CQ de WA2LQO

Sixty Nine Years: 1944 -2013

The official voice of the Grumman Amateur Radio Club

November 2013 VOLUME 86 NUMBER 11

How I Became a Ham (continued from October 2013)

By Bob Wexelbaum, W2ILP

Synopsis: My interest in radio started very early at a time when I gullible enough to think that ESP was possible, I became interested in Ham Radio when I learned that hams could transmit their voices everywhere that radio waves could travel. When I decided to become a Ham, I knew that I had to learn Morse code and technical radio theory in order to pass the ham exams and I found folks who could help me. There was a building superintendent named Johnny who helped me practice Morse and a number of hams who answered my technical questions.

At the time I was 13 years old and in eighth grade in P.S.77 my science teacher discouraged me from becoming a Ham. He said that the Ham Radio hobby was foolish and Hams could set back progress by interfering with normal people who listened to normal radio broadcasting. My parents were not very supportive of my radio hobby because I spent a lot of time with it (and also what they believed was a lot of money). There was little space for my hobby and the stuff I was collecting in our small three room apartment. We had no living room since I was using it as my bedroom and radio laboratory

When I was living in the Bronx I did have some advantages that my kids didn't have on Long Island. I lived in an area of very dense population with six story apartment house buildings on both sides of my street. Each of these buildings housed 100 – 300 families. Within easy walking distance, (or the next subway stations) there were many such streets, with many such apartment buildings. Because of the odds that favor large numbers it wasn't surprising that the street that I lived on housed several sets of twins, a giant, a midget and a mongoloid idiot among its population…and they were all there! It also should not surprise you to find that there was a young man on Stratford Avenue named Stanley Bernstein and another guy on the on the next block (Manor Avenue) named Byron Rudinsky who were both interested in radio. Because I was always an egotist, I enjoyed trying to teach what little I knew about Ham Radio and radio technology to Stanley B. and Byron R. Trying to impress others by being a teacher can be a great way to teach yourself. As you lecture about Ohm's Law you suddenly see where it is applicable for everything that is electrical in ways that you might never have thought of before. I built a simple code practice device for Stan B. with parts he bought on Cortlandt Street, and HS-33 headphones from Leotone. I ran experiments in my apartment. I demonstrated my crystal sets and my 3 tube radio to my friends. I replaced the crystal detector in one of the crystal sets with a diode vacuum tube and demonstrated the Edison effect. In a Heathkit flyer I saw plans for a VHF super-regenerative receiver using a single miniature 6C4 triode tube. I bought a 6C4 by mail order for 30 cents, postpaid, with three dimes taped to my order. The 6C4 has a 150 ma. heater, and I wired it in series with the tubes of my three tube radio, which have 300 ma heaters, and connected the audio output to the radio's audio amplifier stage. The 6C4 heater blew open. I had to order another 6C4 and wire a resistor in parallel with its heater to make the circuit work properly. I wound the coils for the VHF circuit on polystyrene rods that I bought from Lafayette Radio, exactly as the plan called for. I was able to hear the audio from the seven New York TV stations…probably by slope detection. Tuning my 6C4 was very tricky because the capacity of my hand on the tuning shaft knob detuned it. All of these things were shared with my friends in a way that all of us could never learn about in any school. We also listened to Hams on the air with my NC-57 receiver. I built a 10 Meter converter by modifying a discarded TV booster that I found in the Bronx River dumps. This converter improved the sensitivity of my NC-57 and eliminated the images. I became acquainted with many of the local hams that I often heard, often on

10 Meter nets, although most had never met me because I was not yet licensed to transmit.

Byron R. was probably the most respectful person I have ever met. He was certainly the opposite of Stanley Milgram….because he was always obedient to every authority….He was always respectful to me, perhaps because he understood that I could teach him technical stuff that was worth learning…even if I was sometimes wrong. Although he wasn't a Boy Scout he was always doing good deeds. He delivered prescription medicine from a local drug store to the sick and elderly and never accepted any tips, even when he had to walk up six flights of stairs. Many of the kids on the block thought that Byron and I were nerds because we never played stick ball, stoop ball, kick-the-can, Johnny-on-the pony, Ring-a-levee-o or any such games. Instead we spent our time outdoors, in all kinds of weather, discussing radio theory and practice while reading library books and magazines on those subjects.

Completing eighth grade was more important in 1947 than eighth grade is today. Graduating P.S. 77 was a turning point. Byron R. and Stanley B. were not in my honor class; I remember all the youngsters that were. We had autograph books which we were allowed to bring to all our classes on the last day before the graduation ceremony. I still have my autograph book which commemorates my elementary school graduation and still picture in my mind all the classmates and teachers who signed it. Stanley Milgram got in trouble again when a fourth grade teacher complained that he was making too much noise …. Apparently she wasn't aware that he was a genius! All the kids didn't go on to James Monroe high school, which is across the street from P.S. 77. Some went to Stuyvesant, Music and Art, or the Bronx High School of Science.; others went to apprenticeship or trade schools or business schools. A few dropped out of school entirely, although they could have been visited by truant officers for not attending any school before reaching the age of 16. It is interesting to see how many of my honor-classmates became famous; how many became failures; as well as how many were pictured in the James Monroe high school year-book four years later.

(To be continued)

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

Save the date! In less than two months, Sunday January 5, 2014, Ham Radio University will again be at Briarcliffe College in Bethpage. It is always very interesting and I recommend going. Apparently this year's keynote speaker will be ARRL Hudson Division Director – and friend of the club – Mike Lisenco, N2YBB, who always has interesting things to offer.

While not directly ham radio related, I have an interesting electronics story to relate. The other week I made a tour of the New York Subway System's central maintenance shop in Queens. Whenever any electronic equipment is replaced at any NYC Transit location, the removed assemblies are sent to the common repair facility where most of them are repaired and sent back out to the field. They go through great pains to keep the number of throw-away assemblies at a minimum and repair them themselves. They have all the usual oscilloscopes and stuff, as well as impressive work stations for surface mounted components. Most of their business is repairing small printed circuit boards that are used in Metrocard vending machines and turnstiles, but the interesting stuff runs the gamut from electronic signs to air-conditioning controllers to the new-fangled motor drives that weigh over 500 pounds.

About twenty years ago there was a huge – yet totally invisible – revolution. Semiconductors reached the point where thousands of amps and hundreds of volts could be switched by solid-state devices as big as hockey pucks. It allowed trains to move away from relays connecting DC motors through various combinations of series and parallel combinations as they accelerate to a more efficient and smoother design, where AC induction motors are driven by inverters that generate a variable frequency. As the motor speeds up to catch up to the drive frequency, the frequency increases and stays a bit ahead, like dangling a carrot in front of a donkey. These drives handle hundreds of horsepower at efficiencies approaching 90%, but the heatsinks must be big enough that they need to be moved around with forklifts.

Ed, WB2EAV

GRUMMAN AMATEUR RADIO CLUB

MINUTES OF GENEFRAL MEETING 10/16/2013

By Karen, W2ABK

The meeting was called to order.by Gordon at 5:35 PM

TREASURER'S REPORT – Ed, WB2EAV

Finances continue to be in good shape.

REPEATER REPORT – Gordon, KB2UB

Repeaters are working OK.

NET REPORT – Karen, W2ABK

Thursday night net at 8:15 PM on 146.745 MHz had 4 check-ins.

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 0 check-ins.

VE REPORT – Ed, WB2EAV

Two applicants applied, for the Technician exam and passed, one of them tried to upgrade to General and failed.

3 VEs were present: Ed, WB2EAV, Dave, AB2EF, and Karen, W2ABK.

OLD BUSINESS

Discussing locations for next year's picnic in Suffolk County parks. Checking use of Haypath location for Field Day 2014.

NEW BUSINESS

Reviewing GARC equipment that is now stored at Northrop Grumman.

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

Net Controller: Eugene, W4JMX

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 third 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. *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 website for this month is:-
http://www.washingtontimes.com/news/2013/oct/31/inside-china-nuclear-submarine-capable-of-widespr/

This is a news report about reports found in several recent Chinese newspapers and publications that brag about China's ability to launch nuclear weapons of mass destruction from new Chinese submarines. Such subs could attack major American port cities where large human populations exist. We have seen the result of 9/11, Katrina and Sandy…but a nuclear bomb attack would be much worse than anything we have unfortunately suffered before. The world is living under the potential lethal abilities of all major powers, and some smaller nations as well, to use WMDs which could lead to WWIII and the destruction of the entire Earth. Obviously nations must negotiate to produce lasting peace treaties and avoid conflict…but counter threats must remain "on the table" and defensive security and intelligence must be provided. This means that we must be prepared to use anti-submarine warfare (ASW) patrol aircraft and our own nuclear subs to counter the threats and defend ourselves. Seems to me I heard that stuff before…but now we hear it again. It will make work for those in industries…like Northrop Grumman ….. so that might be a plus.

PUZZLE

Last month I asked the following physics question:-

As a motorcycle or bicycle increases it forward velocity (speed) its lateral stability increases?
True or False? Why? Why not?

This is TRUE, especially in the case when the bike is driven straight ahead. There are two Force vectors involved. One is a function of the bike's forward velocity and the other is the straight down Force of gravity, acting at a right angle from the velocity Force vector. The two vectors determine a geometric plane which goes through the centerline of the bike. This is the plane of lateral stability. Any destabilizing force could act to produce a vector perpendicular to that geometric plane. As the forward Force velocity vector increases the possible development of any destabilizing force has less effect on the resultant vector, since the size of the geometric lateral stability plane becomes greater and more significant.

This month I'll ask another physics question:-

What is the Frisbee effect?
Who first noticed it? What government agency spent lots of time and money researching it?

GARC 2013 Officers

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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.
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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 2013 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

Happy Thanksgiving to all.
The last installment of Bert's K2DOD's article is on page 6.
The story about how I became a Ham continues on Page 1. The next chapter of this saga will be in the December 2013 issue of this newsletter. I can promise that it will include some surprises. If all goes well, I hope to continue throughout 2014 and tell about my early days of being a ham, after 1951, when I graduated high school and earned my ham license.

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FIRST CLASS MAIL
Do Not Delay

HISTORY OF THE CAR RADIO
By Burt M. Wengler, K2DOD (continued from last month)

Whatever happened to the two men who installed the first car radio in Paul Gavin's car?
Elmer Wavering and William Lear ended up taking very different paths in life.

Wavering (1907-1998) stayed with Motorola. In the 1950s he changed the automotive experience again when he developed the alternator with rectifier diodes that replaced inefficient and noisy DC generators. More efficient battery charging made it possible to add such luxuries as power windows, power seats, and eventually air-conditioning as standard equipment on cars.

Lear (1902-1978) also continued inventing, earning over 150 patents. Remember eight-track tape players? Lear invented them. Lear is most famous for his contributions to the field of aviation. For example he patented a synchro known as the Learsyn that works with lower voltages and is physically smaller than conventional synchros, allowing aircraft servo control systems to run more efficiently and consume less power. Many of Lear's devices were used in airborne automatic direction finders, automatic pilots, and instrument landing systems. In 1963 the world's first mass-produced affordable business jet; the Lear Jet became Lear's most famous product. Not bad for a guy who dropped out of school after the eighth grade.

Sometimes it is fun to find out how the things we take for granted actually came into being.