



PCARA Update



Volume 19, Issue 3 Peekskill/Cortlandt Amateur Radio Association Inc. March 2018

Sea swell

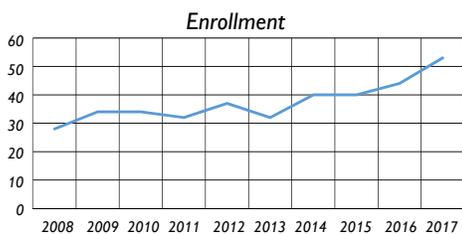
You'd better have your sea legs for the March 4, 2018 PCARA membership meeting at NewYork-Presbyterian/Hudson Valley Hospital. We will be setting sail with former Navy Radioman Stan Levandowski WB2LQF, for a presentation of **The Three Lives of the USS Slater**. The *USS Slater* DE-766 is the last World War II Destroyer Escort afloat in America, and is moored in the Port of Albany.



USS Slater.

On a personal note, I am most interested in the presentation because my father served in the U.S. Navy during World War II in the South Pacific as Quartermaster aboard the Destroyer Escort *USS Richard M. Rowell* DE-403. If you wish to learn more about the *USS Slater*, please visit: <https://www.ussslater.org/>. There is the possibility of a PCARA road trip to the *USS Slater* later this year. Stay tuned ye land lubbers!

An interesting statistic concerning our membership numbers was mentioned at the February 2018 meeting. It showed that our membership has risen 32.5% since 2014, **that's growth by almost a third!** That's an



PCARA membership 2008-2017.

amazing increase — let's hope the trend continues! Another subject raised at the meeting was that some very necessary upgrades need to be per-

formed on the 2 meter repeater. Among items to be considered were new repeater, amplifier, controller, antenna, and coaxial cable. It was suggested that a special initiative is needed and a fund be established to help defray the cost of these improvements. Ideas for

fundraising are welcome, details to follow.

Since Sunday April 1 is Easter, our April membership meeting will take place on Sunday **April 8**, 2018.

PCARA will be taking a table at the Orange County Amateur Radio Club Spring Hamfest on Sunday April 29, 2018 at the Town of Wallkill Community Center, 2 Wes Warren Drive, Middletown, NY. For more information please visit the OCARC website at:

<http://ocarcny.org/hamfest/>. Be sure to bring along any items you wish to sell.

The next PCARA Foxhunt is scheduled for Saturday May 12, 2018 during the CQ Worldwide Foxhunting Weekend. As usual, the hunt will begin at the Beach Shopping Center in Peekskill, NY at 3:00 p.m. with registration beginning at 2:30 p.m. Rules to be published in upcoming editions of the PCARA Update. Participation is open to **all**, PCARA members or not. Please consider coming along to join in the fun.

Our next regularly scheduled meeting will be on **Sunday March 4**, 3:00 p.m. at NewYork-Presbyterian/Hudson Valley Hospital in Cortlandt Manor, NY. I look forward to seeing each of you there.

- 73 de Greg, KB2CQE

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Net night

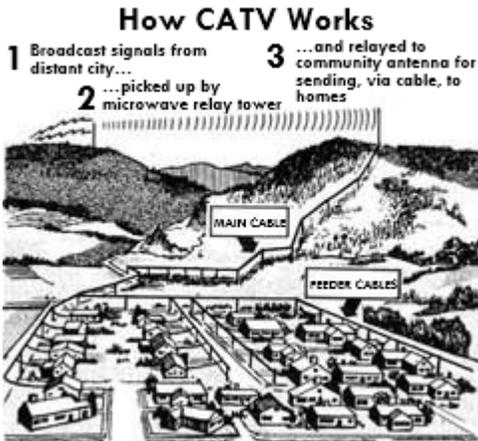
Peekskill/Cortlandt Amateur Radio Association holds a weekly net on the 146.67 MHz W2NYW repeater on Thursdays at 8:00 p.m.

Adventures in DXing

- N2KZ

Best Ever TV Antenna

The year was 1965. Television had been on the air about two decades and now it was in color! New UHF channels were coming on the air but most viewers couldn't tune them in. Consumer demand for content had never been greater. There was a solution: Many neighborhoods were being wired for something called *Community Antenna Television* or CATV. Imagine



With CATV, multiple TV stations are picked up at the community antenna site. Reception of a distant city might require a microwave link to the site.

having all 12 channels filled with endless shows! Could it be done? Engineers faced many challenges to make this dream come true. To construct a system that would be irresistible to potential customers, you first needed to find 12 channels to populate TV channels 2 through 13. Satellite TV was not yet practical without large antennas and expensive equipment. The only place to find other TV signals was over-the-air!

You would also need 12 TV tuners that would receive the signals and convert them from RF back to video and audio (called *demodulators* or *processors*) – and – rebroadcast the signals onto a channel of the cable company's choosing using a mini-transmitter called a *modulator*. All of the resulting single TV channels would come together using a device called a *combiner* and *voilà* – 12 channels, ready to deliver, all on one single coaxial cable!

For The Very Best In TV Reception And Enjoyment
CALL 433-3153
 TV & FM Stations On Cable TV

On Your TV Dial	You Receive	Network
2	WDCN-TV Nashville	ETV
3	WRUC-TV Chattanooga	NBC
4	WBM-TV Nashville	NBC
5	WLAC-TV Nashville	CBS
6	WMSL-TV (Ch. 23) Decatur, Ala.	NBC
7	WBNT-TV (Ch. 19) Huntsville, Ala.	CBS
8	WSDX-TV Nashville	ABC
9	FM Radio	
10	WDEF-TV (Ch. 5) Chattanooga	ABC
11	FM Radio	
12	WTVC-TV Chattanooga	CBS
13	WAFG-TV (Ch. 31) Huntsville, Ala.	ABC

On Your FM Radio Dial 90-91-92-93 Receiv. FM Radio St. cone

Receive FM Stereo On 91-92

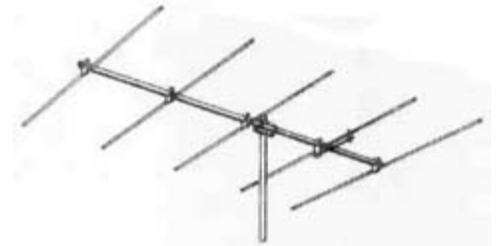
... Get Good Looks! Get On The Call
 CALL TODAY -- 433-3153
FAYETTEVILLE COMMUNITY TV
 138 West Market St. Fayetteville, Tenn.

12 channels of CATV in 1965.

The quest to find enough signals to fill twelve channels often was difficult and complex. Solid and reliable signal capture required a tall tower and highly directional and powerful antennas to bring in distant stations with the best reliability possible. Watching out-of-market TV stations, sometimes from over 100 miles away (and completely out of the grasp of local television viewers,) might seem miraculous to customers. Wouldn't it be great if we could see that?

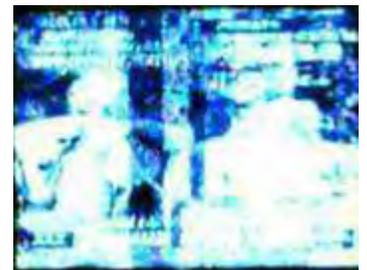
This was especially true for sports fans. The 'big game' or local wrestling or boxing match might be blacked out to nearby viewers watching on local channels, but if you could see a station who was broadcasting the big event from cities far away — you and your living room or bar or restaurant would be very popular indeed! This passion continues even to this day.

First attempts in snagging DX television for cable systems, with even the best commercially made and marketed antennas, were filled with pitfalls. Consumer antennas did not survive at great heights where wind and weather would give them a hardy beating. Also, the technical ability of basic antennas was lacking. Without a good narrow and tight 'nose' of a directional pattern — and with a poor front-to-back ratio — all sorts of signals might reach tower-top antenna installations (and probably many of those signals would be unwanted!)



Cushcraft Proline basic single-channel Yagi for CATV reception – from 1965.

Remember that good old analog TV did not have *capture effect* where the strongest signal would predominate above all others. Several signals arriving on the same channel would cause an unwatchable mix of pictures rolling on top of each other, creating some mess! Even worse, what if you wanted to bring in two stations that broadcast on the same channel? What to do?



An unwatchable mix of pictures.

Several manufacturers began designing and building hardy antennas to meet the demands of the fast-growing cable television industry. Although much sturdier than standard antennas, they all had flaws — usually in durability. Finally, in the summer of 1965, Scientific Atlanta unveiled the undeniable ultimate TV antenna line of all time (with an equally impressive name...) The **Quadrature Channeler***

*[Definition: **Quadrature** *adj.* Square, rectangular -*Ed.*]

This is no ordinary antenna! Scientific Atlanta's specification sheet for the **Quadrate Channeler** series is an enjoyable read:

Only the highest quality materials are used in the construction of a Scientific-Atlanta antenna. Elements are high-tensile, corrosion-resistant aluminum. Longitudinal members are tapered U-channels for maximum strength-to-weight ratio, with the dipole elements heliarc-welded to the U-channels. Vibration dampers in all elements significantly reduce fatigue.

The feed point of each antenna is completely sealed and weather-proofed to prevent changes in electrical characteristics due to environmental effects... Critical antenna-separation dimensions are carefully controlled to ensure that all electrical characteristics such as beamwidth, side-lobe suppression, etc., are optimized...

All hardware used in every Channeler antenna is high-strength cadmium-plated steel.

In short, the Quadrate Channeler Log-Periodic antenna represents the maximum value in a CATV antenna. Outstanding performance, minimum maintenance, and superior overall reliability make the Quadrate Channeler Log-Periodic the obvious choice for the majority of off-air antenna requirements. Amen!

The success of this product was predictable. A Quadrate Channeler met the needs of the CATV industry like no other. Perfectly designed with a tight directional nose and (unlike other antennas) a simply remarkable front-to-back ratio — it made miracles happen. For quite distant DX reception, if a single antenna was not sufficient, multiple Quadrate Channelers could be employed with as many as four antennas in a stack. Oh, the things you could now see!

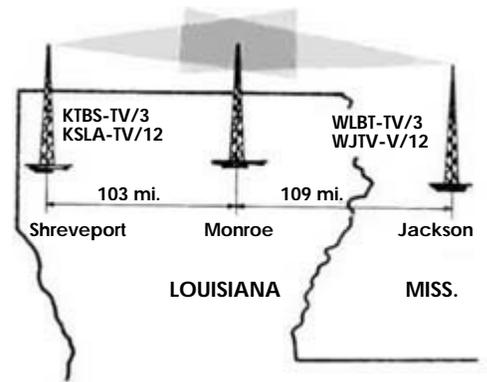
This customer's experiences became the theme of a double-page advertisement (from a letter to Scientific Atlanta dated December 1, 1965):

"Our tower in Monroe (Louisiana) is located 103 air miles from the Channel 3, Shreveport, Louisiana tower, and for all practical purposes at 180°, 109 air miles from the Channel 3, Jackson, Mississippi tower. Both stations

operate at maximum power. Because of higher terrain between our facility and the Shreveport tower, we obtained at the 500 foot level on our tower an approximate signal ratio of three to one more signal from the Jackson station. Obviously the conventional antenna arrays could not produce a usable signal with that ratio. However, the quadrate channeler array did just that because of its extremely high gain and front to back ratio."

"We are so pleased with the results that we are now installing four more quadrate channeler arrays in Monroe and have one on order for Parsons, Kansas" — signed, William L. Ross, Vice President of Engineering, Daniels Management Company.

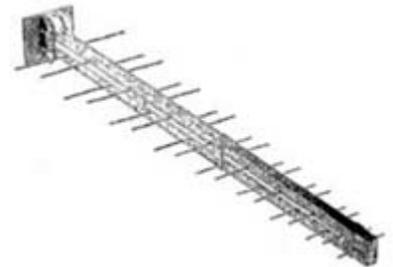
These antennas were designed for extreme conditions and decades-long use. The product line offered six different versions cut for specific frequency ranges: Channels 2 and 3, Channels 4 to 6, Channels 2 through 6 (all low VHF,) Channels 7 through 13 (high VHF,) Channels 14-83 (UHF) and FM 88 to 108 MHz. Rugged they were! The Channel 2 through 6 version was 12 feet long and weighed 76 pounds. A stack of four Channel 2 through 6 models and hardware weighed 852 pounds! The massive mounting brackets alone weigh a ton (figuratively!) Consider what you would require just to mount these beasts with confidence. Sturdy three or four inch steel or iron pipe comes to mind unless you have a commercial grade tower in your backyard.



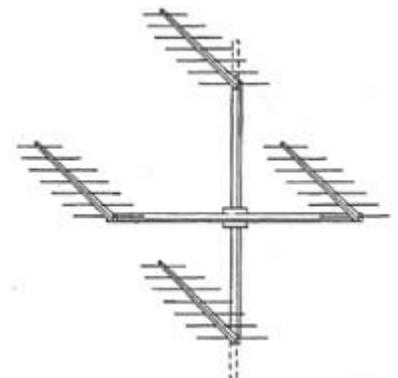
Map shows 1965 situation in Monroe, Louisiana for CATV reception of Channel 3 (60-66 MHz) and Channel 12 (204-210 MHz) from two different locations.



Scientific Atlanta **Quadrate Channeler** antenna array for CATV, side-mounted on a tower. Four log-periodic antennas are arranged in a diamond pattern.



Scientific Atlanta Single Antenna, Series QCA



Scientific Atlanta Series QCS four-antenna array.

Quadrade Channelers were heavy on the wallet, as well. A single low VHF model sold for \$2,300 and the high VHF model was \$1,500 — in 1965 dollars! Consider what four antennas and the rigging for a quad stack might have cost. It was a long term investment that seemingly never ends. I can tell you all about it!

Atop the building where I work is a small museum of Quadrade Channelers. Mounted up on a parapet used for the elevator system are a low-VHF, a high-VHF and a UHF model covering the TV broadcast world of the New York City and Long Island areas.



Quadrade Channeler Log-Periodic single antennas, series QCA at Karl's workplace. UHF (top) and low-VHF below.

(Look for their signature massive mounting brackets to determine the Quadrades' authenticity... We also have three UHF log periodic arrays that are more



Substantial mounting hardware for Quadrade Channeler single VHF antenna.

modern but less rugged higher up on our masts.) Firmly mounted and looking out over Long Island Sound (and its salt water,) they show very little decay except for a little rust here and there! Decades old, these antennas still feed our internal house RF system for office viewing and feed specialty receivers that convert these over-the-air broadcast signals to IP and ASI* format for distribution to several customers throughout North America.

*[IP = Internet Protocol. ASI or Asynchronous Serial Interface is a streaming data format often used to carry an MPEG Transport Stream over 75Ω coaxial cable, or other media such as fiber optic or wireless link. – Ed.]



View of low-VHF, high-VHF and UHF Quadrade Channeler Log Periodic antennas aimed at New York and Long Island from Karl's work location. [N2KZ pics.]

To aid my research, I actually have one UHF Quadrade Channeler that was removed from service to experiment with. I recently performed a field study to see just what signals could be resolved from the top of our building in Stamford, Connecticut. Simply stated, you would have thought that there was some sort of digital signal processing at work. The antenna showed precise and distinct peaks. Yes, the front-to-back ratio was pretty remarkable. Aim the antenna precisely 180° away from the target signal. Signals of 40 or 50 dB above noise (called



Scientific-Atlanta ad from 1965

‘the grass’ by its appearance on a spectrum analyzer oscilloscope) at peak would drop dramatically in exact reverse direction. It lives up to its advertised claims!

Unfortunately, Scientific-Atlanta was absorbed by computer industry giant Cisco in 2006 and, in turn, their over-the-air antenna production ceased. The Quadrade Challenger line has not been marketed in many a year. (The last Quadrade marketing flyer was issued in 1996, documenting 30+ years of production!) In the age we live in, we have many, many new options for transporting distant signals with much less effort, weight and cost! Commercial TV antennas are still manufactured, but none can match the rugged physicality and remarkable electrical design of these Goliaths from the age of over-the-air analog TV. Here is a 53 year old design to always admire. You'll never see the likes of these miracle arrays again!

Until next month, 73s es dit dit de N2KZ 'The Old Goat'



USS Boxer (LPH-4) - WB2LQF

[In view of the upcoming presentation by Stan WB2LQF on “The Three Lives of the USS Slater”, Lou KD2ITZ suggested publishing the following article from Stan’s web site, <http://www.wb2lqf.com/>. The article below is reproduced with Stan’s permission. – Ed.]

From my earliest childhood recollections I was always fascinated by aviation and radio. Both seemed magical to a youngster; both able to transport one to interesting destinations albeit in vastly different ways.

Aviation was clearly beyond my reach when I was 11 years old in 1960 but ham radio was a real possibility. I’ve told that story elsewhere* so



A younger Stan with his National NC-60 HF receiver, used for SW-listening and amateur activities. [WB2LQF pic.]

let’s pick up in 1966, the year I enlisted in the U.S. Navy. By this time, I had my General Class amateur radio license and I was copying Morse code at over 20 words per minute. I had taught myself enough electronics theory to successfully build several transmitters out of discarded television sets. I had a high school diploma and I had joined Army MARS (the Military Affiliate Radio System) over a year earlier. As MARS station AL2LQF I learned military radio procedure and traffic handling fundamentals. The Vietnam War was getting more intense. Since I wasn’t going to college because there was no money for that, my options were realistically limited — wait to get drafted or volunteer for military service. Aside from my Buddy Holly glasses I was in excellent health. I wasn’t getting a pass on that account! The pressure was on to make a decision.

The Navy appealed to me more than any other service. I thought their uniforms were really neat. Diane Renay had a hit record “Navy Blue” and the possibility of having a girl in every port was overwhelmingly approved by my teenage hormones. Besides, a foxhole that ‘moved’ was a harder target to hit!

My “Elmer” Grif Griffin W2LOR had encouraged me to pick the Navy because the training was top notch. He explained that the other services broke the job up into many different occupation or ‘job’ codes. In the Air Force, according to Grif, one person might

operate the radio while someone else operates the teletype. A third person only works the Morse circuit.

Yet other people work on antennas or handle the transmitters. Grif, a World War II Navy vet himself, said that Navy ships didn’t have enough room for that compartmentalization nonsense. A Navy radioman gets the best training, the most responsibility and the greatest respect.

That was enough for me. Down I went to my friendly neighborhood recruiter. There I was told that because I had an amateur radio license I would be guaranteed enlistment as a “radioman striker” (E3), sent to Navy radioman school, and then promoted to 3rd class Petty Officer upon assignment to the fleet without further testing or examination. Now he really had my attention so I signed on the dotted line.

After boot camp in Great Lakes I was sent to San Diego where I attended Basic Electricity and Electronics School (“BEEP” school), Class “A” Radioman School, Class “B” teletype school, and Class “C” High Speed Morse school. Going to school in San Diego was a real treat for me because I quickly discovered that I knew it all.

Don’t take me the wrong way. I’m not trying to be a wise guy. It’s just that the Navy schools were designed to take someone off the street who had no experience, start at square one, and turn out a sailor qualified to join a ship’s company and go to sea. I already had seven years’ experience as a licensed ham operator, a slew of successfully built projects to my credit, I could copy Morse code well over 20 words per minute, I already knew how to touch type, and my MARS experience in military traffic handling transferred almost directly to Navy procedure. I could “dip” the plate and “load” the antenna as fast as anybody else could on those Navy 1625s that were just like my 807 at home but with a different filament voltage. So I just kept my mouth shut, aced every quiz and test and became determined to graduate with honors. I



U.S. Navy 1625 was equivalent to an 807 transmitting tube — with 12.6 volt filament and 7-pin base.

* See: <http://www.arrl.org/with-a-little-help-from-my-friends> –Ed.

did. With no worries about studying complex electronics and learning how to use math formulas that I already knew, I was free to enjoy my time off exploring San Diego, La Jolla, Chula Vista, and I enjoyed spending time at Mission Bay. Life was **good!**



Stanley J. Levandowski, Jr.

Graduate

MIDDLETOWN

Radioman Seaman Stanley J. Levandowski, Jr., was the first student to be graduated from a Navy radio training program in San Diego, Calif. He is the son of Mr. and Mrs. Stanley Levandowski of Summitfield Apts., Middletown.

Levandowski was graduated from the new code specialist program ten days after beginning the six-week course. He has been transferred to duty in Norfolk, Va.

report to Commander, Marine Amphibious Squadron Four embarked in the *USS Boxer*. In the Navy, one lives “in” a ship and “on” a boat. My unit, whose acronym was COMPHIBRON FOUR* was commanded by Commodore Joseph B. Drachnik. We were the staff function that oversaw the operations of the squadron. Our commodore was actually a full Navy captain but addressed as “commodore” in keeping with tradition. Even though he might outrank the ship’s captain, it was the ship’s captain who was in command of *Boxer* at all times even though the “flag” officer was Commodore Drachnik.

Once aboard *Boxer* it became apparent that this was actually a city that never slept. *Boxer* was 888 feet long and it was about 60 feet to the waterline from the flight deck. She displaced about 27,000 tons. *Boxer* had started out as an Essex class carrier in 1944 and was subsequently converted to a CVA to a CV to a CVS before becoming the first experimental LPH. I joined her when she was LPH-4. My duty station was in Radio

A couple of paragraphs ago, I mentioned Class “C” High Speed Telegraph School. A cute story about this school follows: Because I already knew Morse at over 20 words per minute — and because the goal of this school was to train students to copy at 20 words per minute — check out this little article that Navy Public Relations sent to my hometown newspaper [alongside].

I could have graduated on the first day but the practical test was only given on Friday of the first full week of class. My family and friends back home thought I was a freakin’ genius!

Upon graduation I received orders to

Central up in the island. [CVA = Attack Aircraft Carrier; CV = Generic aircraft carrier; CVS = Anti-submarine warfare carrier; LPH = Landing Platform Helicopter, –Ed. and Wikipedia.]



Essex-class carrier USS Boxer.

One surprise was that although I was supposed to have been promoted to 3rd Class Petty Officer upon graduation and assignment to the fleet, one little detail had been withheld — the command I was being assigned to needed to have an actual ‘opening’ for an E4. It took a couple months but eventually I received my promotion when someone else was transferred.

As a Navy radioman I had a darn good deal. My job was relatively safe and routine. It was always warm and cozy up in Radio Central. Cameras were, of course, strictly forbidden in any of the communication spaces and a court-martial offense. That’s why I have no pictures of the gear and my old Navy buddies. Radio Central itself was

a rather small space with a cipher-locked door. Racks of Collins R-390 receivers as well as the (then) newer R1051s were always up and running. All transmitters were located in other spaces in the ship below decks. The transmitters were keyed remotely. In fact my General Quarters battle station was in one of these transmitter rooms.



Collins R-390 HF receiver.



General Dynamics R-1051 synthesized HF receiver.

*COMPHIBRON FOUR = **Com**mander, **Amphibious Squadron** Four. –Ed. and public.navy.mil.

Teletype was the most frequently used mode. Our circuits were not clear channel but rather all encrypted using the old ORESTES technology. I seem to recall our equipment included KW7s and KLB-47s. Sometimes, I guess just to keep us sharp, we'd get an encrypted Morse communication — or send one out — which required manual encryption using something called "Penelope". I suppose back then it was all super-secret



KLB-47 cipher machine.

highly-complex-incredibly-fantastic-stuff but today, the average secure wireless network in a home makes it look like amateur hour. Whenever we would be engaged in any actual operations we'd make greater use of phone and Morse. Our routines included sending out "movement reports" at regular intervals giving the ship's coordinates and various states such as fuel and stores, etc. One nice thing about Radio Central is that those of us who worked there always knew what was going on because everything coming in or going out did so through us. Of course we all had appropriate security clearances and we knew it wasn't a very good idea at all to shoot off our mouths!

Several times each day we would receive the current reports of world news via teletype. Frequently, it was my job to put them into a courier's pouch, put on my white guard belt, hat and spats and deliver them to the Commodore.



Stan, WB2LQF on the aft deck of USS Boxer. Stan's sleeve has E3 Seaman's insignia with radioman's "sparks" above it.

Walking into Commodore Drachnik's quarters was like walking into another world. It looked like the inside of a world class yacht with wood all over, music playing softly, and absolutely no sense of being in a Navy warship. The Old Man did OK for himself!

Chow time was always looked forward to. All the things I heard about Navy chow being the best of all services seemed to be true. There was always plenty of it too! Take all you want; eat all you take! When leaving port, there was always whole milk... for a while. Then it was powdered milk... for a while longer. Finally if replenishment was delayed we had the famous red 'bug juice' also known as Kool-Aid. At sea, our drinking water was from large desalinators. Sometimes they worked better than other times! Showers were short — very short. Wet down, soap up, rinse off, and get the hell out. It's been a long time but I seem to recall there was no 'constant on' position. It was more like the handles in the Home Depot Men's Room — hit it once and it stays on for a few seconds only. Now here's an indelicate morsel — in a Navy bathroom which is called a 'head' there are no doors. Ships roll and doors slam which could hurt someone. At least that's what they told us. Since there were no doors, the Navy apparently saw no need for walls to hold the doors either. So if you really feel like it, try visualizing a row of toilets early in the morning with no doors on them and no walls between them.

In a Navy warship there are different 'zones'. The highest ranking officers like the captain and the executive officer have their private staterooms. The rest of the officers live usually two to a room in "Officers' Country". The Chief Petty Officers have their own space where their accommodations are similar but not quite as nice as the officers. Pecking order is important in the military. The rest of us, from E6 down to E1 lived in "living spaces" that could be just about anywhere in the ship. When a ship rolls, the worst place to be is up forward because the movement is greatest. A carrier's bow doesn't ride out as much as a destroyer but it's still a roller coaster up there in rough weather. Amidships is where the center of gravity is and that's more comfortable. Toward the fantail tends to be noisier. In fact there is no such thing as 'silence' in a Navy ship but one gets accustomed to it over time.

Time actually passes very quickly at sea. I seem to recall that we stood 12 hour watches while underway. If you wanted to grab eight hours shuteye, that only left four hours to fill with eating, personal activities, and maybe a game of cards, a movie, or some reading. We had a ship's store where there were all sorts of things one could purchase. I remember buying a very nice Seiko watch with 24 time zones in different colors. Wish I still had it. There was also a store that sold snacks like canned Vienna sausages. Such snacks were referred to as "gedunks".

Flight operations were always exciting if for no other reason than all the noise and activities going on simultaneously. All the ship's antennae had to be lowered to horizontal positions off the flight deck for obvious reasons. No one was permitted on the flight

deck during operations except for those who had a specific job. Since *Boxer* had by now been converted to an LPH we only had rotary winged aircraft aboard — a couple Hueys and everything else was a CH-47 Chinook twin rotor. *Boxer* made two trips to Vietnam in 1965 and 1966 primarily to deliver both rotary and fixed wing aircraft and troops.



Twin rotor CH-47 Chinook helicopters, with fire hose visible in the foreground. [WB2LQF pics.]

I cannot recall any ‘bad times’ in *Boxer*. Things were always quite predictable and routine for the radiomen. Being a radioman was actually more of an administrative job. It turned out to be a ‘good’ job but not quite the stimulating, broadening, technical experience quoted by the recruiter! Consider this: all the equipment was top shelf and manufactured and installed by the likes of Collins Radio Corporation. Everything was overbuilt and militarized to withstand not only the harsh saltwater environment and risk of battle damage in action, but also designed to safely absorb stupid and careless mistakes. Like laying a heavy book on a Morse key and walking away from it for an hour. When something broke, we just brought up a spare unit and tagged the malfunctioning one. When we got to port, some manufacturing reps would show up to do a swap. Truly, it’s a lot more difficult and technically challenging to operate a ham radio station than to have been a Navy radioman back then. The real focus of the job was communication, not technical. Getting messages passed with absolute accuracy and speed was the ultimate goal. This is probably as it should have been too! It’s just that as a youngster, I was promised a technical job and lured into an administrative job. All that technical training I received? Never used it aboard ship...

Ah well, all’s well that ends well they say. Coming out of the Navy with their technical schools under my belt impressed the New York State Police recruiter who hired me as Dispatcher F7 at the newly built Troop F Headquarters in Middletown, NY. And the fact that the NY State Police thought I was “good enough” to work

for them most likely led to the IBM recruiter “stealing me” out from under them a few months later. So in many ways I owe much of the success I’ve enjoyed in life to the doors initially opened by my military service.

— . . . —

Time has managed to erase a lot of the detailed memories I once had of life in *Boxer*. I adopted *Boxer* as ‘my’ ship because I spent the most time on her and joined the *USS Boxer* Veterans Association a few years ago. Because I was a member of COMPHIBRON FOUR I was never ‘ship’s company’ on any ship. Being ‘ship’s company’ means one was actually assigned to the ship’s crew. We were always ‘guests’ for specific operations over specific periods of time.



Life at sea had its serene moments. Uniform of the day was dungarees and a chambray shirt — unless it was too hot.

I remember a few of the people I served with but never kept in touch. I remember we had two radio officers, both Ensigns. One was named Hardy and the other was named Stewart. Mr. Hardy was an LDO. This stood for Limited Duty Officer and it mean he had worked his way up from the enlisted ranks. LDOs were different from line officers in that they could never command a ship or an operation. They were technical specialists only. He was an OK guy. Mr. Stewart was a “proper officer” with a college education and everything. I remember him talking about wanting to volunteer for PBR duty. *Boxer* was “too safe” for him. PBR stands for Patrol Boat, River and they were otherwise known as “Swift Boats”. They patrolled the Mekong Delta. Mr. Stewart got his transfer and was killed in action not long after he got there. I remember RM2 Howard, RM1 Lines, and Radioman Chief Vernon D. Fair. I can remember more faces but the names are gone now. There was the fat guy from NYC who talked with a lisp, the yeoman from Baltimore who played Joan Baez records and thought Jane Fonda was “boss”; there was “Andy” the guy from Alabama with the wise-guy attitude, and Harry, the Illinois State Trooper who thought being a cop automatically excluded him from

eventually going on active duty. He says that's what they told him when he joined the Naval Reserve two years earlier to avoid getting drafted! Quite a melting pot but that was a benefit of military service — it transported the serviceman to a place where you had to learn to get along with everyone.



Island of the USS Boxer. The island contains the carrier's bridge and aircraft control center. [WB2LQF pic.]

Being in COMPHIBRON FOUR meant moving around a great deal and spending varying amounts of time on different ships as required by the mission. In addition to *BOXER*, I also spent time on the *USS Raleigh*, *USS La Salle*, *USS Graham County*. I spent a short time on the *USS Guadalcanal*. I even managed a very short stay on a Sumner Class destroyer, the *USS Compton*, but not when attached to COMPHIBRON FOUR. Thanks to invites from Navy buddies, I was also able to visit the carriers *USS Wasp*, *USS John F. Kennedy*, *USS Oriskany*, and the Fletcher Class destroyer *USS Gyatt*.

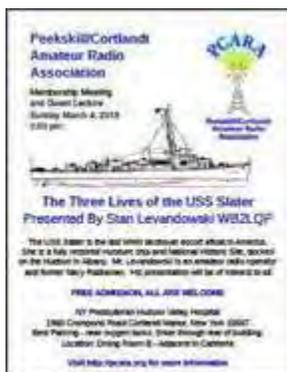
But my time in *Boxer* will always be special.

- Stan, WB2LQF

More from Stan

You can read more articles from Stan, WB2LQF at his personal web site, <http://www.wb2lqf.com/>.

Stan will be presenting at the March meeting of the Peekskill/Cortlandt Amateur Radio Association on the subject: “**The Three Lives of the USS Slater**”. The meeting begins at 3:00 p.m. on Sunday March 4 at the usual location, Dining Room B of NewYork-Presbyterian/Hudson Valley Hospital.



Two Day Tech Class

The Dutchess County Department of Emergency Response, with assistance from The Mt. Beacon Amateur Radio Club and The QSY Society, is offering a free Two-Day Amateur Radio Licensing Class to be held on Saturday & Sunday, April 21 – 22, 2018, 8:00 a.m. to 5:00 p.m. with FCC License Exam Session held starting Sunday at 1:00 p.m.

Why Amateur Radio?

- To assist your community in time of need when all else fails
- To promote good will around the world
- To have fun communicating with fellow hams!

Location

Dutchess County Office of Emergency Management, 392 Creek Road (near Dutchess Community College), Poughkeepsie, NY 12601. (GPS: 41.7465676,-73.8983243)

Class is open to all without age limit and is for the Technician Class License.

Pre-Registration is required!

The text is “ARRL Ham Radio License Manual 3rd Edition” (ISBN 9781625950130), please obtain before the first class – order from Barnes & Noble or Amazon.

For pre-registration and other details call: William Baker (KC2LIX ‘at’ arrl.net), 845-235-2048 or visit the ARRL Class Web Page.

FCC License Exams on Sunday April 22 at 1:00 p.m. open to all hams.

Cortlandt Living

Cortlandt Living is a free publication distributed by direct mail to addresses in and around the Town of Cortlandt. The mission of *Cortlandt Living* magazine is to bring people together in a positive, relevant and fun way, with focus on family, community, the arts, local businesses, serving others and charitable acts.

Greg KB2CQE and Lou KD2ITZ have been working with publisher Sonia Garber on a feature about Peekskill/Cortlandt Amateur Radio Association for the magazine’s ‘Non-Profit Spotlight’. Lou recently thanked everyone who helped prepare the feature, saying he has been told to expect an article covering PCARA in the upcoming **April** issue.



Tuning high to low

Early days at G3VNQ

As recorded in the pages of *PCARA Update* for September 2016, your editor was first licensed in Great Britain in August 1966 with the call sign **G3VNQ**. At the time I was living at the family home in Southport — a seaside town in northwest England, 16 miles north of Liverpool. My first transmitter was a home-built affair for 160 meters, following a design published by the Radio Society of Great Britain (RSGB).

Some information for this article comes from the early pages of my radio **log book**. At the time it was a UK licensing requirement that all contacts and test transmissions had to be recorded in a written log. The local Post Office Radio Inspector would ask to see the



Page from the G3VNQ log book for July 1967 includes both AM and SSB contacts.

log during station inspections. It had to be a permanent record in ink including all relevant information. The rules for log keeping are more relaxed nowadays, but I would recommend anybody

taking their first steps in radio to keep a paper or electronic log of early contacts— with adequate back-up arrangements for any electronic version.

That first log book shows a good deal of activity. In my first months on-air in 1966 most of the contacts were on 160 meter AM with some CW. Southport was in a good radio location on the edge of the low-lying Lancashire Plain, with my home only two miles from the sea-front. Local activity came from radio amateurs in Southport, from nearby Liverpool, from Preston and from amateurs just across the Ribble Estuary in the seaside towns of Lytham St. Annes and Blackpool.

Intermittents

The log shows my operation from the Southport shack was being regularly interrupted by travel to college, 170 miles to the southeast. As recalled in the September 2016 *PCARA Update*, the last leg of the rail journey from Southport went *via* Bletchley (now famous for WWII code-cracking) through Bedford to Cambridge over a section of track that is now closed.

In April 1967 I took part in the University Wireless Society's GD6UW DXpedition to the Isle of Man, situated in the middle of the Irish Sea. This opened my

eyes to more aspects of amateur radio including single sideband and VHF/UHF operation. On the HF bands, we had a Sommerkamp FT-100 transceiver on loan from J.B. Lowe as well as a Swan mobile transceiver.



(Sommerkamp was an alternative brand name for Yaesu.) For 160 meters there was an Eddystone EA12 receiver and Codar A.T.5 transmitter. I paid

Eddystone EA 12 Amateur communication receiver



As amateur bands allocation continues to be squeezed, the EA 12 is a very useful receiver for the 160m band. It is a 160m band receiver with a 100% duty cycle. It is a 160m band receiver with a 100% duty cycle. It is a 160m band receiver with a 100% duty cycle.

a visit to the DXpedition's VHF site, located at the Air Ministry/ Board of Trade Air Traffic Control station on the summit of Snaefell, 2034 feet

Simple sideband

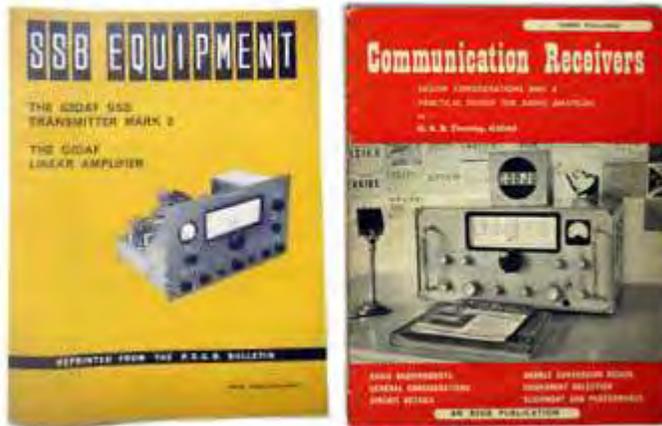
Back home during the “long vac” summer of 1967, I acquired my first single sideband (SSB) transmitter from **Frank Beech, G3PVL**. Frank was a fellow-member of Ainsdale Radio Club and a former marine radio officer. In the days before satellite communication, a



Frank G3PVL (right) with Norman G2CUZ, operating in Ainsdale Radio Club's RSGB Field Day entry, June 1966. Frank now lives in Tasmania with call sign VK7BC.

good number of radio amateurs in the area around Liverpool were employed in marine radio. Frank had constructed a **G2DAF SSB transmitter Mark II**, which he no longer needed after upgrading to a more modern transceiver.

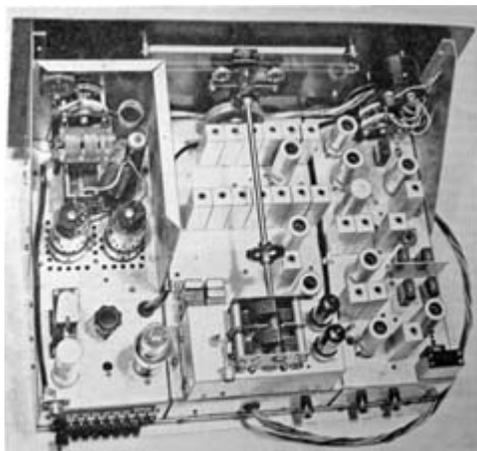
Dick Thornley, G2DAF produced a series of designs for HF communications receivers, SSB transmitters and linear amplifiers during the 1960s. They were published in the monthly journal *RSGB Bulletin*, in RSGB booklets and in the pages of the RSGB's *Radio Communication Handbook*.



The Radio Society of Great Britain published booklets describing SSB transmitter, communication receiver and linear amplifier designs by Dick Thornley, G2DAF.

Home construction of one of these vacuum-tube designs was a major undertaking for radio amateurs of the time. The project might take months or even years to complete — though assistance was available in the shape of pre-drilled metalwork from E.J. Philpott's Metalworks, pre-wound coil packs from Electroniques and quartz crystals from QCC Works. The resulting radios were sturdy, reliable designs housed in large metal cabinets for protection against TV interference (TVI). In the case of

G3PVL's SSB transmitter there was also an external power supply that was so large and heavy that it had to sit on the floor. The transmitter output stage employed a pair of 6146B



View inside G2DAF SSB transmitter Mk II.

beam power tubes fed with roughly 800 volts HT — power output was well in excess of 100 watts PEP. Sideband generation employed a 455 kHz Kokusai mechanical filter.

G3PVL had been mainly interested in DXing on the higher frequencies so he only equipped his G2DAF Mk II transmitter for the 20, 15 and 10 meter bands. I made my first contact on 20 meters using the G2DAF Mk II transmitter in June 1967 with Arne, SM7BVR. Those first few days on HF SSB were lots of fun — just about every contact was with a new country! If you look at a map of Western Europe, you will see more than twenty separate countries within 1000 miles of northwest England.

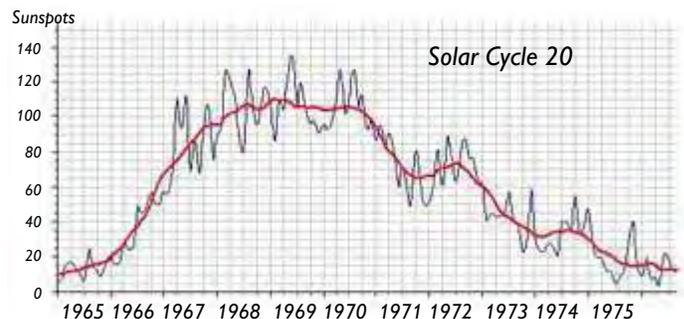


Compare this with the area within 1000 miles of Peekskill where the only countries

1967 map of Western Europe shows over 20 different countries within 1000 miles of Southport (red circle).

to work are USA, Canada, Bermuda, Bahamas and French possession St. Pierre and Miquelon.

Sprinkled among the European locals in my log — such as 4U1ITU in Geneva — I also worked some DX on 14 MHz. For example there was 5A4TH in Tripoli, 9V1NV in Singapore, PY2DSQ in Sao Paolo, 3C2AJ in Montreal and VK3OR near Melbourne. That summer of 1967 was on the rising edge of Sunspot Cycle 20 — not the most active cycle, but with a lot more sunspots than we are experiencing in early 2018.



I only had simple antennas for 20 meters — a wire dipole and later a Hy-Gain 14AVQ trap vertical for 40, 20, 15 and 10 meters. I see a lot of TVI tests recorded in the log — this was a time when UK television was using both 405-line VHF and 625-line UHF, with most TV sets still based on vacuum tube technology.

The 20 meter band was open around the clock — I remember late night sessions with my near neighbor Brian, G3SZV who had an 813 linear amplifier feeding

a ZL-Special antenna. I could ride along on Brian's coat-tails, working DX into the small hours.

In July 1967 I upgraded the G2DAF Mark II transmitter to cover six bands, using additional coils from Electroniques and quartz crystals from various sources. Forty meters and eighty meters worked satisfactorily, but the situation on 160 meters was unusual because Frank, G3PVL had used a small variable capacitor for tuning the driver stage output coil to resonance. I found the capacitance swing available through the front panel control insufficient to peak this coil all the way from 1.8 to 2.0 MHz — so I left a hexagonal trimming tool sticking out of the 160 meter driver coil, allowing a quick under-the-lid adjustment whenever moving from high to low, around the 160 meter band.

My log shows plenty of subsequent 160 meter SSB contacts using the 120 foot best-bent-long-wire antenna, brought to resonance with a roller-coaster inductor. The 1967 UK legal limit of 26 2/3 watts PEP output for single sideband on 160 meters went a lot further than 10 watts input on AM. At the time, 1.8 MHz still had lots of AM activity, so I perfected the technique of running up the carrier on the G2DAF transmitter just enough to make the lower-sideband signal audible in an AM receiver. Single sideband with carrier (A3A/A3H) allowed plenty of mixed-mode contacts.

Another change at the G3VNQ shack for SSB operation was an improvement to the receiver. I had begun with an ex-Royal Air Force R1155L receiver, adequate



Marconi B28 communications receiver, Admiralty version of the CR100.

for AM and CW on 160 meters, but with insufficient band-spread for the higher frequencies. I heard about an ex-Royal Navy Marconi B28 receiver stored in a listener's attic and brought it home. The steel cabinet was a

heavy lift down from the attic, but combined with a second-hand KW/Geloso converter, the B28 provided adequate performance on the HF bands, especially after I added a product detector and S-meter.

Use of a separate transmitter and receiver requires a skill largely forgotten today — the ability to *net*. Netting means setting the transmitter frequency to the exact frequency of an incoming signal, especially important for SSB operation where mis-tuning of a received signal by less than 100 Hz will make the

demodulated audio sound unnatural.

The G2DAF Mk II transmitter and its large power supply seldom left my shack because of size and weight — but it did visit the Isle of Man for a subsequent CUWS DXpedition in March 1969. Details at this location: <http://home.lanline.com/~pritch/docs/swmmay69.pdf>

Meter waves

After, encountering VHF enthusiasts at college — including Peter Cripps, G3SKT — and seeing 2 meters in action from the summit of Snaefell, I was inspired to try out VHF. I started with a government-surplus R220 receiver, intended for military use on 70.0 – 95.0 MHz AM. This frequency range included the UK 4 meter band which covered 70.1–70.7 MHz at the time.

(For more information on the UK 4 meter amateur band, see *PCARA Update* for September 2013 “Anyone for 4 Metres?”)

I built a simple crystal-controlled transmitter for 4 meters, with a QQV03-10 (6360) dual tetrode in the RF output stage running 15 watts input. Power supply and modulator were on a separate chassis. At the time, VHF transmitters were mostly crystal controlled. I had a small collection of World War II surplus FT-243 crystals, purchased from

Henry's Radio in London. Henry's was located in Edgware Road — along with Tottenham Court Road

and Lisle Street, this was London's equivalent to 'Radio Row'. Two of the available FT-243 crystal frequencies were 7806 kHz and 7800 kHz. When multiplied by 9



FT-243 crystals employed in 70 MHz transmitters.



Marconi R220 receiver was part of a 1950s voice system for controlling Anti-Aircraft gun batteries.

TRANSISTORS • VALVES QUARTZ CRYSTALS DIODES-RECTIFIERS S.C.R.'s F.E.T.'s TUNNEL DIODES A New 24 Page Illustrated Booklet is now available Listing 1800 Types Available from Stock. Price 1/- post paid Have you ordered your copy yet?	1967 CATALOGUE Completely New Edition 200 pages Fully Illustrated Over 6000 Items Complete with 10/- discount vouchers worth 10/- when used as directed Price 8/6 post paid This catalogue is a must for all enthusiasts
HENRY'S RADIO Ltd. 01-723-1008/9 303 EDGWARE ROAD, LONDON, W.2 Mon.-Sat. 9-6 p.m. Thurs. 9-1 p.m.	

Henry's Radio advertisement from June 1967 RSGB Bulletin.

MHz. FT-243 crystals could be disassembled with a screwdriver, allowing the frequency of the quartz plate to be adjusted. A little graphite from a lead pencil would lower the frequency, while etching in a bath of ammonium bifluoride solution would raise the frequency. (Warning – ammonium bifluoride and hydrofluoric acid are corrosive and highly toxic. But this was the 1960s, with not so many health and safety concerns.) A safer way to raise the frequency of a quartz plate was by rubbing the surface with a watery paste of Ajax or Vim scouring powder.



The R220 receiver was fine for monitoring the calling frequency, but there were other frequencies that needed to be tuned in. I built transistorized converters for the various VHF bands and had another WWII



USAAF BC-348 HF communications receiver covered 1.5 - 18 MHz

surplus receiver – in this case an ex-U.S. Army Air Force BC-348 – to tune the converters' output in the 4.0 – 6.0 MHz range.

When using a VHF transmitter that was crystal-control

led, the technique was to call CQ on AM or CW then announce that you were “tuning high to low” or “tuning low to high”. If you were lucky, you might come across another station replying to your CQ. Replies were fairly long to allow time to tune across the band. This slowed down the QSO rate during contests — and crystals near the band edge were in high demand for this type of operation.

For the 144 MHz and 430 MHz bands, RSGB published frequency plans showing where crystal controlled stations should operate for different zones in the United Kingdom.

A high point of my early 4 meter operation occurred on June 14, 1968 when I successfully worked ZB2VHF (Gibraltar) on 70.26 MHz

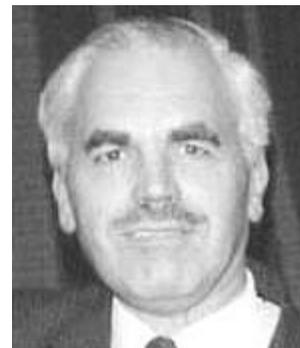


RSGB 2 meter Band Plan from the 1967 Call Book. Southport was in Zone 8.

AM. The brief opening on 70 MHz between G and ZB2 was a first, with several G-stations contacting ‘The Rock’. Distance was around 1300 miles, providing an excellent example of Sporadic-E propagation.

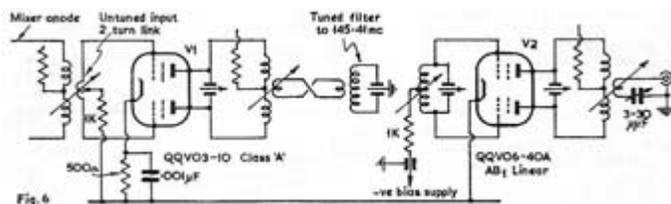
VHF SSB

In the late 1960s, interest was growing in the use of single sideband in place of AM for DX working on the VHF and UHF bands. I was inspired by a talk given by Tom Douglas, G3BA on VHF operation. Tom was the Engineer in Charge at the BBC TV Transmitter at Sutton Coldfield, and an exponent of high power from high sites to reach out as far as possible.



Tom Douglas, G3BA promoted single sideband on VHF in the 1960's.

I constructed an SSB transverter for use with the G2DAF Mk II Transmitter, following a design by G3BA. Low level drive from the SSB transmitter on 28 to 29 MHz was mixed with a 116 MHz carrier derived from a crystal oscillator, using a QQV03/10 balanced mixer. This was followed by a QQV03/10 driver into the 144 MHz power amplifier stage using a QQV06/40A double tetrode (5894).



Buffer amplifier and power amplifier stages of a 145 MHz transverter, described by G3BA, Short Wave Mag, Jan 1968.

The transverter ran off the same beefy HT supply as the G2DAF transmitter and produced around 100 watts PEP output. The first 2 meter SSB contact in my log took place in March 1968.

Apart from the 9dB S/N improvement of single sideband over equal-PEP AM, 144 MHz SSB had the advantage of being frequency agile. In a 2-way SSB contact, one station could call CQ, the other station would answer on-frequency and the pair could complete their QSO during half the time that two crystal-controlled AM stations were still “carefully tuning high to low”. If an SSB station worked a crystal-controlled station, the SSB operator could reply on-frequency or adjust his VFO to the very edge of the band, where the other station was tuning high to low.

Over the next few years, crystal-controlled AM began to fade away as VHF DX enthusiasts continued to adopt single sideband. In late 1968 I built another transverter, this time for 70 MHz. VHF SSB equipment

was mostly home-brew during the 1960's but a decade or so later, after I acquired a Yaesu FT-902DM HF transceiver, I was able to complement it with a Yaesu FTV-901 transverter, containing individual modules for 70 MHz, 144 MHz and 432 MHz. I also acquired a 6 meter module for the day when a 50 MHz amateur band would be made available in the UK... but that's another story.

The demise of amplitude modulation on VHF/UHF more or less coincided with the arrival of FM repeaters in the mid 1970s, along with FM mobiles and portables imported from Japan.



The Icom IC-22A 2 meter FM mobile transceiver was first imported into the UK by Thanet Electronics in 1976.

Where are we going?

It's fun to look back at the world of amateur radio, fifty years ago. All that bulky, tube-based equipment could be replaced by one compact multimode transceiver nowadays. And how did I find time to operate, modify and build so much equipment? Simple vacuum tube designs such as those by G2DAF and G3BA could be home-brewed and serviced by radio amateurs with limited test equipment. The result was rugged radios with good performance that were well understood by their owners. My own transverters survived several trips to hilltop sites for VHF contests. There was no need for a microscope to examine surface mount components, and microprocessors were a decade away.

On the debit side, vacuum tube equipment was not 100% reliable. Vacuum tubes would lose emission or fail completely then require replacement. High temperatures could cause nearby components to deteriorate and high voltages might track across an insulating surface. Those high voltages could be hazardous if touched accidentally. Use of a separate transmitter and receiver took up a lot of space on the operating bench. Mobile operation with vacuum tubes was possible using a vibrator or transistorized power supply, but equipment was bulky and it would soon exhaust a vehicle's 12 volt battery.

Solid-state equipment was making an appearance when I started out in amateur radio... VHF and UHF converters with low-noise FET and MOSFET front ends were becoming popular. But 100 watt HF transceivers that were all solid-state were roughly a decade away.

Separate transmitters and receivers and home construction are still popular nowadays — though the radio amateurs who continue to enjoy this aspect of the hobby are mostly QRP enthusiasts.

- NM9J

NY QSO Party results

The New York State QSO Party took place on Saturday October 21, 2017. Peekskill/Cortlandt Amateur Radio Association's entry was hosted by Joe, WA2MCR, using his Icom IC-7410 transceiver with wire antennas. Operators included Joe himself, Charles N2SO, Lou KD2ITZ and NM9J. For details of the club entry, see the November 2017 issue of *PCARA Update*.



Charles N2SO and Joe WA2MCR were two of the operators in PCARA's entry for 2017 New York QSO Party.

Operating with club call **W2NYW** from Westchester County, PCARA claimed the following total:

Year	QSOs	Points	Multiplier	Claimed total
2017	432	612	87	53,244

A list of NYQP award winners for 2017 was published in mid-February on the web site <http://nyqp.org/wordpress/>. In PCARA's category, first place award winner **W2SO** scored more than twice PCARA's claimed total:

New York Multi-One Low Power: **W2SO**, 126,700 points

Unfortunately, complete results were not available at *PCARA Update* press time, so further comparisons will have to wait.

Congratulations to W2SO and the Lancaster Amateur Radio Club, <http://w2so.org/>, located near Buffalo, NY. Lancaster ARC will be receiving the 2017 plaque for 'New York Multi-One Low Power', sponsored by PCARA.

As a reminder, scoring in the NY QSO Party is calculated by multiplying QSO Points (with 2 points per CW contact) by the number of multipliers — consisting of NY Counties worked (62 max) plus U.S. States (50 max) and Canadian Provinces (9 max).

The second plaque sponsored by PCARA is for "Non-New York SSB Low Power". Winner of this award for 2017 was KE3ZT with 3,120 points. Stephen KE3ZT is located in Bedford, PA.

Foxhunt feature

PCARA had plenty of Foxhunt activity during 2017. The FYCAT tape-measure Yagi workshop took place in April. Our June foxhunt featured Mike N2EAB as fox. This was followed in September by PCARA's "Foxhunt University" conducted by Karl N2KZ in the grounds of Walter Panas High School, with an encore presentation to Candlewood Amateur Radio Association (CARA). The September foxhunt was won by CARA guest hunters Jay N1NRP and Marlon KC1EHW, with Lovji N2CKD close behind in second place.

PCARA's Spring Foxhunt usually coincides with *CQ Magazine's* Worldwide Foxhunting Weekend. Results from 2017 were reported by Joe Moell, K0OV in his "Homing-In" column for the February 2018 issue of *CQ*. Extracts also appear on K0OV's web site, <http://www.homingin.com/latest.html>. Thanks to Henry, KB2VJP, PCARA activities were included — along with quotes from the *PCARA Update*. Here is a brief excerpt:

Some clubs have just one foxhunt annually, on or close to Foxhunting Weekend. For the Peekskill-Cortlandt Amateur Radio Association (PCARA) in New York, May 14 brought continuous heavy rain, so the yearly hunt was postponed until June 3. Mike Ardivino, N2EAB, was the fox. In accordance with the club's rules, he started the hunt with a 5-minute transmission, a 5-minute silent period, then nine 3-minute-on-7-minute-off cycles. After 90 minutes, transmissions ended and the hunt was over, ready or not, with Mike announcing his location. First to find and declared as winner this time was Malcolm Pritchard, NM9J.

PCARA rules require that the fox's antenna be horizontally polarized. This makes it easier for hunters with RDF Yagis, because mounting them becomes easier. However, Doppler RDF sets are likely to give misleading readings on horizontally-polarized signals. They will respond instead to vertically-polarized reflections from buildings and terrain features.

As NM9J reported in *The PCARA Update*, "following the foxhunt, several members expressed a desire to improve their skills and to have more than one foxhunt per year. On September 16, they gathered at Walter Panas High School for Foxhunt University, organized by Karl Zuk, N2KZ. Karl distilled years of RDF experience into his illustrated talk."

NM9J brought RadioShack scanners to act as flea power signal sources. With the scanners set to receive on 157.415 MHz and with a first intermediate frequency of 10.85 MHz, their local oscillators radiated on the hunt frequency of 146.565 MHz.

"These scanner-transmitters were used by Karl to demonstrate polar diagrams of different directional anten-

nas, including null points, harmonic operation, and the effect of attenuators," Malcolm wrote. "They also made it easy for students to check the directional patterns of their own antennas."

Joe Moell K0OV went on to say that: "Now is the time to plan for this year's CQ Worldwide Foxhunting Weekend, which will be May 12-13. CQ doesn't impose any rules or offer any awards for Foxhunting Weekend. That's up to you and the hams in your hometown."

To read the full 'Homing-In' article, see the February 2018 issue of *CQ Magazine*, available by subscription from the *CQ* store in digital or print format. Visit: <https://store.cq-amateur-radio.com/shop/>

Simplex scan

Would you like to monitor simplex channels as well as local repeaters away from the shack? One suggestion: use a scanner with memory channels and channel banks.

Program amateur repeater frequencies into one channel bank and simplex frequencies into a second channel bank. Most scanners allow you to turn channel banks on and off by pressing a single button. Modern scanners offer a wide frequency range, possibly covering from 29 MHz to 1296 MHz.

Here is a list of popular FM simplex frequencies:

29 MHz / 10 meters

29.600 National FM simplex

50 MHz / 6 meters

50.300 FM simplex (west coast)
52.490 FM simplex
52.510 FM simplex
52.525 Primary National FM simplex
52.540 Secondary FM simplex
53.000 Remote base FM simplex
53.020 FM simplex

144 MHz / 2 meters

146.520 National FM simplex calling
146.535
146.550
146.565 (PCARA foxhunt and events)
146.580
146.595

222 MHz / 1¼ meters

223.500 National FM simplex calling

440 MHz / 70 cm

445.000
446.000 National FM simplex calling

902 MHz / 33 cm

906.500 National FM simplex calling

1296 MHz / 23 cm

1294.500 National FM simplex calling

For additional simplex channels on VHF and UHF see: <http://ac6v.com/callfreq.htm>



Peekskill / Cortlandt Amateur Radio Association

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

E-Mail: mail 'at' pcara.org

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

PCARA Update Editor: Malcolm Pritchard, NM9J

E-mail: NM9J 'at' arrl.net

Newsletter contributions are always very welcome!

Archive: <http://home.lanline.com/~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 NewYork-Presbyterian/Hudson Valley Hospital, Rt. 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 and July/August break.

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 Mar 4, 2018: PCARA meeting, NewYork-Presbyterian /Hudson Valley Hospital, 3:00 p.m. Guest lecture: "Three Lives of the USS Slater" by Stan WB2LQF.

Sat Mar 17, 2018: PCARA Breakfast, Turco's, Yorktown Heights. 9:00 a.m.

Hamfests

Sun Mar 4: BARA Annual Auction, Westwood Regional HS, 701 Ridgewood Rd, Twntp of Washington. 1:00 p.m.

Sat Mar 10: Cherryville RA Hamfest, North Hunterdon Regional HS, 1445 State Rte 31, S Annandale, NJ. 8:00 a.m.

Sun Mar 18: Southington ARA Flea Market, Southington High Schl, 720 Pleasant Street, Southington, CT. 8:00 a.m.

VE Test Sessions

March 3, 10, 17, 24, 31: Westchester ARC Radio Barn, 4 Ledgewood Pl, Armonk, NY. 12:00. Pre-reg M. Rapp, (914) 907-6482.

Mar 8: WECA, Westchester Co Fire Trg Center, 4 Dana Rd., Valhalla, NY. 7:00 p.m. S. Rothman, (914) 949-1463.

Mar 11: Yonkers ARC, Will Library, 1500 Central Park Ave, Yonkers NY. 1:00 pm. Pre-reg. John WB2AUL, (914) 969-6548.

Mar 16: Orange County ARC, Munger Cottage, 183 Main Street, Cornwall NY. 6:00 p.m. Contact Joseph J. DeLorenzo (845) 534-3146.

Mar 19: Columbia Univ ARC, 531 Studebaker Bldg, 622 W 132nd St, New York. 6:30 pm, Alan Crosswell (212) 854-3754.



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