



PCARA Update



Volume 15, Issue 1 Peekskill / Cortlandt Amateur Radio Association Inc. January 2014

Colonial column

The 2013 PCARA Holiday Dinner held at its new venue, the Cortlandt Colonial Restaurant was a **most** enjoyable event! The event was well attended by about a dozen members on December 1st, and everybody seemed to really enjoy themselves. The food and the service were excellent, and the atmosphere was quiet and relaxed. I can safely say that the experience was a success and most certainly a vast improvement over last year's fiasco. Future Holiday Dinners will surely share the same location.



PCARA's 2013 Holiday Dinner was held at the Cortlandt Colonial restaurant on Sunday Dec 1.

The PCARA **Bring and Buy Auction** is just around the corner. There are just a few more days left to gather up all your treasures and get them ready to bring along with you to the January 5, 2014 meeting at Hudson Valley Hospital Center. On that date you'll have an opportunity to sell your no longer needed gems, while having the chance to find a few new ones of your own. Our



Auctioneer and Master of Ceremonies Malcolm, NM9J will certainly do his best to help you earn "top dollar"

for each of your items. Please join us!

At 7:00 pm on January 24, 2014 PCARA is scheduled to hold a Ham Radio Introduction and Demonstration to Cub Scout Pack 118 at Furnace Woods Elementary School in Cortlandt Manor, NY. This is an excellent opportunity to introduce Amateur Radio to a "new generation" and perhaps plant a few seeds that will grow into an interest in our hobby. In order to make this a success, we will need members to participate. If you are interested in helping out, please let us know by sending us a note at: *mail[at]pcara.org*. This will be a major topic of discussion at the January meeting.

Our next regularly scheduled meeting is on Sunday January 5, 2014 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

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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.

Adventures in DXing

- N2KZ

Looking for Advice

I am good at procrastinating. No, I am very good at procrastinating. For the past ten years or so I have been looking for a 'real' ham radio. My current QRO rig is my beloved Heathkit HW-16 built in 1968 with my Dad looking over my shoulder. Besides that, I have a bevy of QRP CW kit transceivers and fourth-hand single band rigs that friends have wanted to discard or sell for less than a song. Let's just say that I have made quite a ham radio career with very little resources.

My friends have inspired me to seriously look for that elusive first 'real' rig. Malcolm, NM9J, was the first with his beautiful Icom IC-706. One Field Day long ago, I watched Malcolm operate his IC-706 on the top of Bear Mountain with his MFJ paddle creating smoke from hundreds of continual contacts. All I could say and think was "Wow. That is really nice."



Karl, N2KZ operates CW from PCARA's Field Day site on Bear Mountain in 2002. Icom IC-706MkIIIG at far right.

A few years later, Joe, WA2MCR, provided further inspiration with his magnificent Icom IC-7000. This was the IC-706 concept, now with a color display and all sorts of bells and whistles. Another good friend, Paul, W2BP, loves his IC-7000, too. So far, so good.



Icom IC-7000 color display.

Being an expert procrastinator, I waited and waited. The IC-7000 Internet reflector started to mention problems with heat, audio processing and receiver hiss. As time has gone by, the IC-7000 'flame out' has become quite well

known. A tiny percentage of these little rigs have had problems especially with losing finals and hot heat sinks. What they don't tell you is why. Chances are that if you run 50 wpm CW continually during 48 hours of contesting at maximum power output or your mobile antenna match is 5:1, you may have a problem. You think?

Today's medium-priced HF transceivers offer even more options and an endless range of design miracles to meet your operating needs. All the major manufacturers are now enjoying the fruits made possible after many generations of continuing transceiver design and development. Current ham radio catalogs are filled with magical devices that are in a different universe from the tube rigs we grew up on. Compare a military surplus R-390A boat anchor from yesteryear to a Kenwood TS-2000. Get the picture?



Collins R-390A tube HF receiver.

Recently, I decided to look for professional advice in my quest for the ultimate rig. I wrote a brief e-mail asking all the major amateur radio equipment vendors for their thoughts regarding today's market: "I am looking for a 100 watt HF transceiver that would cover 160 through 6 meters. I operate exclusively QRP CW with a straight key mostly with QRP transceiver kits and simple wire antennas. I would like to spend no more than \$2K. Any suggestions would be appreciated. What are your biggest sellers?" The answers were revelatory!

Ham Radio Outlet liked Kenwood: "I think the perfect choice for you would be the Kenwood TS-590S. It is a splendid radio with everything you need to operate at 100 watts or greater if you choose to. It has all the filters already installed and can be connected to a computer with just



Kenwood TS-590S HF/6 meter transceiver.

a USB cable if you would like to do that. It is a great selling radio with hardly any that come back to be repaired or 'dead out of the box.' Kenwood support is awesome and there is the Kenwood resource page that contains every bit on

info on how to use and operate the radio for any condition or mode you require. I think it is the best choice.”

Amateur Electronic Supply was not as decisive: “Check out the Icom IC7410 or IC7200. Kenwood has the TS590S. Yaesu offers the FT450D or the FTDX1200. It’s hard for me to say which one to go with. All have a built in antenna tuner except for the IC7200.” Universal Radio misunderstood the question: “There are three popular choices currently available for working 160 through 6 meters, 100 watts. They are the Alinco DX-SR8T, DX-SR9T and Icom 718. All three sell for under \$1,000.” Karl replied: How about up to \$2000?



Rebecca, KK4SKL, at Gigaparts, really seems to know her stuff: “Glad to hear you’re in the market for a new radio! If you’re looking to spend less than \$2,000, then the best value you’ll get is the FTDX1200. It’s not only one of our best selling radios. It is right up there in quality with the best HF radios in its price range and its still about \$100 to \$150 cheaper.

Especially as far as CW is concerned, this one offers the best perks. There is more CW filtering and more



Yaesu FT-DX1200 HF/6m transceiver.

features, so I think you’ll appreciate that. The Kenwood TS-590S would be the next best seller around here.”

“I would still pick the DX1200 over it, but it also has a lot to offer and you wouldn’t go wrong if you went with that. The receiver in the TS-590 is probably one of the best out there. People really hold it up high on the RX end of things. It’s also more compact and has a USB port for instant connectivity to PC.”

“I think you would find yourself really satisfied with a DX1200. I’m not sure if you have been in the market for any others or if you’ve seen a different one that caught your attention. Personally, the first thing I think of when I look for a good value HF/6M rig, I think of the 1200.”

The January 2014 QST also gave the new Yaesu FT-DX1200 a very favorable review. Rebecca at Gigaparts really filled my head with new food for thought! Still very high on my list of current transceivers is the Icom IC-7410 with its big display and its

thoughtful comprehensive design. So many choices! A procrastinator’s dream come true! What should I do? Which transceiver would you pick?



Icom IC-7410 HF/6m transceiver.

Comments would be greatly appreciated!

The Allure of Ham Radio

Just what is it about ham radio that has all of us so intrigued? For me, it is the mystery in the miracle of how it all works. Only a wizard could create a dream more magical! You take a whole bunch of man-made parts and create a system that can send your voice or data all over the world through the air. Not a bad trick, Merlin! I think a lot of us are amazed at the distances we can achieve. That voice is from so far away and they can hear me!



“What are the Wild Waves Saying?” – as applied to radio, on an Igranac plug-in coil from the 1920s.

I’m especially in awe by enjoying the world of QRP. Using a three inch by three inch circuit board and a handful of AA batteries, my one watt signals have travelled thousands of miles away. I don’t think the transmit side is all that critical. It is modern receiver technology that is truly amazing. Could they be any more sensitive?



Karl operates a Small Wonder Labs SW40 CW transceiver.

Starting with the breakthroughs developed by Edwin Armstrong and his team at Columbia University

just after World War I, receiver design still continues to improve in leaps and bounds. Digital signal processing is only the latest of a long line of inventions that have



Edwin Armstrong with RCA superheterodyne receiver (1924).

added to our fascination. There seems to be no bounds to what we can hear from far away.

There is a seductive fascination when listening to the

radio. Due to the natural factors of propagation, you simply never know what you might hear next. There are hundreds of thousands of amateurs just in the United States alone but the allure goes much farther than that. I am quite sure millions of casual listeners still marvel at the carrying power of radio signals over the miles especially via medium and short wave broadcasts.

I remember my indoctrination to the fray. My father used to listen to stations far away while getting ready for work or just before bed at night. With just simple five tube household radios, he would pick up news and information from provinces and states hundreds or thousands of miles away. I continued by listening to modest transistor radios that I would literally wear out. (I still do!) This was decades before the Internet existed. How could a little kid not be intrigued? In one way or another, aren't we all fascinated?



Don't forget — Straight Key Night, Dec 31-Jan 1.

back to the basics of radio communication. Tune in between 7 pm (Eastern) New Year's Eve and 7 pm New Year's Day and listen to the slow code coming from brass straight keys all over the continent. The best places to listen are the CW segments of the 80 and 40 meter bands: 3500 to 3600 kilohertz and 7000 to 7125 kilohertz. Even better, tune up your gear, dust off a straight key and join in! It is a time machine all its own!

Happy New Year and 73s from Karl, N2KZ 'The Old Goat.' dit dit

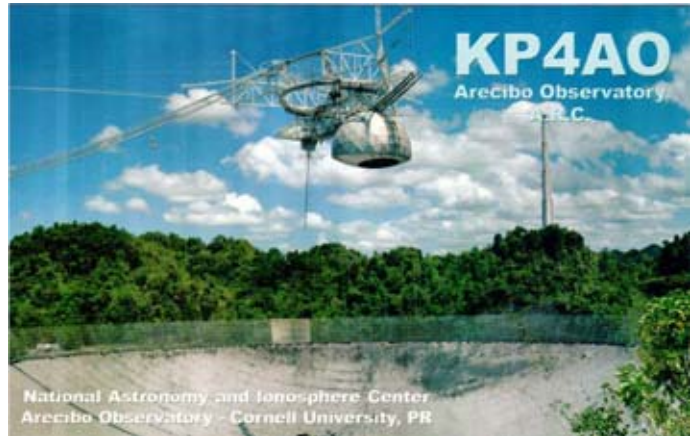


The beginning of a new year always serves as a reminder of our past. The ARRL's Straight Key Night provides great incentive for amateurs to bring old gear out of storage and to revert

Arecibo anniversary

Ray, W2CH recently worked the special event station celebrating 50 years of the Arecibo Observatory in Puerto Rico.

Special event station **KP4AO** was on the air for just one day on November 10, 2013 using 20 meter phone. Head of telescope operations Angel Vazquez, WP3R said that KP4AO operators would be transmitting from the control room of the William E. Gordon telescope, which was commissioned on November 1 1963.



Cornell University astronomer and engineer William E. Gordon originally designed the giant radio telescope to study the ionosphere and ion trails. He chose Puerto Rico as the construction site since it was within the tropics and had an existing natural sinkhole that would accommodate the 1000 foot dish. Construction began in 1960 and the telescope was inaugurated three years later in 1963.

The dish has been upgraded several times and has taken part in international investigations of pulsars, neutron stars and the presence of fundamental molecules in distant galaxies.

The "National Astronomy and Ionosphere Center" is still managed by Cornell. It has featured in several movies including *Contact* and James Bond's 1995 excursion *GoldenEye*.

Ray received a certificate and a QSL card for his contact with KP4AO. He is hoping to visit the Arecibo site one day since it has special opening hours for visitors.



Goodbye to tungsten?

Another milestone on the road to energy efficiency will be passed on **January 1, 2014**. From that date, standard incandescent lamps in the 40-60 watt range can no longer be imported or manufactured.

This topic has been covered before in the *PCARA Update*. Six years ago, in the January 2008 issue, we described how the Energy Independence and Security Act (EISA) of 2007 required electric lamps to become more efficient over the subsequent 13 years to 2020.

As a first step, light bulbs offered for sale had to use 25% to 30% less energy than standard incandescent lamps. This rule was applied to standard 100 watt bulbs in 2012, to 75 watt bulbs in January 2013 and as we reach January 2014 it will also be applied to standard 40 watt and 60 watt bulbs. The act applies to *manufacture and import* of lamps, so there could still be old stock available in stores after the cut-off date. My own check in local supermarkets suggests that some stores have cleared their shelves already, while others may still have a few old-style 40-60 watt tungsten lamps in-stock.

White-hot watts

Incandescent lamps with equivalent 40-100 watt output are still available. These are the higher efficiency tungsten-halogen type. For example, a 72 watt halogen-incandescent lamp can produce the same 1600 lumens of light output as a 100 watt standard incandescent. These lamps contain a high pressure quartz-halogen bulb inside a larger glass envelope, and can be a good choice where there is a need for immediate full brightness and good color rendering.

Just be aware that the quartz-halogen capsule runs much hotter than standard tungsten, and at high pressure — so read the safety warnings on the box, use an open fixture and keep these lights well away from any combustible material.

Halogen-incandescent lamps provide sufficient performance for the present, but this will not be enough to meet the 2020 requirement of a 70% improvement in efficiency. That will need newer technologies, including compact fluorescent lamps (CFL) and light emitting diode lamps (LED).

Standard tungsten incandescent lamps should not



Philips EcoVantage halogen bulb produces 750 lumens (60 watt equivalent) with only 43 watts.

disappear altogether. There is a list of **specialist lamps** that are exempt from the EISA regulation, including: 3-way bulbs, decorative globes, appliance bulbs such as fridge lights and rough service bulbs as used in garage door openers and ceiling fans.

Cheap and cheerful CFLs

Compact fluorescent lamps were the first real alternative to tungsten to appear at reasonable prices. You can find them in most stores nowadays, with the majority manufactured in China. The *PCARA Update* article from January 2008 described some disadvantages of CFL lamps, including the electronic ballast with its 50-60 kHz free-running oscillator. This can cause RF Interference to an HF transceiver, to nearby AM receivers, and to “atomic” clocks which rely on reception of WWVB on 60 kHz. Further experience with these types of lamp suggests additional problems, including a long warm-up time after switch-on before full brightness is achieved, poor color rendering and a steady drop-off in light output as the lamp ages. Frequently switching CFLs on and off also shortens their life. There is concern about UV radiation from CFL lamps, and about the small amount of mercury they contain — which can escape if the glass envelope is broken.

One alternative to CFLs that I prefer for some applications is the older GE “Cirlite” and Philips “Circuline” design, with a circular fluorescent tube and magnetic ballast. The advantage of the magnetic ballast is that it runs at power line frequency (60 Hz) and generates almost no RF interference once the discharge has been started. Light output still degrades with time and Cirlites are not suitable for smaller enclosures.

Lively LEDs

At the moment, LED lamps are the best hope for the future. They offer higher efficiency than compact fluorescents, turn on instantly and should not suffer from the reduced light output that CFLs experience as the filament degrades. We have reported in the past on LED lamps, from the first models with strings of small white-light LEDs (*PCARA Update* December 2008), through noisy models from GE (March 2010), up to an RF generating EcoSmart lamp from Home Depot which stopped my garage door opener from operating (*PCARA Update*, October 2011).



Philips CFL bulbs produce 1250 lumens each, equivalent to a 75 watt bulb, with only 20 watts consumption.

Since then, technology has improved and the prices of LED lamps have been falling. Instead of the stark white light with a blue cast from those early LED lamps, today's models have much warmer colors and better color rendering.

My previous experience suggested that Philips LED lamps produce less RF interference than other brands such as EcoSmart and GE. This is backed up in tests by John Huggins, KX4O (<http://www.hamradio.me/station/led-ceiling-lights.html>).

ARRL has published comprehensive test results on "Light Bulbs and RFI" in the October 2013 issue of QST. Spectrum plots for emissions from the tested lamps are available at <http://www.arrl.org/qst-in-depth>. ARRL's Mike Gruber, W1MG concluded that most brand name bulbs meet the conducted emission limits — but many "no-name" lamps imported from overseas do not.

In recent months, higher lumen LED models have become available, equivalent to **75** watt and **100** watt incandescent lamps. I have tried some of these lamps and while their light output is excellent, I found that as the power rating increases, so does the possibility of RF interference. One Philips 75-watt equivalent LED lamp in a ceiling fitting was producing S-9 interference on a nearby 2 meter handi-talkie.

Fortunately, there was an easy fix, with some split ferrite cores clipped over the lamp wires. Another Philips 75 watt-equivalent LED lamp produced low-level interference in a nearby AM radio.

These Philips LED lamps use "remote phosphor" technology in order to produce a warm light, evenly spread all around the bulb. As explained in the December 2008 article, the early white-light LEDs relied on a gallium nitride LED which produces narrow-band blue light with a yellow phosphor coating immediately over the LED junction to convert some of the

narrow-band blue light to broad-spectrum yellow light. This produces an optical spectrum with a sharp peak in the blue wavelengths and a lack of warm, red light. In addition, the output from these point-source LEDs was highly directional.

Philips "remote phosphor" design moves the yellow phosphor away from the junction of the blue LEDs to the outside of the lamp. Three LED arrays fastened to the central cooling structure point outwards and each one is covered by its own "remote phosphor" plastic cover. The switch-mode power supply with dimmable LED driver is housed inside the hollow cooling structure, which could be molded from metal alloy or from a thermally conductive plastic. Curved slits in the cooling structure enhance heat dissipation by the chimney effect. There is a fascinating "tear down" of a Philips lamp at: <http://www.edn.com/electronics-blogs/readerschoice/4311242/Remote-Phosphors-Philips-LED-bulb-Tear-down-Part-II>.

Philips specifications suggest a very long life for these LED lamps — without the slow reduction in output of CFLs. The best designs can be dimmed and don't mind being switched on and off multiple times — a procedure which can shorten the life of a CFL used in a stairway or closet. The color spectrum of these modern LED lamps looks much better than the earlier white-light LEDs — though there is still a peak in the blue light.



Philips "remote phosphor" design moves the yellow phosphor away from the LEDs to the outside of the lamp.



Components of a Philips "remote phosphor" LED lamp.



Ferrite chokes clamped over ceiling lamp cable.

Proceed with caution

If you start replacing your tungsten lamps with LED lamps, I would proceed cautiously. Perhaps change one bulb at a time and check that it is not causing any interference to nearby AM radios or to your HF equipment. If you can, stay with the lower-power 40 watt and 60 watt equivalent lamps, which seem to cause less RFI than their higher-powered brethren and are much more reasonably priced. I would forecast that the price of 75 watt and 100 watt equivalent LED lamps will fall as

sales volume builds up.

As an aid to choosing, here is a table of typical light output in lumens from standard incandescent lamps and the power consumption of halogen-incandescent, CFL and LED lamps with equivalent brightness.

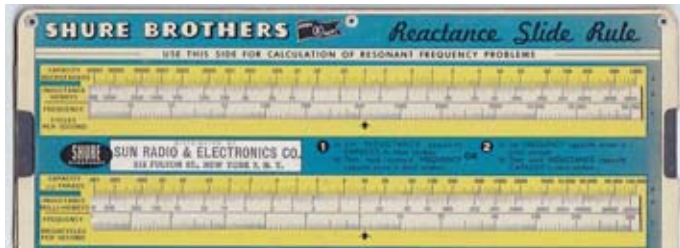
Incandescent watts	Lumens	Halogen watts	CFL watts	LED watts
100W	1600 lm	72W	26W	19W
75W	1100 lm	53W	23W	17W
60W	800 lm	43W	15W	12W
40W	450 lm	29W	11W	9W

- NM9J

More slide rules

In the December 2013 issue of *PCARA Update* there was an article “Calculating interest” about aids to calculation, before and after arrival of the electronic calculator. The pictures of slide rules evoked memories from Mike W2AG, who sent photos of slide rules from his own collection.

Mike wrote: “The Shure chart is probably as old as I am, displaying the “Army-Navy E” flag of WWII.”



“The RCA one, just a plastic ruler with any slider missing, has the scribbled initials of Harold W. Kaye, W2KKE, from whose estate I bought a Hallicrafters HF station around 1970.”



Mike also recalled some circular-format slide rules that he has used, including an original ARRL OSCAR pass calculator, a Bell System power cable calculator, and — an old standard tool of pilots — the heavy-metal two-sided Jeppesen flight computer.

For more photos of slide rules ancient and modern, pay a visit to: <http://sliderulemuseum.com/>

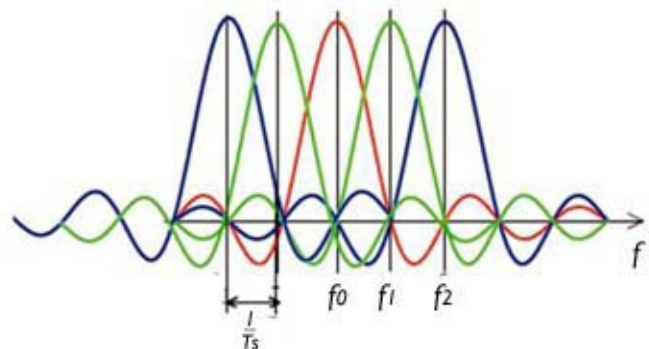
Radio reprieve

News came from the United Kingdom on December 16 that analog broadcasting still has a future — for the time being. The UK Government had previously announced in 2009 that most analog radio services on VHF-FM would be switched off in 2015, to encourage listening to Digital Audio Broadcasting (DAB). However Communication Minister Ed Vaizey has now said that the analog closing date will be delayed, with no definite date set for switch-off.

Digital radio is still being encouraged in the UK and there will be additional investment by government and broadcasters in the DAB infrastructure. Broadcast television is fully digital already — the changeover from analog to digital was completed in 2012, a few years after the 2009 analog TV switch-off in the USA. But, just as in the USA, penetration of digital radio has proved less popular than for TV.

Digital radio in Europe is based on the DAB (Digital Audio Broadcasting) Eureka-147 standard, which is quite different from iBiquity’s IBOC “in-band on-channel” scheme as employed in the USA. DAB transmissions in the UK are in “Band III”, the VHF high-band frequencies of 174-230 MHz previously used for analog television — and still in use for TV by certain countries. Two of the European broadcast channels (11 and 12) overlap with our USA 1¼ meter amateur radio band, 222-225 MHz.

The DAB modulation scheme is **OFDM** (orthogonal frequency-division multiplexing), where data is split across multiple, closely spaced subcarriers. “Orthogonal” means that the subcarriers are placed on orthogonal frequencies, tied into the symbol rate, so the peak of each carrier’s modulation spectrum coincides with troughs from the adjacent subcarriers.



OFDM modulation scheme uses multiple subcarriers. In the diagram, the peak of the modulation spectrum (red) for subcarrier f_0 coincides with nulls in the spectrum from the adjacent subcarriers at f_1 (green) and f_2 (blue).



OFDM is also used in other applications where a high data transmission rate has to be fitted into limited bandwidth. Examples include ADSL modems for voice-line Internet access, IEEE-802.11 Wi-Fi, DRM, cell-phone data, U.S. HD-Radio, and European broadcast Digital TV.

In the UK DAB scheme, each multiplex, occupying a single 1.712 MHz Band III sub-channel, contains 1,536 subcarriers, spaced 1 kHz apart. After error correction, each multiplex can carry 1,184 kbps of digital data. This bandwidth is split among several radio stations, for example the BBC National Multiplex on Channel 12B, 225.648 MHz center frequency, carries 10 or more program services including BBC's Radio 1, 2, 3, 4, 5 Live, 6 Music etc. Each stereo service is given 128 kbps *maximum* apart from BBC Radio 3, a classical music channel which receives a little more bandwidth. Mono services are only allocated 64-80 kbps.



Stations in the BBC's national DAB multiplex.

DAB employs a **single frequency network**, in which all transmitters in a country operate on exactly the same frequency. The BBC currently uses 230 of its main station transmitter sites and medium size relays to broadcast the National Multiplex. This covers 93% of the UK population. An additional 162 transmitters will be added shortly to increase coverage to 97%. The DAB transmissions are vertically polarized, with an ERP one tenth (or less) of the power of the corresponding VHF-FM transmitter at the same site. For example at Holme Moss, high in the Pennine Hills, BBC Radio 2 FM is transmitted with 250 kW ERP mixed polarization on 89.3 MHz, while the BBC National Multiplex only needs 5 kW ERP on 225.648 MHz to carry 10+ stations.



Main station DAB transmit antenna.

Deficient audio broadcasting

This all sounds wonderful, but digital broadcasting of radio in the UK has not been completely successful. At times, available bandwidth for some services is reduced to make room for more programming on the multiplex. As a result, the digital compression has to be increased and audio quality for the national

services of BBC Radio 1, 2, 3 and 4 can actually be *worse* on DAB than on analog VHF-FM.

Depending on location, the 174-230 MHz signal strength of DAB inside a building can be very much less than for Band II, 88-108 MHz FM, so a portable DAB receiver running off its own antenna might have insufficient signal. The set would then need an *external* Band III antenna pointed at the local transmitter site — assuming the set has provision for an external antenna.

The additional power requirement of digital signal processing circuitry in a portable radio means that battery life is much shorter when receiving DAB compared with FM.

As a result of these 'deficiencies', home listening is still more popular on **FM** than on DAB. And households with broadband Internet service might prefer Internet radio as an alternative to DAB, with more stations available over the Internet than DAB could ever offer.

Penetration of DAB into the car radio market has also been limited. Only 38% of new cars in the UK have a DAB receiver fitted as standard. Coverage is still not as good as for VHF-FM, and listeners object to the sudden break up and signal loss with DAB, compared with the more gentle blend from stereo to mono, followed by the fade into noise with VHF-FM.

There are other networks beside the BBC available on DAB in the UK, though several commercial organizations have withdrawn from the service for economic reasons. Coverage is less for these other networks than for the BBC. For example, while the BBC national multiplex covers 94.4% of the population, commercial radio's national services only reach 89.5% and DAB coverage for local stations is down at 71.7% of UK households. Local stations complain about the cost of providing DAB to their own areas, and they were relieved when the government revised plans to turn off analog broadcasting in 2015.

In the UK, listening to DAB radio currently accounts for about 22% of all radio listening hours. The government is aiming for 50% before the analog stations are switched off.



Pure Evoke 1S portable DAB/VHF receiver with captive telescopic antenna.



Antiference DAB2304 external DAB antenna.

USA digital radio

This situation is in marked contrast to the USA where HD Radio™ has been in existence for over ten years, yet listenership is only estimated at 1-2% of the total audience. In September 2013, iBiquity claimed almost 15 million HD Radio receivers had been sold, with over 12 million factory-installed in new cars or auto aftermarket units. And yet, appreciation of HD-Radio by the general public seems to be non-existent.



*Insignia NS-HDRAD
“HD Radio Tabletop”*

Insignia NS-HDRAD “table radio” and the Insignia NS-HD01 portable player, with VHF HD-radio, but no AM. While these items are available at our local Best Buy store, they are tiny, and hidden away in the display of blister-packed extension speakers.

Critics suggest that HD Radio in the USA was a poorly-thought-out alternative to satellite radio after those services were first introduced by XM Radio and Sirius in 2001-2002. Since then, specialized listening has changed considerably, with portable music players such as the iPod and iPhone becoming more popular, and Internet radio stations providing far greater choice. Outside the immediate local coverage area of an HD Radio station, reception is complicated by weak transmissions on the digital sidebands, and by interference to those sidebands from stations on the adjacent channels. (Not to mention the reverse situation — interference from digital sidebands to authorized analog stations on the adjacent frequency.) In my judgment, AM HD Radio is dying on its feet and the future does not look too bright for HD Radio on VHF.

While HD Radios are showing up in some new vehicles nowadays, there are *almost no sets* available for home use. The HD Radio tuner from Sangean that I purchased is no longer manufactured. The only vendor of HD Radio for the home now seems to be Best Buy, which offers its own-brand



*Insignia NS-HD01 “HD
Radio portable player”*

- NM9J

Bring and buy

As mentioned by Greg, KB2CQE on page 1, our first PCARA meeting of the New Year, on Sunday January 5, is the annual Bring and Buy Auction. The auction is planned for this time of year because of the lack of local Hamfests during the winter months.

From my time in the Chicagoland area, I remember winter hamfests, where we trudged through the mid-west snow and waited expectantly in bitter cold for the doors to open. I see from the ARRL's Hamfest page, that Wheaton CRA club is still holding its mid-winter Hamfest in January 2014... but in our part of the world, the events calendar for ARRL's Eastern New York section is empty until the Orange County ARC Hamfest in April 2014.

So — in order to keep the good stuff rotating through our radio shacks, please pay a visit to your basement or attic and pick out a few treasures that you have not used in a while. Bring them along to the January meeting and see if someone else can provide a good home where the filaments will be warmed up and the panel lamps will glow brightly once again.



Moving merchandise at the 2013 Auction.

And if you are successful in selling one or more of your desirable items, a donation to the PCARA funds will be much appreciated by the treasury, to keep our club services running.

Cub Scout demo

Don't forget PCARA's demonstration of amateur radio to Cub Scout Pack 118 (<http://pack118fws.com>) at Furnace Woods Elementary School, 239 Watch Hill Road, Cortlandt Manor. Date is Friday Jan 24, 2014, starting at 7:00 p.m.

Vintage newsletters

The final batch of vintage *PCARA Update* newsletters has been uploaded to the Internet site. These scanned paper copies from PCARA's earlier times cover the months of July 2001 - November 2001. Read reports on our first Field Day, VE Test Session results and our joint effort with QSY Society in the September VHF/UHF contest. To reach the newsletters, navigate to <http://www.pcara.org> then click the “PCARA Update (newsletter)” link in the left margin.

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 Jan 5, 2014: PCARA January meeting with Annual Bring and Buy Auction, Hudson Valley Hospital Center, 3:00 p.m.

Fri Jan 24: PCARA demonstration to Cub Scout Pack 118, Furnace Woods Elementary School, 239 Watch Hill Rd., Cortlandt Manor. 7:00 p.m.

Hamfests

Sun Jan 5, 2014: NYC/LI Convention - Ham Radio University. Briarcliffe College, 1055 Stewart Ave, Bethpage, NY. 7:30 a.m.

VE Test Sessions

Jan 5: Yonkers ARC, Yonkers PD, Grassy Sprain Rd., Yonkers. 8:30 am Contact D Calabrese, 914 667-0587.

Jan 9: WECA, Westchester Co Fire Trg Cen, 4 Dana Rd., Valhalla, NY. 7:00 pm. S. Rothman, 914 831-3258.

Jan 17: Orange County ARC, Munger Cottage, 183 Main St., Cornwall NY. 6:00 pm. Thomas R. Ray, 845 391-3620.

Jan 27: Columbia Univ VE Team ARC, 531 Studebaker Bldg, 622 West 132nd Street, New York, NY. 6:30 pm. Alan Crosswell, 212 854-3754.



Peekskill / Cortlandt Amateur Radio Association Inc.
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