

CQ de WA2LQO

Seventy Three Years: 1944 -2017

The official independent voice of the Grumman Amateur Radio Club.

May 2017 VOLUME 90 NUMBER 5

**MEETINGS ARE HELD ON THE 3RD WEDNESDAY OF EACH MONTH
STARTING AT 5:30 PM AT THE ELLSWORTH ALLEN PARK IN FARMINGDALE
The May 2017 meeting will be held on May 17th.**

How Ham Radio prepared me to be an Engineer

by Bob Wexelbaum, W2ILP

(Continued from April 2017)

When I mustered out of the US Army at Fort Dix, NJ and officially became a civilian, I had to attend a separation ceremony. I was ordered to never speak publically or write about anything I had witnessed during my tour of duty in Korea. This was important because, although I had made friends as well as enemies with many fellow soldiers, I was not supposed to divulge anything about their personal activities or opinions with anyone. I took this as good advice at the time and I promised myself that I would never publically leak information about bad stuff that I witnessed in Korea or what had been permitted by informal military policies that existed in Korea. This meant that I could not whistle blow about stuff that was obviously not ethical or did not comply with official government policy. I could not tell about specific events, like the suicide of a fellow soldier, the killing of Korean trespassers by Army guards, the accidental deaths of US soldiers while sleeping with Koreans, the sicknesses that soldiers got, and stuff like that. I could not mention the names of those involved. This made lots of sense at that time because most of the GIs who had been involved and/or their families were still alive. Bad news that had to be sent home to families and loved ones had to come from official government sources or from the Red Cross, not from fellow soldiers.

I was very glad to be leaving the Army at that time. I was eventually given an Honorable Discharge after being available to serve in the Army reserve for the next 6 years. I was given an Honorable Separation paper at that time of the separation ceremony that said that I had earned a Korean Service Medal, a Good Conduct Medal, a UN Service Medal and a National Defense Medal. One soldier was actually presented with his real medals at the ceremony, as a symbol of all of the medals that we all had earned, but the rest of us were supposed to apply later for the actual medals and have them mailed to us. I never did apply, nor will I ever apply for mine. I did not feel that I deserved them at that time nor do I feel that I deserve them now. I had been in a combat zone. We remain at war with North Korea. We only had a "temporary" cease fire agreement. That cease fire agreement still exists today. Many GIs have served in South Korea since I did. The living conditions for both US military and South Koreans have vastly improved since I was there but the danger of military action may be much greater at the present time. At the time I was there no American dependents were permitted to visit Korea. It was expected that if the Koreans could not unite on their own by negotiating the US would start the war again. I think that the US, with the help of the South Koreans, would have been able to defeat the North Koreans at that time. We had the bombers and the A-Bombs. Were it not for the urgency to send troops to Viet Nam the US would have risked fighting to unify Korea. The North Koreans now have been demonstrating missiles of longer and longer ranges and may now be ready to arm them with nuclear warheads. The US has now built defensive missile bases within South Korea. You can read about it in the newspapers.

That being said I want to tell you about the good GIs that I served with. I learned a lot of good technical and social stuff from them that, like ham radio, prepared me to be an engineer. When I asked if there were any hams in the Radio Shop I was introduced to Richard M. He was from California and could fix anything. He could never explain what his troubleshooting methods were, just as he could play any stringed musical

instrument without explaining how he had learned to do so. I was told that BC-610s and all the HF stuff in the RTTY huts was taken care of by a ham who was seldom present in the Radio Shop. He was usually off post with his Korean girlfriend who he was in the process of marrying. The procedure for marrying a Korean was very difficult. This guy was from Florida. He had divorced his American wife and returned to Korea for several tours of duty. The next ham I met was Frank G. I approached him bragging about how I was an Advanced Class Ham and he acted very humbly. When I got to learn more about Frank I soon realized that he was much more experienced than I. Frank's job at the Signal depot was to see that all the test equipment was calibrated according to military regulations. Only Frank could put stickers on equipment to certify it was calibrated properly and up to date. I was 20 years old at that time and Frank was 28. He was from California. As a radio operator on cargo ships Frank had visited many ports including New York City and Sydney, Australia. He was hoping to return to college to finish earning an EE degree. He had joined the Army to get practical technical experience.

I was assigned to live in a large tent and sleep in the lower bunk of a two tiered bed. The tent had a potbellied stove in its center that was surrounded by a sand filled base. Frank G. lived in that tent and the remaining occupants were all radio or radar technicians. It turned out that our tent quartered the most intelligent GIs of the 181st Company. On the first evening that I was there one of the men asked if there was anyone who wanted to play chess. He was Monte B. Monte turned out to become my closest friend. We were not very good chess players, but at least we knew the rules and were equally matched.

The 181st Signal Company consisted of two types of GIs. There were a total of about 300 men, including about 30 KATUSAs. About half of the men were technicians who had gone through a signal school and/or had industrial experience. The remaining half of the men had been assigned to our company because they had training as military police or were sent to Korea after having been released from the Stockade (military jail) in the US to get rehabilitated. The primary mission of our company was to have the technicians work in the shops, while the remaining men perform guard duty and do heavy warehouse lifting and stocking tasks. It didn't exactly work that way; Some of the men were alcoholics or suffering drug related disabilities and could not be trusted to serve as guards with loaded weapons. So, the lower ranking technicians, including me, had to do most of the guard duty. (to be continued)

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

I can't think of anything ham radio related, so let me tell you about something I am doing at home. My upcoming job assignment start date was delayed, so I now have spare time to finally rework the deck behind the kitchen. The support structure of the deck is sound but the deck surface is old and unsightly, and the railing and stairs which never were too robust are completely shot.

To do the work I realized that my Black and Decker 20V Lithium-battery-operated 3/8" drill and 5" circular saw are not quite robust enough for what I need done, so I started making regular visits to the local Home Depot and Harbor Freight store in Huntington. It has gotten to the point where the employees at both places recognize me. At Harbor Freight I bought a 1/2" drill with a handle for weak-hand support and a hefty 7" circular saw with a laser guide. I was skeptical about whether the laser was actually useful ... until I started using it. Now I am impressed. The laser projects a line (as opposed to a dot), and if you match it to a line drawn across a board, the saw will cut it exactly where you want. Nice. The deck surface is about 4 feet above the ground, with planks supported by vertical 2x6 joists every 2 feet. Those in turn are supported by pair of vertically oriented 2x6's with 8 foot spacing. The old handrail supports were simply nailed to the single 2X6's, which I never felt comfortable with. I decided to instead use 4x4s, up from a concrete base on the ground, bolting it to both levels of joists where they cross, and then on up to support the railing. This adds additional support for the deck itself as well as providing solid support for the railing. Drilling 7/16" holes through 6 or 8 inches of wood (a 4x4 plus either one or two 2x6s) requires some heavy-duty drilling. I decided not to get the requisite 7/16" by 12 inch drill bit at Harbor Freight, and splurged on a brand name bit; Good investment - I was pleasantly surprised how easy it is to drill those holes. Trimming the 8-foot 4x4s, however, is a challenge for even the heavy 7 inch circular saw, requiring multiple passes.

I am so proud of myself for being able to handle this heavy-duty stuff. Somehow at this stage of my life I have become a construction worker. Weird.

Ed, WB2EAV

**GRUMMAN AMATEUR RADIO CLUB
MINUTES OF EXECUTIVE BOARD/GENERAL MEETING 4/19/2017**

The meeting was opened by Gordon at 5:30 PM.

TREASURER'S REPORT – Ed, WB2EAV

Finances continue to be in good shape.

REPEATER REPORT – Gordon, KB2UB

Repeaters are working.

NET REPORT – Karen, W2ABK

Storms had damaged antennas that needed to be repaired for the Sunday Morning 7.289 MHz net.

Thursday night net at 8:15 PM on 146.745 MHz had 0 check in

Thursday night net at 8:30 PM on 145.330 MHz had 2 check ins.

VE REPORT – Ed, WB2EAV

Two applicants applied for the Technician Class exam and passed.

Three VEs were present: Ed, WB2EAV, Bill WB2QGZ and George WB2IKT

GARC NETS: Net Controller Karen W2ABK 40 Meters: 7.289 MHz at 7:30 AM EST Sundays

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.

ARES/RACES NETS: Mondays.

PROGRAM

Gordon KB2UB brought in his new MFJ digital SWR/Watt Meter. It is small, compact and efficient.

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. Please inform Pat Masterson if you need to delete, update or edit your roster information.

MEETINGS

Board and General Meetings are now combined. Unless otherwise notified they start at 5:30 PM at the Ellsworth Allen Park in Farmingdale.

SUGGESTION from w2ilp

The Radio Frequency of our Sunday net was chosen at a time when many GARC members did not hold Advanced or Amateur Extra licenses and were not permitted to operate in the lower part of the 40-Meter phone band. All present members who may be interested in operating on 40 Meters now hold Extra Class licenses, so there is no need to continue running our Sunday net on 7.289 MHz, where there is excessive noise and sometimes a foreign AM broadcast carrier. A lower frequency would be advantageous. There are lots of nets on Sunday mornings but it would not be difficult to find a clear frequency to run ours and we might probably get more guests to sign in and give signal reports because more hams listen at the lower part of 40 Meters. Just a suggestion.

PUZZLE

There was no new puzzle in the April Newsletter.

Here is a new puzzle for this month:

When your lip touches a metal part of your microphone you feel a tingling sensation which tells you that it is not at RF ground. What is the best way to be sure that your transceiver's ground is RF ground?

- A. Use heavy copper braid to bond all your equipment together.
- B. Move your station to the basement of your home.
- C. Use a balanced antenna system.
- D. Connect your transceiver chassis to a cold water pipe.

Numbers? Constants? Atoms? Waves? Quantum?

(Continued from March 2017)

I again continue the chronology of significant physics discoveries, now starting in the year of 1990

1990 Jerome I. Friedman, Henry W. Kendall and Richard E. Taylor are awarded the Nobel Prize for their pioneering investigations concerning deep inelastic scatterings of electrons on protons, which have been of essential importance for the development of the quark model in particle physics.

1991 Pierre-Gilles de Gennes is awarded the Nobel Prize for showing that order phenomena in simple systems can be generalized to more complex forms of matter, in particular to liquid crystals and polymers.

1992 Georges Charpak is awarded the Nobel Prize for his invention and development of particle detectors, in particular the multi-wire proportional chamber.

1993 Russel A. Hulse and Joseph H. Taylor Jr. are awarded the Nobel Prize for the discovery of a type of pulsar that seemed to open possibilities about the nature of gravity.

1994 Bertram N. Brockhouse was awarded the Nobel Prize for the development of neutron spectroscopy. Clifford G. Shull was awarded the Nobel Prize for the development of the neutron diffraction technique. Both of these men had made pioneering contributions to the understanding of neutron scattering techniques for studies of condensed matter.

1995 Martin L. Perl is awarded the Nobel Prize for his discovery of the tau lepton. Frederick Reines is awarded the Nobel Prize for the detection of the neutrino. Both men contributed to pioneering lepton physics.

1996 David M. Lee, Douglas D. Osheroff and Robert C. Richardson are awarded the Nobel Prize for their discovery of super-fluidity in helium-3.

1997 Steven Chu, Claude Cohen-Tannoudi and William D. Phillips are awarded the Nobel Prize for their development of methods to cool and trap atoms with laser light. A team at the University of Innsbruck led by Anton Zeilinger reports that it has succeeded in transferring the quantum state of a particle from one place to another – in effect teleporting it. An integral part of the process is the phenomenon of quantum entanglement. A group at Rome University led by Francisco DeMartini also successfully carries out quantum teleportation.

1998 Robert B. Laughlin, Horst L. Stormer and Daniel C. Tsui are awarded the Nobel Prize for their discovery of a new form of quantum fluid with fractionally charged excitations.

1999 Gerardus 't Hooft and Martinus J. G. Veltman are awarded the Nobel Prize for describing the quantum structure of electro-weak interactions of physics.

2000 Zhores I. Alferov and Herrbert Kroemer are awarded the Nobel Prize for developing semiconductor heterostructures used in high-speed and opto electronics. Jack S. Kilby is awarded the Nobel Prize for his part in the development of integrated circuits. Both men contributed to basic work in the fields of information and communication technology. John Archibald Wheeler and Kenneth Ford publish “Geons, Black Holes and Quantum Foam.”

2001 Eric A. Cornell, Wolfgang Ketterle and Carl E. Wieman are awarded the Nobel Prize for the achievement of Bose-Einstein condensation in dilute gas of alkali atoms, and for early fundamental studies of the properties of the condensates.

2002 Raymond Davis Jr. and Masatoshi Koshiba for pioneering contributions to astrophysics, in particular for the detection of cosmic neutrinos. Riccardo Giacconi is awarded the Nobel Prize for contributing to astrophysics, which have led to the discovery of cosmic X-ray sources.

2003 Alexi A. Abrikosov, Vitali L. Ginsburg and Anthony Leggett are awarded the Nobel Prize for pioneering contributions to the theory of superconductors and superfluids.

2004 David J. Gross, H. David Politzer and Frank Wilczek are awarded the Nobel Prize for the discovery of asymptotic freedom in the theory of the strong interaction.

2005 Roy J. Glauber is awarded the Nobel Prize for his contribution to the quantum theory of optical coherence. John L. Hall and Theodor W. Hansch are awarded the Nobel Prize for the development of laser based precision spectroscopy, including optical frequency comb technique.

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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](mailto:w2eav@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 I belong to the Long Island Life Member Affinity Group of the IEEE. So far I have attended 3 meetings of this group. The Chairman of the group is Donald M. Grieco. I was invited to join by Charles Pleckaitis who is now the Vice Chairman. I first met Charlie while working for Grumman on the EA6B program in Calverton. We both went to work on the J-Stars program in Melbourne, Florida. I got to know Charlie there because we often went to dinner together and salt water surf casted. After returning to Long Island, we eventually got laid off. The meeting of April 27th was to be held at the NYIT Building 500 and to be hosted by Professor Sue Neville, the Chairman of the Dept. of Nursing. Unlike previous meetings this meeting was held at noon time rather than at night so that it would be easy to locate. Just to be sure I had my son David do the driving. As I had attended NYIT myself for 11 years at night to earn a BS degree I thought that driving around the campus would be easy. We entered the area OK but were unable to find Building 500. That is because it was not marked on the road and was behind other buildings. The NYIT Campus was now larger than when I had attended in the 1970–80s. We finally got to building 500 late and could find no IEEE meeting there. Staff members were puzzled when we asked for Professor Neville. She was not there. She had gone to Albany, probably to discuss State aid. Nobody knew about the meeting until some phone calls were made and we learned that the meeting had been moved to another building about 2 miles away. Since they noticed that I was handicapped, a staff member offered to drive David and me there in her own car and to return us to my car which was parked in a parking lot near to Bldg. 500. The lecture was scheduled to end at 1:45 PM so it was agreed that we would be returning at the end of it. The woman who did the driving told us that she was a southerner. She said that she was educated in the South but would never return there because she loved NY. She was quite talkative about NYIT's future. NYIT now has more female students than males in all departments. Back to the meeting itself: Charlie was the main speaker. He is trying to establish IEEE Standards for Electronic Health Records which is a big task because insurance companies, hospitals, doctors, pharmacies, security encryption, etc. are now using different systems. He plans to meet with IEEE Standards committees in NJ. His last job involved programming for the NYC Subway System. Scheduling trains might be easier than scheduling doctor appointments and payments for previously recognized and newer non-standard diseases and cures, as well as older "pre-conditions".

73, Bob w2ilp (Insuring Legal Programs?) Where Standards end new technology begins...I Think. Page 5

FIRST CLASS MAIL
Do Not Delay

Numbers? Constants? Atoms? Waves? Quantum?
(Continued from Page 4)

2006 John C. Mather and George F. Smoot are awarded the Nobel Prize for the blackbody form and anisotropy of the cosmic microwave background radiation.

2007 Albert Fert and Peter Grunberg are awarded the Nobel Prize for the discovery of Giant Magnoresistance.

2008 Yoichi Nambu is awarded the Nobel Prize for the discovery of the broken symmetry in subatomic physics. Makoto Kobayashi and Toshihide Masklawa are awarded the Nobel Prize for he discovery of the origin of the broken symmetry which predicts the existence of at least three families of quarks in nature.

2009 Charles Kuen Kao is awarded the Nobel Prize for groundbreaking achievements concerning the light in fibers for optical communication. William S. Boyle and George E. Smith are awarded the Nobel Prize for the invention of an imaging semiconductor circuit – The CCD sensor.

2010 Andre Geim and Konstantine Novoselov are awarded the Nobel Prize for groundbreaking experiments regarding 2-dimentional material graphene.

2011 Saul Perlmutter, Brian P. Schmidt and Adam G. Riess are awarded the Nobel Prize for the discovery of the accelerating expansion of the Universe through observations of distant supernovae.

2012 Serge Haroche and David I. Wineland are awarded the Nobel Prize for ground-breaking methods that enable measuring and manipulating of individual quantum systems.

2013 Francois and Peter Higgs are awarded the Nobel Prize for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles and which recently was confirmed through the discovery of the predicted fundamental particle (boson) by the ATLAS and CMS experiments at CERN's Hadron Collider.

2014 Isamu Akasaki, Heroshi Amano and Suji Nakamura are awarded the Nobel Prize for the invention of efficient blue LEDs which has enabled bright and energy-saving white light sources.

2015 Takaaki Kajita and Arthur B. McDonald are awarded the Nobel Prize for the discovery of neutrino oscillations, which shows that neutrons have mass.

2016 David I. Thouless, F. Duncan M. Haldane and I. Michael Kosterlitz are awarded the Nobel Prize for theoretical discoveries of topological phase transitions and topological phases of matter.

(To be continued next month)