

CQ de WA2LQO

Seventy Years: 1944 - 2014

The official voice of the Grumman Amateur Radio Club

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HOW I BECAME A HAM (continued)

By Bob Wexelbaum, W2ILP

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

The adolescent years are difficult for many people. Most youngsters must adjust to the increasing need to become serious students academically, vocationally or both. This becomes more important as they mature. There is also the social maturity aspect. How must adolescents relate to each other and to their teachers? It is now understood that teachers are responsible to respect kids with differing personalities, so as not to damage their self-esteem. There will always be youngsters bullying each other or discriminating against each other socially. Cliques of average kids can ostracize the brightest ones; and so it was with my friends and me. We found ourselves in "a class by ourselves" because we were interested in radio more than in sports or in attempting to socialize with the girls. We didn't have the time or money to get involved in proms or to attend our school's athletic team events. Today we would be called "geeks," but I do remember one English teacher who called us "Sickly green creatures", because that is how she observed our complexions. That was before teachers were trained to respect both gifted children and those who were mentally limited. Teenage boys start growing facial hair and have to learn how to shave, but despite instruction from their fathers, not every boy attaches the same importance to shaving. In my case, listening to my NC-57, reading books, doing homework, building Heathkits, and getting to school on time usually took priority over carefully shaving my face. During my first year in high school, at a Stagecraft class, Mr. Englander, the teacher, noticed that the hair on my upper lip was not properly shaved. He commented, "If you want to grow a mustache, you should rub condensed milk on your lip and bring a cat to bed with you." I said nothing. This was supposed to be humorous. It wasn't funny to me. I later learned that he had said the same thing to other boys who had hairy faces. He apparently enjoyed telling this joke to embarrass boys who didn't shave properly, but I believe that he would not have told such a joke to an unshaven mesomorph. During my second year at high school, I started a radio and TV repair business. This further limited my shaving. I had volunteered to assist in the Physics Lab and help Mr. Pedro, who was the Lab Manager. One day Mr. Pedro asked how my business was doing. I replied that I had more work than I could handle. "Why is that?" asked Mr. Pedro. I answered, "It is because people think that if a youngster can fix something he will charge less than an adult. People always look for bargains." Mr. Pedro then said, "How can you expect people to do business with you if you don't shave?" I had remembered the teasing I got from Mr. Englander. I couldn't take it anymore and I stupidly lashed back at Mr. Pedro, "People don't care what a repairman looks like. They would hire a drunken N---- if he could do his job cheaply and effectively?" This was a big mistake. I did not know that Mr. Pedro was black. He was lightly pigmented and I had thought that he was Hispanic. My relationship with Mr. Pedro was never quite the same after that discourse. I learned from Al, W2ESU that Mr. Pedro was black because he had shown Al pictures of his wife and children that were definitely black. Mr. Pedro told Al that he was certified as a Science teacher but could only get hired as a lab manager because of racial discrimination. That was in the 1940s. Shaving is a subject that has also evolved with time. There is a famous photograph of the hairy staff at Apple, and another of the staff at IBM. IBM management pointed out that they didn't want anyone who represented IBM to look like the Apple's bearded "informal bums." I believe that remains IBM's policy.

My friend, Byron R. passed the Ham exam during our third year of high school and became the second kid

at Monroe to do so, while I was still failing the CW test. I don't remember his call letters. He never built or bought any ham gear. His ham license expired long ago, when he married a Rabbi's daughter and became part of a Hassidic community. My friend Al finally got his transmitter working without further help from W2LTQ, or advice from me. A man, who learned about Al's transmitter problems at the Bronx Radio Club came to Al's apartment and got two parallel 1625's to work as a class C final amplifier, delivering about 120 watts plate input on 10 meters. He got it AM modulated with push pull class B 1625s. I don't remember the name or call of that ham. Al said that the Elmer had brought his own tools and copper tubing for the final 10 meter tank coil and the job was completed in less than two hours, including the time it took to test the percentage of modulation using Al's Heathkit oscilloscope. I could then hear Al on 10 Meters chatting with hams, including ones that were near to our age, but went to different Bronx High Schools. Murray Cohen W2EHW lived near Pelham Parkway and Herman Richards W2EPT lived near Crotona Park. There was a ham named Lalino (I don't remember his call), who transmitted from the original LaSalle Military Academy, at Classon's Point. It was only after I invited Herman to visit my home that I realized that he was black, and that there were many black hams in NYC. Most didn't sound like blacks on AM and we never knew what race CW operators might be unless we met them in person.

My family did not have a TV set at the time when I was installing TV sets for others. George Bolger, a boy in my English class, was so impressed by an essay I wrote about TV technology that he invited me to meet his father and to advise him about what would be the best TV set to buy at the best price. I had gotten many fliers from the stores on "Radio Row" and advised Mr. Bolger to buy a clone of RCA's famous 30 tube Model 620TS. There was one on sale which had a 16" rectangular CRT. Mr. Bolger bought the TV set and an antenna that I had suggested. I installed the antenna in his attic, connected it up, turned it on, and made a few adjustments. The Bolger family was very pleased. It was the best TV picture that they had ever seen! I did not ask to be paid, but was instead rewarded with a five course roast beef dinner with the Bolger family. I was also invited to come to watch TV at any time. This was great because up until that time I could only watch TV with my friend Marvin and his two brothers. George had a beautiful blonde older sister which was a made watching TV at the Bolger's much better. It was frustrating to learn that she was engaged to an older man. I decided that I would have to get a TV set of my own for my parents and myself. Next month, I'll explain how I made my own TV.

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

The end of Grumman Aircraft is upon us. In a few weeks there will be no aircraft work of any kind going on in Bethpage, and I too will be gone. We intend to keep the club going, unaffiliated with Northrop Grumman.

Don't forget the upcoming Hudson Division Awards Luncheon on Saturday November 8th from 12 – 4. It will be at Towers on the Green at North Shore Towers. Reservations and full details are on the website <http://hudson.arrl.org>. Note that it costs \$50 and reservations are due by October 20. The club board is discussing picking up part of the tab for members who attend.

In recent years there have been a number of high efficient replacements for household incandescent bulbs. Compact fluorescent lamps (CFL) use only a quarter of the electricity of an equivalent incandescent and Light Emitting Diode (LED) bulbs use about a sixth of what an equivalent incandescent uses. I have bought a number of each and thought that I would describe my findings.

CFLs are definitely more expensive than incandescents, but with electricity at 22 cents per KWH here, it doesn't take long to earn back the investment. They are quite inexpensive at places like Home Depot (\$1.50) but I have found that they have reliability issues, with many soon failing. If they make the first few months, they're usually good for the long haul. Another issue is that they take time to reach full brightness, and when used outdoors in the cold, they stay dim. In some applications that is not an issue, but when I turn on the bathroom light to shave on a dark morning, it can be annoying. LED bulbs do away with the brightness issue, and so far I have not seen any failures. They use as little less electricity than CFLs, but they are expensive enough (\$5 – 15) that the added efficiency takes a long time to pay off, so they are best used where they excel – like in my bathroom. . . .

Ed, WB2EAV

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**GRUMMAN AMATEUR RADIO CLUB
MINUTES OF GENERAL MEETING 9/17/2014
By Karen, W2ABK**

TREASURER'S REPORT – Ed, WB2EAV

Finances continue to be in good shape.

REPEATER REPORT – Gordon, KB2UB

The repeaters are working.

NET REPORT – Karen, W2ABK

Thursday night net at 8:15 PM on 146.745 MHz had 3 check-ins.

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

The Sunday morning net at 7:30 AM on 7.289 MHz had 0 check-in.

VE REPORT – Ed, WB2EAV

Two applicants applied for the Technician exam. One passed and one failed.

Three VEs were present: Ed, WB2EAV, Bill, WB2QGZ, and Karen, W2ABK.

OLD BUSINESS

WE need presentations for our meetings.

NEW BUSINESS

The ARRL Annual Awards Dinner will be held on November 8th at The North Shore Towers.

PROGRAM

We discussed dead zones on Long Island and problems due to hilly terrain.

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

GARC 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. *Meetings may be cancelled or relocated. Check the website.*

WEB SITE

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

Go to <http://hudson.arrl.org>. if you are seeking information about the Hudson Division Awards Luncheon.

PUZZLE

Last month's question was:

Which signal mode or modes have been designated as Amplitude Modulated (AM) Modes by FCC definitions?

- 0 An unmodulated continuous wave (used as a beacon)
- 1. A Morse Code keyed continuous wave
- 2. A Morse Code keyed tone modulating a continuous wave carrier
- 3. A voice modulated continuous wave carrier
- 4. Facsimile
- 5. Television video
- 6. All of the above

The answer was not what some might expect. Technically only answers 2 through 5 require amplitude modulation. The FCC however initially designated all of the above (6) as types "A" for AM. Thus answers 0 thru 5 were defined as A0, A1, A2, A3, A4 and A5 respectively! There were other sets of designations that started with "F" for Frequency Modulation and P for Phase Modulation. I can't understand how F0 or P0 could differ from A0...and that may be why new FCC designations were decided upon which more completely define modes. The modes are no longer designated in FCC Part 97 but questions about them may appear on ham exams. The commercial FCC study guides have been more specific about recent designations but there still are ambiguities. Different data modes require special designations. RTTY is frequency shifted and thus is a type of FM. Hellschreiber, where black pixels are no different than key down CW, becomes a special mode. According to the newer Commercial study guides the FCC now uses different names to describe modes. For example: G3E = FM phone with a reactance modulator on the oscillator. A3C = facsimile, A3F = television, F3F = Frequency modulated video television (I've never heard or seen it used). In the new system the first letter stands for the main modulation type. The second place is a numeral same as the option numbers above and the third place is a letter that stands for the type of information that is to be transmitted. Now let me give you a more complete list.

FIRST SYMBOL: N = Emission of an unmodulated carrier. A = Amplitude Modulation. J = SSB, suppressed carrier. F = Frequency Modulation G = Phase Modulation P = Sequence of unmodulated pulses.

SECOND SYMBOL: 0 = No modulating signal 2 = Single channel digital information, no modulation. 3 = Single channel carrying analog information. 7 = Two or more channels carrying digital information.

8 = Two or more channels carrying analog information. 9 = Combination of digital and analog information.

THIRD SYMBOL: N = No information transmitted. A = Telegraphy to be received by human hearing. B = Telegraphy to be received by automatic equipment. C = Facsimile transmission of pictures by radio. D = Data transmission, telemetry, telecommand. E = Telephony, (voice information) F = Video television. W = Combinations of above? Missing numerals and letters may be held available in anticipation for secret codes on a "need to know" basis. Ham are not permitted to use any modulation mode that the FCC is unable to monitor ... unless its software was initiated by a Japanese or South African Ham and freely distributed worldwide Any other signal - modulated or not - may be purely coincidental. All signals using trade names remain the properties of their creators, unless they evolved from random noise.

Next Month's question is:

What is the time constant of a circuit having two 100-microfarad capacitors and two 470-kilohm resistors in series?

- A. 470 seconds
- B. 47 seconds
- C. 4.7 seconds
- D. 0.47 seconds

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Newsletter

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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 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

It is Thursday night and usually time for the WAG nets. I got a note from Karen that says that she won't be available to run the nets tonight. It is getting late and my work on this newsletter must be completed sooner than I realized because this month started on a Wednesday and the 2nd Wednesday when the board meets came up sooner than expected. I keep thinking that I have time because I think of the VE session which comes up later on the second Tuesday. Anyway Ed needs some time to edit this newsletter so I had better sign off now.

—Bob w2ilp (I Like Peace)—

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FIRST CLASS MAIL
Do Not Delay

When good CFLs go bad By W2ILP

Ed mentioned CFLs in his message. Dave Ledo and I have previously written about CFLs here. Because I have had enough failed CFLs to qualify as a significant sample, maybe I should report as a QC analyst. I think my home now is a better CFL test lab than Consumers Union. When charged my kitchen renovation on a new Home Depot credit card, I earned a \$500 gift card which I decided to use to light the whole house with CFLs. I bought dimmable CFL flood lights for my den; CFLs for all portable lamps, CFLs for the dining room drop fixture and ceiling fans as well as outdoor floodlights. The bulbs keep failing, but since they are guaranteed for 9 years, when I accumulate 4 bad ones I bring them back to Home Depot for 4 free new ones. The base of the CFL contains a starter circuit that generates a high voltage to ionize the mercury vapor, and once the CFL is properly started it can stay lit for years. However, the startup process places the switching circuit under great stress. If a CFL takes long to light it is most likely because the switching circuit has been burned and will soon fail entirely. The old long tube fluorescent fixtures use replaceable starters, but the CFLs do not. The chopping circuit of a CFL works like a switching power supply in that it is easier to filter higher frequency chopping rates than it is to filter 60 Hz. The surprise is that the higher the chopping rate, the lower the EMI. The startup voltage gets its kick from capacitive reactance and a voltage multiplying method. Most of the circuitry resides in a single dual inline chip, which has limited ability to dissipate heat. When it takes more than several milliseconds to start, the chip overheats and may actually burn out like a 1/4 Watt resistor with 2 Watts applied. The first CFL that went bad in my home was a 100 Watt equivalent mounted in the ceiling of my upstairs hallway; probably the warmest location in my house. It started smoking and tripped a nearby smoke detector. I haven't bought any LED lights yet except for battery powered flashlights. I don't know if I'll live long enough for any LEDs to pay for themselves. I'm sure that I won't be able to install any solar panels that will pay for themselves either. That is why George Burns didn't buy any green bananas. -w2ilp--