

# CQ de WA2LQO

Seventy Years: 1944 -2014

*The official independent voice of the Grumman Amateur Radio Club.*

DECEMBER 2014 VOLUME 87 NUMBER 12

---

**Merry Christmas Happy Chanukah Happy New Year**

\*\*\*\*\*

*See President's message for news about the GARC Holiday Party.*

\*\*\*\*\*

**HOW I BECAME A HAM (continued from November 2014)**

**By Bob Wexelbaum, W2ILP**

*Synopsis: I continue to discuss inputs from my friends and my teachers during my high school years. All were not hams but all were my Elmers.*

My senior year at James Monroe High was quite eventful and had a significant impact on what would become of me in the future. There were both good and bad aspects that I will relate here.

CBS and NBC were both experimenting with Color TV at that time and I had experience from building my own TV, so when Byron R. borrowed a color spinning disk and motor we experimented too. The frame rate for the CBS system differed from normal TV but I was able, (due to my knowledge of controlling the vertical and horizontal deflection rates beyond what the normal adjustments allowed), to adapt to the frame rate of the CBS system, but I could not sync the motor that spun the Red, Blue and Green color disc. When Byron and I looked through the disc while manually controlling its speed, for just a second we were able to see a red, white and blue flag of the U.S. in its true colors. I tried to invent a method for making an all-electronic system that could work with the CBS system without requiring a 3-Gun Color CRT. I wrote up my method and mailed it to CBS in Stanford, CT. I still have their letter of rejection, but I think that coming from a 17 year old kid, it was quite well documented, although not entirely practical. Eventually the all-electronic NBC system prevailed, mostly because it was compatible with the existing B & W televisions.

I also performed many radio experiments at home, including a super-regenerative VHF receiver that was capable of receiving FM broadcasts, AM aeronautical communications, and the audio from TV stations. I built it on in wooden cheese-box and learned a lesson from the way the tuning shifted when I took my hand away from the tuning knob. In addition to my pals, Al and Byron, there were a number of guys who were interested in radio experiments. I often had large groups in my small room where I demonstrated crystal sets, the Edison effect, regenerative and superhet receivers, TV adjusting, Wireless RF radiation from a signal generator, and other stuff...as well as failed experiments which added knowledge that might be useful to prevent future failures. My mother did not like me having so many visitors in our small apartment. In addition she was beginning to suffer mental illness (starting at menopause), which made her paranoid. Finally she broke down and in an extreme rage she threw all my guests out and began to bust up some of my equipment. After they left my mother said, "Why are you teaching those idiots? What's in it for you?"

The following history is painful to relate. I had mentioned that Dr. Lehman, my Physics teacher, was giving a Radio Course and I was a volunteer, helping Mr. Pedro, the lab manager, set up experiments for the course. I can remember that one involved throwing a stone into a baby-sized swimming pool and watching a rubber ducky at the edge of the pool then bob up and down. Then there were experiments using a large bell jar and a vacuum pump, a door bell, a small RF signal generator, and a radio receiver. These proved that sound waves could not travel through a vacuum but radio waves could. At some point I began to heckle Dr. Lehman. I felt I knew more than he did, and I was brazen enough to challenge him. His reaction was, "If you are so smart why don't you teach this class something that is correct yourself?" I then quickly remembered what

Stanly Milgram believed about ignoring obedience to authority, as well as what my mother had said about getting paid to teach the dummies, and I lost my self-control. I blurted out “You are being paid to teach this course, for which I can get no official credit. From what I have seen here you are incompetent. I don’t have to be obedient to you. I’m here just to help Mr. Pedro.” I, of course, was immediately sorry for my loss of self-control. Dr. Lehman did not report me to the principal or ask to meet my parents but prevented me from entering into the Westinghouse scholarship program or earning the school Physics Award. I kept my mouth shut during my Physic Classes and Dr. Lehman avoided asking me any oral questions. At the end of the Physics Course I took the Physics regents exam. I expected to get 100 % but lost 10 points because I had selected an essay question that asked, “How can you prove that light travels in a straight line?” This seemed to be an easy one. I said that you should produce a light beam using a focused light source and a parabolic reflector and shine it to a wall across a room (this was before lasers were invented) and measure the length of the light beam as being the shortest distance between the light source and the projected light spot on the wall. That distance is a straight line by the rules of geometry. However, the “correct” answer was to look at light through slits that were mounted in a straight line. The last time I remember speaking to Dr. Lehman was to tell him that the Regents Exam was wrong; the light experiment they described only proved that the human eye’s line-of-sight is a straight line. Dr. Lehman laughed, and said, “That’s only from your point of view.” I got an A in Physics even though I had lost Dr. Lehman’s friendship. I must admit that although I was not recognized as a genius by my teachers, as Stanley Milgram had been, I was given some latitude that did not prepare me for what was to come in college, either technically or socially.

Since my parents had no money to send me elsewhere, and I had earned no scholarships, I applied to take the engineering course at The City College of New York (CCNY), which was entirely free of tuition in those days. You only had to pay for your books and supplies, so I figured that I could go there while living at home with my parents in The Bronx and continuing to do some radio and TV service work. My application was accepted, as were the applications of many of my honor class classmates, including my friend, Marvin Kunins. We all had to take a two-day bank of tests at CCNY in Manhattan, similar to what are now the SATs. There were vocabulary tests, IQ tests, classical art and literature recognition tests, math tests, spacial relations tests and logical IQ tests. I did well in all tests except for the math test because I wasted too much time trying to verify each of my answers. Because of this I had to take a no-credit course in Advanced Algebra before I could even schedule the mandatory 5 credit course of Analytic Algebra and Calculus. I graduated Monroe in June of 1951. This has to end my story of how I became a ham. If I am able to do so, I plan to write future articles, more closely related to Ham Radio itself after I was licensed in July 1951.

#### **PRESIDENT’S NOTE by ED GELLENDER, WB2EAV**

We will be having an Italian dinner for this year’s Holiday Party on Wednesday, December 17th at Domenico’s (3270 Hempstead Turnpike) in Levittown. We start to gather at 5:30 PM and order at 6. The cost is \$25 per person with the club picking up the rest. (Alcoholic drinks extra.) In addition members in good standing who pay their 2015 dues at the dinner can do so at half price.

Domenico’s is on Hempstead Turnpike (NY24), 2 miles west of NY135 Exit 7W. Turn left onto Gardiners Ave (called Jerusalem Ave north of NY24) and then into the King Kullen Shopping Center. Note that the shopping center is L-shaped and Domenico’s entrance right at the corner makes it look very small, but once inside it is huge.

It is time for dues, which continue to be \$20, except \$25 for multiple members at one address, and \$10 for out-of-town retirees.

Ham Radio University, always highly recommended, will be at Briarcliffe College in Bethpage on Sunday January 4<sup>th</sup> from 9 AM until 4 PM. There are dozens of forums, door prizes and lots of friends for only \$3 admission. Be sure to check out in advance on their website at: [www.hamradiouniversity.org](http://www.hamradiouniversity.org)

Ed, WB2EAV

**GRUMMAN AMATEUR RADIO CLUB  
MINUTES OF GENERAL MEETING 11/19/2014  
By Karen, W2ABK**

The meeting was opened by Ray at 5:30 PM

**TREASURER'S REPORT – Ed, WB2EAV**

Finances continue to be in good shape.

**REPEATER REPORT – Gordon, KB2UB**

The 145.330 repeater is working.

The 146.745 is down temporarily but is being relocated.

**NET REPORT – Karen, W2ABK**

Thursday night net at 8:30 PM on 145.330 MHz had 3 check-ins.

Sunday morning net at 7:30 AM on 7.289 MHz had 3 check-ins

Because of interference from another net we had to QSY to 7.2895.

**VE REPORT – Ed, WB2EAV**

1 applicant applied to upgrade to Extra Class and passed.

3 VEs were present: Ed, WB2EAV, Bill, WB2OGX and Karen, W2ABK.

**NEW BUSINESS**

The 2014 Holiday Party will be held at Domenico's at 3270 Hempstead Tpk in Levittown.

Please see president's message for directions.

Members who attend will be given a \$10 discount toward their 2015 dues.

**PROGRAM.**

There was no heat in the building where the general meeting was held.

**GARC NETS: 40 Meters: 7.289 MHz at 7:30 AM EST Sundays**

Net Controller: Karen, W2ABK

**2 Meters (repeaters) Thursdays: 146.745 MHz (-600 kHz) at 8:15 PM**

**145.330 MHz (-600 kHz) at 8:30 PM. Tone for both repeaters: 136.5 Hz.**

GARC Net Controller Karen, W2ABK     **ARES/RACES NETS: Mondays.**

**MEETINGS**

General Meetings of the GARC are held on the 3rd Wednesday of each month, starting at 5:30 PM, at the Ellsworth Allen Park in Farmingdale. Driving directions and map can be obtained from <http://www.mapquest.com>. It is suggested that the GARC web site be checked to be certain of meeting location, which may change after this newsletter is distributed. Board meetings are held a week before the General Meeting at the Bethpage Skating Rink. Presently starting a noon. *Meetings may be cancelled or relocated. Check the website.*

**WEBSITE**

The GARC web site can be found at <http://www.qsl.net/wa2lqo> . Webmaster is Pat Masterson, KE2LJ. Pictures of GARC activities, archives of newsletters, roster of members, and other information about the GARC may be found there.

## INTERNET LINK OF THE MONTH FOR INTERNERDS

The internet link for this month is:

<http://www.hackaday.com>

This is a very good site for getting technical experimental method information but for those who may not be technically inclined it is a good site for finding historical information about the history of electronic devices that we might now take for granted.

When you get to this home site today you will probably find articles about using an oscilloscope to look at a bridge rectifier. What was more interesting to me is an old 1979 video from AT&T predicting what our cellular telephone system (then called Advanced Mobile Phone Service [AMPS] ) would be like in the future (which is now). In 1947 there were 21 quite expensive mobile phone channels in the 31 and 150 MHz bands using a simplex protocol like mobile Ham Radio. 12 Channels were added in 1952 in the 450 MHz band, and finally the FCC allocated 666 channels in the present 850 MHz band, with full duplex operation. How this all works together with the land line (POTS) telephone system is explained in the video. Don't miss it because it might help you to realize what might go wrong when it doesn't work in an emergency and you might need to use your trusty Ham Radio HT.

Be sure that your audio is on and click on the box that says "The past about Ma Bell's Advanced Mobile Phone Service (AMPS)." Then, scroll down and click on the triangle in the picture of a cell pattern that forms a star. If this does not work you might Google it up by going directly to the archives of an AT&T site.

Try the hackaday site occasionally; You never know what it might hack up.

### PUZZLE

*Last month's question was:-*

What is meant by the dynamic range of a communication receiver?

- A. The number of kHz between the lowest and the highest frequency to which the receiver can be tuned
- B. The maximum possible undistorted audio output of the receiver, referenced to one milliwatt.
- C. The ratio between the minimum discernable signal and the largest tolerable signal without causing audible distortion products
- D. The difference between the lowest-frequency signal and the highest-frequency signal detectable without moving the tuning knob.

*Answer:-*

The correct answer is C. Note that dynamic range is a RATIO.

*Next month's question is:-*

What is the limiting condition for sensitivity in a communications receiver?

- A. The noise-floor of the receiver.
- B. The power supply output ripple.
- C. The two-tone intermodulation distortion.
- D. The input impedance of the detector.

**GARC Officers**

President: Ed Gellender, WB2EAV 516-507-8969 wb2eav@yahoo.com

Vice President: Gordon Sammis, KB2UB Retiree 631-666-7463

Secretary: Karen Cefalo, W2ABK 631-754-0974

Treasurer: Ed Gellender, WB2EAV (see above)

WA2LQO Trustee: Ray Schubnel, W2DKM Retiree

2 Yr. Board Member: Jack Cottrell, WA2PYK Retiree 516-249-0979

1 Yr. Board Member: Dave Ledo, AB2EF

1 Yr. Board Member: Jack Hayne, WB2BED

1 Yr. Board Member: George Sullivan, WB2IKT

**Newsletter**

CQ de WA2LQO is published monthly by the Grumman Amateur Radio Club for its members and friends.

Editor: Bob Wexelbaum, Retiree 631-499-2214 w2ilp.RADIO@gmail.com

Contributing writers: All GARC members (we hope). To submit articles or ham equipment advertisements contact the editor. Articles will only be edited when permission is granted by the author.

**GARC Webmaster**

Pat Masterson, KE2LJ Retiree 813-938-4614 Pat-Masterson@tampabay.rr.com

**GARC VE Exams**

We normally proctor exams for all classes of ham licenses on the second Tuesday of each month, starting at 5:30 PM. The exams may be given at various locations. Ham Exams are: Element 2 – Technician, Element 3 - General, Element 4 – Amateur Extra Class. All applicants must pre-register to determine the location of a VE session by contacting Ed Gellender WB2EAV. Time and location of exams are subject to change. If there are no applicants VE sessions will be canceled. The fee for 2015 is \$14 for all exams taken at one sitting. New first-time applicants should be aware that their Social Security Number will be required on the application form unless they register with the FCC for an FRN. Applicants for an upgrade should bring their present license and a photocopy of it. All applicants should bring picture ID such as a driver's license. Study material may be bought from the ARRL-VEC or W5YI-VEC <http://www.arrl.org> or <http://www.w5yi.org>. All VECs use the same Q & A pools.

**Editorial**

My XYL and I attended the Hudson Division Awards Luncheon. We arrived late, due to getting lost on the way, and were seated at a table with Ed Gellender. Ed was the only other GARC member in attendance, as far as I know. All the living ARRL NY-LI field officers were there. We won no door prizes and bid in no auctions but we had a good time and were glad to see many members of other NY-LI clubs that were there.

I've been busy with the family gathering of all of my three children during the Thanksgiving holiday. I must report that my health has not been improving much and I get very tired when attempting to do any shopping or household work.

I hope that all the readers of this newsletter will pay the club dues for 2015 so that I may continue putting together newsletters with a steady hand. Don't mail dues to the old GARC box number. Use the 215 Birchwood Park Drive, Jericho, NY 11753 address. As always, your comments or suggestions are welcome.

Happy Holidays to all. Keep your antennas up and watch out for the bandersnatchers.

73 de w2ilp (I Like Peace) di dah di dah dit dah di dah

Grumman Amateur Radio Club  
215 Birchwood Park Drive  
Jericho, NY 11753

FIRST CLASS MAIL

*Do Not Delay*

**THE GRUMMAN – NORTHROP GRUMMAN RETIREE CLUB**

**By Bob Wexelbaum. W2ILP**

The banner of the Grumman retiree club has changed. What was once the Grumman Retiree Club. Inc. will now become the Grumman – Northrop Grumman Retiree Club because it is the club for people who had retired after working for Grumman as well as those who had retired after working for Northrop Grumman. On the banner for the Bethpage Chapter we also see a change. It is now called the Parent Chapter, so as not to mention Bethpage, which may no longer exist as the home headquarters of the retiree club. I have been a member of the Retiree Club since I left NG. Because I live in Commack I could have joined either the Bethpage chapter or the Eastern Long Island Chapter. Although I spent much of my time working in Calverton on the EA6B program, I opted for the Bethpage Chapter, which as I said, is now to be called the Parent Chapter. To tell the truth I have gone to very few meetings and parties that were run by the retiree club, but the few that I did go to had very good speakers and very good food at the Crest Hollow Country Club, and fine Holiday Parties at the Milleridge Inn. When I first joined the retiree club the dues were only \$3. The postage for the newsletters was provided by Grumman in those days. Last year the dues for the Bethpage Chapter were \$13.00. The 2015 dues will now increase to \$15 per year. This is because of additional costs of publishing and mailing the Newsletters and because of a decrease in membership due to many members passing away. There was no August Newsletter every year because of little activity in July. Now there will also be no September newsletter because of little activity in August. This reduces mailing costs because there will now be only ten newsletters per year. Some of these changes are somewhat similar to those that we face at the GARC, only on a larger scale. Like the GARC, the retiree club is now to be independent from NG. The retiree newsletters have been arriving late. The October and November issues were very late and this was partly blamed on the Post Office. As of this writing I have not yet received the December issue. The retiree club does get contributions from companies that advertise in the newsletters and those who donate money to the club in their wills.. The Bethpage Credit Union is a big contributor. The retiree club is incorporated as a non-profit organization and can give 501(c) type receipts for all tax deductible contributions. The retiree newsletter claims a circulation of over 3,000 and the club has 20 active chapters. Preparing the newsletters is accomplished entirely by member-volunteers.