

CQ de WA2LQO

Seventy Two Years: 1944 -2016

The official independent voice of the Grumman Amateur Radio Club.

February 2016 VOLUME 89 NUMBER 2

How Ham Radio Prepared Me to Become an Engineer

By Bob Wexelbaum, W2ILP

I arrived at The South Eastern Signal School, where I had been ordered to attend a 6 month course to prepare me to become a Field Radio Repairman. Like all things militarily numbered, this Military Occupational Specialty (MOS) is 1648. The final month I repaired radios both in an indoor shop and under field conditions. The barracks where I slept and mess hall where I ate were on the side of a large parade field. Each MOS had its own barracks, and I was glad to learn that the Radio Telegraphers resided in a different set of buildings. They were participating in an experimental subliminal method, learning rapid Morse Code in their sleep, with high speed CW tapes played at various levels all night. There was a rumor that some of the "Telegraphers" had cracked up and become mental cases due to excessive code exposure. I wonder if the rumor was propaganda devised to make us 1648s even prouder to be students of a specialty, pragmatically learning to fix radios. I was given a Signal Corps button (crossed flags and a torch) to wear on the opposite lapel that a "US" button was pinned to, and a cap with piping in Signal Corps orange. We were ordered to wear our full dress uniforms for all indoor classes. There was no school on Saturdays and Sundays, but we were not given freedom to leave the base if our barracks did not pass inspection. Each school day we marched across the parade field in a formal parade to and from the school area to Sousa marching music that blared with multi-kilowatts of audio power, reverberating across the parade field and synchronizing our cadence. On one side of the parade field we were SOLDIERS, in fatigues and were ordered by a company commander. On the other side we were STUDENTS in dress uniforms and were instructed by instructors. Most of the instructors were military sergeants or officers. A few were civilian civil servants.

The first day of school was known as "The Air Show". It was designed to motivate and inspire students by showing what mobile and airborne communication was capable of. First an Army tank was ordered, to turn left and right and then stop, by a soldier on the ground who communicated with it using a PRC-6 HT. Then an L-17 aircraft was directed to fly over a soldier on the ground who used a PRC-6, and to pick up a package that had a hook on it, with a rope that hung from the plane, and to drop the package on the tank. All radio communication was monitored, so that it could be heard by the student audience. Obviously I was not greatly impressed, with my Ham Radio HF experience, including mobile ARES drilling. All of this short range military stuff was on VHF frequencies that were only fit for newbie Ham Technician Class Ops in my mind at that time. Students who didn't gather much memorable education out

of the school remembered the first day (love at first sight?) because they lamented, "I've been snowed since the air show".

I was not impressed by most instructors, who just read from manuals and could not answer student's questions; however some of the instructors were hams, and they were self-motivated to teach electronic theory and practice just like the civilian hams that had helped me. During my second week of school an instructor was puzzled by a circuit using a 1T4 vacuum tube as an amplifier. He asked how the control grid could be biased negatively, because the 1T4 has a bare filament and no cathode sleeve. I explained that there was an average of 0.7 Volts filament bias because one side of the filament was connected to 1.4 volts DC and the other side to ground. This put the control grid at - 0.7 Volts in relation to ground. My explanation impressed the instructor so greatly that he asked me to see the Master Sergeant who supervised the instructors. The Sergeant asked me if I would be interested in taking what he called "Phase Tests", which were not tests about electrical phase. They were tests given to the students after each basic technical subject was taught. He said that if I passed the tests I could skip weeks of the related course material. This I did in one day and in every case I was told that I had passed with grades above those of average students, except that I failed the last test which was about RTTY. I'll tell you how I finally passed the RTTY Phase Test after only one evening of study in next month's newsletter.

First I'll tell you about a memorable event that happened to me while in the soldiering area of Camp Gordon. After school let out we had marched back to the soldiering area and had to remove our dress uniforms, shower and put on our fatigues and line up at the mess hall entrance for supper. Guys like me were always hungry. We were called "chow hounds". To discourage getting on line too soon, the first 5 or 6 guys were often ordered to work as servers. Servers had the disadvantage of eating last, after the entire company was served, and the possible advantage of getting extra deserts that usually remained when most others were full. On this particular day I hardly had a chance to finish my main course when the entire company had to report to the company commander for "Pay Call". The custom was that everybody had to personally report in order to receive their pay envelope, which contained cash. We were called alphabetically, with "Wexelbaum" being toward the end of the line. Each man had to hand salute and say, "Sir: Private *their last name* reporting for pay, Sir." On the serving line my job had been to drown the liver that had been served by the previous server with greasy fried onions. I was wearing my oversize fatigue shirt and my right sleeve got loaded with many onions that never reached the liver. When I got called, I reported, "Sir: Private Wexelbaum re...Oops... Sorry Sir". My swift hand salute had propelled great wads of fried onions all over the company commander. I was trying to wipe the grease off the shocked commander and off his roster book. He yelled, "Stop! ... Don't touch me. Take your pay and go." He obviously was trying to decide whether there was any specific military justice code that could be used in a Court Martial case over flying onions. Next month I'll tell you how I became a member of the Camp Gordon Amateur Radio Club and how I went on a pleasurable week-end trip to Silver Springs, Florida with three hams who were also taking the MOS-1648 course.

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

I just got some news from the ARRL that David Sumner W1ZZ, who has been the honcho there in Newington, is retiring in April. His replacement is Tom Gallagher, NY2RF. Don't get excited by the "2" in his call sign, as he lives in West Palm Beach, Florida. I assume he will be moving to Connecticut, but we will see.

For many years the club has given VE licensing exams on the second Tuesday of every month. For the last couple of years I have been conducting the exams at the Bethpage Community Park Ice Rink, where there are nice meeting rooms (No, we don't need ice skates). Every few months I have to reserve the room in advance, and it was always easy as no one seems to want the rooms before 7 PM on the second Tuesday of the month and we are done by then. However, a few months ago I was unable to get the second Tuesday because someone else had reserved the rooms in the time slot we need, so for the last two months I had to take what I could get. It has been surprisingly upsetting and confusing, and I had problems getting the info to the ARRL, who is the primary source of our test candidates. Well, today it was time to call up and reserve the next few months, and I was thrilled that there was no problem whatsoever getting the time slot I like. It was like a large weight was lifted off my shoulders. I just hope I don't have to go through that again.

Ed, WB2EAV

GRUMMAN AMATEUR RADIO CLUB MINUTES OF GENERAL MEETING / EXECUTIVE BOARD MEETING 1/20 /2016

TREASURER'S REPORT – Ed, WB2EAV

Finances are in good shape.

REPEATER REPORT – Gordon, KB2UB

Repeaters are working.

VE REPORT – Ed, WB2EAV

No applicants applied.

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.

NEW BUSINESS:

Newsletter Mailing:- Ed, WB2EAV will forward the newsletter to the printer for repro in Farmingdale. Jack, WA2PYK, will pick up newsletters and mail them from the Post Office on the same day.

MEETINGS

Board Meetings of the GARC are held on the 3rd Wednesday of each month, starting at 5:30 PM they are combined with General Meetings that start at 6:15 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 now held after general meetings. *Meetings may be cancelled or relocated. Check the GARC 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. The membership roster has not been updated to delete Silent Keys and to enter new e-mail addresses for remaining members and friends.

The Man Who Defined Artificial Intelligence Has Died

Marvin Minsky died last Sunday in Boston at the age of 88. I read his book "The Society of Mind" soon after it was published in 1986 and saw his controversial PBS TV interview. I knew that Minsky was a genius because while he was at Princeton he did not visit Einstein; No, Einstein came to visit him. In 1958 Minsky joined MIT and with John McCarthy, defined artificial intelligence (AI) as we now define it. In 1958 there were calculators, but microprocessors, high speed clocking, thin film RAM and the internet were not yet perfected. Minsky knew that it would be a waste of time to teach kids arithmetic by rote when they could use pocket calculators. Minsky understood that young children have a time window when they can quickly learn to speak the language of their parents and lean to walk and run upright on two feet. He said that that time period should be used to efficiently teach CONCEPTS rather than useless stuff:- Concepts that help to recognize that the same amount of water can be stored in a tall narrow glass as in a short wide glass; Concepts that recognized 3 D solids from 2 D drawings; Concepts that realize density is mass per unit volume; Concepts that could be best learned by play with everyday items, or building blocks. He believed that it would be possible to build a robot that could speak and mechanically walk like a human but that would not be AI. It would only be an example of a complex follow-up servo system. When asked if a computer could beat a chess master Minsky said yes it could but that would not be AI because the game of chess has a finite number of moves and a finite number of possible scenario strategies. As the speeds at which computers can operate increase they will have the time to investigate more probable moves and more possible scenarios much faster than a human can, but that would not be AI. It would be only number crunching. To define AI, Minsky knew that he would first have to get a handle on human intelligence. Human brains rely on feelings and emotions that are lacking in business machines. Minsky's "Society of Mind" is a large 8.5 X 11" softcover; more like a lab workbook than a textbook. When I was taking a psychology course at Dowling College in 1995 as a requirement for an MS in Ed the professor mentioned Minsky. He hadn't read Minsky's most famous book, so I lent it to him. I still have the book. Minsky's belief that digital information in all forms should be shared freely was developed in his MIT lab, as part of the original ARPAnet which evolved into today's Internet. Minsky was the first to realize the benefits and risks of an internationally open Internet. A worldwide Internet would have a group intelligence that exceeds the intelligence of individual humans just like a large ant colony has a mass intelligence that exceeds the instincts of any one ant. Minsky's opinions were sought by scientists, including Richard Feynman, and Bill Gates, as well as science fiction writers such as Isaac Asimov. Minsky advised Stanley Kubrik on the production of the 1968 movie "2001: A Space Odyssey". To explore AI, Minsky had to be a scientist, an inventor, a writer, a philosopher, a roboticist, a poet, a musician, and a psychologist. Minsky had to study human nature. All Armies are taught to march to similar drum beats so that they can be group controlled. Minsky was awarded the Turing Award in 1969 which is the highest Academy Award of computer science. "Time" magazine's Feb. 8th issue gave less than 1/3 of a page to eulogize the death of Minsky but more than 7 full pages to observe the evolution of the Barbie Doll. Minsky preferred to have kids play with blocks. Blocks are OK for all kids of any sex. He also liked DIY Heathkits. Barbie dolls are for adults.

PUZZLE

This month's question is:--

What is one common use for PIN diodes?

- A. As a constant current source
- B. As a constant voltage source
- C. As an RF switch
- D. As a high voltage rectifier

Last month's question was:--

What determines the velocity factor in a transmission line?

- A. The termination impedance
- B. The line length
- C. Dielectrics in the line
- D. The center conductor line length

Answer: The correct answer is C.

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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 rwxelbaum@verizon.net. 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.

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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 - Technician, Element 2, General Element 3, and Amateur Extra Class, Element 4. Time and location may be changed, and sessions may be cancelled if no applicants make appointments. The fee for 2016 is \$14. All applicants must pre register with Ed Gellender wb2eav@yahoo.com. All new applicants should be aware that they must write their Social Security number on the application form if they have not gotten an FRN number. Applicants for an upgrade must bring both their present license and a photo copy of it. All applicants should bring picture ID such as a driver's license. Study material may be obtained from ARRL-VEC at <http://www.arrl.org>, W5YI-VEC at <http://www.W5YI.org> or other VECs. All VECs use and update the same Q&A pools.

Editorial

Those of you who are members of the ARRL have received the news about the new ARRL CEO who will succeed Dave Sumner K1ZZ, effective April 2016. He is Tom Gallagher, NY2RF. You can read NY2RF's resume if you receive it in an ARRL bulletin or in QST. Although he began his commercial career as a technician and cameraman for commercial broadcasting stations, Tom Gallagher spent his most recent years as an international investment and financial service banker. He holds an MBA from Warton. Do you know what other famous people are alumni of that school? It seems to me that the ARRL is presently becoming more of a commercial profit making enterprise than a voluntary amateur not-for-profit service organization. The ARRL will be raising the dues and hiring more professional types. They are now publishing an entirely different Antenna Book, which is slated to explain antenna theory based on "real physics" rather than cheerful ham mythology. That would be a plus in my opinion; however I believe that Hiram Percy Maxim, who was a founder of the ARRL and the IARU would not have approved of his *Amateur* Radio organization being run by a man whose forte was being a *Commercial* banker. At the Des Moines, Iowa Democratic caucus last night, most potential delegates were wearing shirts that indicated who they were for. A news reporter pointed out a man who was wearing a Bernie shirt and is an FCC Commissioner! Wow!...I'll say no more.

Happy Groundhog's Day and Valentine's Day y dias de todos los santos and politically correct orthodox and conservative praying walls. The President of Iran has visited the Pope and gotten blessed! Who is next?

VY 73 AR K,

Bob w2ilp (Independents Lack Publicity?)...The media is the message...whenever it can be used by and for the public interest and convenience (PICON)...I think...

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CLUB DUES ARE DUE

For those who have not yet paid their 2016 GARC dues, please remember to send a check to the address above. Basic annual dues are \$20, \$25 for a family sharing the same address, and \$10 for retirees living out of the area. Please make checks payable to Grumman ARC.