always been both of their own time, and ahead of their time. If you watch *Goldfinger* today, think about the vehicle tracker and

green moving map display fitted into James Bond's Aston Martin DB5. How did they pack all that 1964 technology into a small sports car? Today, we can



Moving map display, agents, for the use of (1964 version).

achieve the same thing in a radio amateur's vehicle with microprocessors, VLSI, a GPS receiver and APRS — but "Q" must have been working overtime to shrink all that technology into the available space 48 years ago.

And then there is Goldfinger's "industrial laser" which nearly divided 007 into two fractions in 1964.

This was very exotic technology at the time (and no doubt achieved in the movie with special effects rather than a real laser), but nowadays, many of us have laser pointers for our PowerPoint slides, and the Blu-ray player itself incorporates a blue laser to read data from the rotating disk.

There is one point in *Goldfinger* that always brings a smile to a chemist's face. Gold is a very dense material – its specific gravity is 19.3 – so a gold ingot is extremely heavy. In one of my early jobs, I remember plant workers loading lead ingots into a furnace that converted the metallic lead into lead oxide (litharge) for stabilizer manufacture. Lead has a specific gravity of 11.3, and a lead ingot sized 10" x 3" x 4" weighs approximately 50 lb, so a man could lift one with difficulty. A similar size gold ingot would weigh around 84 lb, and would probably need two people to lift it.



*Gray colored lead ingots are **very** heavy.*

And yet, in the movie, James Bond carries a gold ingot around with him and gold bricks are thrown around Fort Knox with ease... Apparently the "gold" bars used in this movie were actually made of aluminum (specific gravity 2.64), covered with gold leaf or gold paint.

Some other science gaffes in *Goldfinger* have been investigated by Mythbusters and are described on this web page: <http://followthelemur.wordpress.com/2011/03/25/the-schiensh-of-bond-goldfinger/>

The next James Bond movie, *Skyfall*, will be released theatrically in November, with Daniel Craig in the lead. And to celebrate fifty years of James Bond, the complete James Bond Film Collection with all 22 previous titles should be released on Blu-ray by Fox/MGM in the fall for an estimated \$200-\$300.

- NM9J

Phantom antenna - W2CH

I recently ordered two Laird "Phantom" antennas from AES (<http://www.aesham.com/>) and installed them over a weekend. After seeing these "low profile" antennas in the AES catalog, I was interested as an experiment in how they would perform. I already had one trunk lip NMO mount, and I ordered a second one from AES with my purchase.

Some Internet research showed these antennas are aimed at the commercial market, with models for various VHF and UHF frequency ranges in either white or black. There is no dual-band VHF/UHF model, as found in amateur mobile antennas. The gain for the UHF models is shown as "3dB-MEG" compared to a UHF whip, while the VHF antennas have Unity gain.



Laird Phantom antennas are available in white or black.

I placed the mounts on the trunk lip of Marylyn's Monte Carlo for simplicity of installation. The manufacturer recommends vehicle roof mounting which is ok for commercial vehicles, but not possible for me to do with Marylyn's car. As I understand their intent, the manufacturer wants the antennas to have as much of a ground plane counterpoise as possible. The antennas



UHF and VHF Laird Phantom antennas mounted on the trunk lip of Marylyn, KC2NKU's vehicle. The VHF antenna looks like an upturned coffee cup. [Photo: W2CH]

were easy to install on the NMO mounts, and I ran the coax cables into the passenger compartment. As most of my rigs have one SO-239 antenna port for VHF/

UHF, I utilized the Larson VHF/UHF duplexer that I had purchased at the January 2012 PCARA Bring and Buy Auction, to combine the two antennas, and ran a short cable to the rig.

One other matter with these antennas, is that while the UHF antenna is broadband and covers the 430-450 MHz amateur band without any further tuning, the VHF antenna has a tuning port with plastic cover to allow adjustment for lowest SWR over a desired 1 MHz portion of the range purchased.

I chose 147.00 MHz as that center frequency, to cover the upper part of the 2 meter band, where I do most repeater operation. I used my VHF/UHF SWR/Power Meter at a recommended low power setting of 5 to 10 watts from the transceiver to accomplish the tuning. I didn't find much change in SWR with the tuning procedure, and performance was not very different on the repeater sub-band around 145 MHz as well.

The VHF antenna has a recommended maximum RF power rating of 60 watts, with 150 watts for the UHF antenna. Why the UHF version has a higher power limit I am not sure.

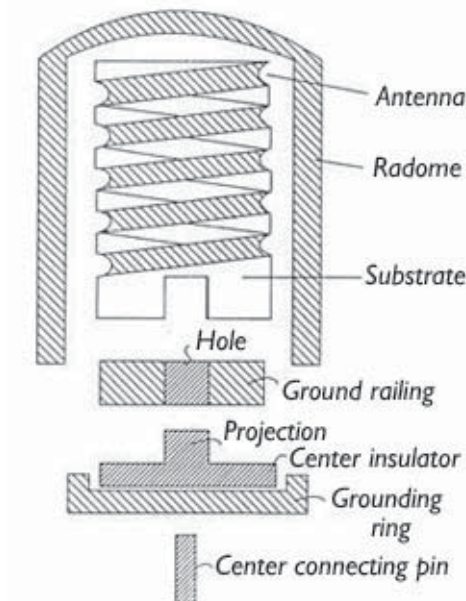
I have not driven around with this new installation yet, to see how these antennas perform compared to my previous mobile antennas.

- Ray, W2CH

Editor's note:

Laird Technologies (<http://www.lairdtech.com/>), parent of Antenex, describes their Phantom range of antennas as having "patented True Field Diversity" technology. They say this provides both vertical and horizontal polarization in a low-profile, sleek design that ensures uninterrupted transmissions in 'urban canyons' and rural drop off areas. In US Patents assigned to Antenex, inventor Wayne Openlander, W9NZB describes an antenna consisting of a thin, rectangular

printed circuit board, with a "spiral" pattern of conductors on front and rear of the board making up the

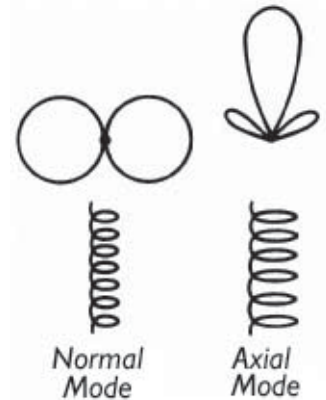


Drawing of "field-diverse" antenna from US Patents 5,977,931 and 6,292,156.

radiating element. Plated-through holes in the circuit board can be used to connect antenna elements on both sides of the board — it looks something like a toaster element, but is described as a "flat helix".

A radome enclosure made of Delrin or ABS covers the circuit board, protecting it from the weather and from damage by vandals. According to Laird, the length and width of the helix are chosen to size the helical antenna between linear and circular polarization modes, providing cross-polarized transmission.

(A wire helix operates in 'normal mode' when the diameter is less than 0.1λ — an example is a 'rubber duck' short helical antenna, which radiates with linear-polarization at 90 degrees to the axis of the helix. But when the helix diameter approaches 0.3λ , the pattern changes to 'axial mode' with circular polarization radiated in the direction of the axis of the helix.)



Laird also says that their Phantom antennas are specified by public safety, military, utility and transportation providers. Phantom antennas have been installed on Apache, Black Hawk, and Chinook helicopters as part of the friend/foe identification system as well as on Humvee and Bradley military vehicles.

- NM9J

NY QSO Party

Approximately 300 logs were submitted for the 2011 New York State QSO Party. Unformatted results are now published on the web site: <http://www.nyqp.org/>.

Winner of the New York Phone plaque is KM2O, David of Glenmont, NY. This particular plaque was sponsored by PCARA. David scored 744 phone contacts, with a total score of 78,120.

Our own Joe, WA2MCR scored 286 phone contacts, with a total score of 24,000 points. NM9J also appeared, considerably lower down.

The next New York State QSO Party, sponsored by Rochester DX Association, takes place on Saturday October 4, from 1400 GMT (10:00 a.m. Eastern) for 12 hours until 0200 GMT the following day. Rules are available on the nyqp.org web site.



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

N2CBH: 448.725MHz -5.0, PL 107.2Hz

PCARA Calendar

Sun June 3: PCARA monthly meeting, Hudson Valley Hospital Center, 3:00 p.m.

Sat June 23 - Sun June 24: PCARA Field Day, Walter Panas High School, Cortlandt Manor.

Hamfests

Sat June 2: BARA Spring Hamfest, Westwood Rg HS, 701 Ridgewood Rd, Washington Twnshp, NJ. 8:00 am.

Sun June 3: LIMARC outdoor Hamfair, Briarcliffe College, 1055 Stewart Avenue, Bethpage, NY. 9:00 am.

Sun June 10: Hall of Science ARC Hamfest, Hall of Science Parking Lot, 47-01 111th Street, Queens, NY. 9:00 am.

Sat June 16: Raritan Valley RC Hamfest, Piscataway HS, 100 Behmer Road, Piscataway NJ. 7:00 am

Sat June 16: Newington ARL NARLFest, St. Mary's School, 652 Willard Ave, Newington, CT. 8:00 am.

VE Test Sessions

Jun 2: PEARL, Putnam Co Bureau of Emergency Svcs, 112 Old Route 6, Carmel, NY. 9:00 am. Contact NM9J.

Jun 2: BARA Hamfest, Washington Township NJ. 8:00 am

Jun 7: Yonkers ARC, Yonkers PD, Grassy Sprain Rd, Yonkers, NY. 8:30 am Contact Dan Calabrese, 914 667-0587

Jun 14: WECA, Westchester Co Fire Trg Center, 4 Dana Rd., Valhalla, NY. 7:00 p.m. S. Rothman, 914 831-3258.

Jun 18: Columbia Univ VE Team, 2960 Broadway, 115 Havemeyer Hall, New York NY. 6:30 p.m. Contact Alan Croswell, 212 854-3754.



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