

CQ de WA2LQO

Seventy Two Years: 1944 -2016

The official independent voice of the Grumman Amateur Radio Club.

DECEMBER 2016 VOLUME 89 NUMBER 12

Merry Christmas

Happy New Year

GARC Holiday Party 5:30 PM December 21-Applebees (Rt 110 Farmingdale)

See details in President's Message on page 2

Information About My Service in Korea

by Jack Hayne, WB2BED

Last month Bob, W2ILP commented about the integration of blacks during the Korean War in this newsletter. This reminded me of my duty in 1950 as a new 2nd Lt. in a black antiaircraft artillery (AAA) battalion. I was assigned to D Battery to command the 2nd Platoon. Another 2nd Lt., George Armitage, who was a Princeton graduate, was in charge, but because I had an earlier date of rank, I became the platoon leader. There is an old army saying that: "Rank among 2nd Lieutenants is like virtue amongst whores." However we got along famously. By the way, at that time the men were referred to as black soldiers and not African American soldiers. This was not the only black unit. There was the 933rd AAA, 555th Field Artillery battalion and the 24th Infantry Regiment in the 25th Division. These units did not integrate until a year or so later. The Commander of the 24th Infantry Regiment was Colonel John T. Corley of NJ. He had one medal less than Audie Murphy and was the MOH. The Battery Commander and Executive Officer were white and raciest. The Lieutenants in the First Platoon were black and one was noted for creating unrest among his troops by telling them that whites were discriminating against them.

The Korean War began on June 25, 1950. Our unit arrived at Pusan on the following August. We moved from the port of Pusan to Taegu on the perimeter. After the September 15th Incheon invasion we moved up to Kimpo Airbase (K-16) and my platoon was assigned to Seoul, to defend the Korean Parliament, President Sigmund Rhee's quarters, and the Eighth Army and Fifth Airforce Headquarters. As the Eighth Army troops moved north to what is now the North Korean capital city of Pyongyang, we were then ordered to advance to an airstrip at Sinuiju (K-29). Around November 25th we were ordered to move still further north to another airstrip (K-30) on the banks of the Yalu River, facing China. After four or five miles I noticed that there were no tracks in the snow, indicating we were well in advance of the Infantry. Enough said...I returned to my command post. That day the Chinese offensive began in that area. Lucky for me.

How Ham Radio Prepared me to be an Engineer

by Bob Wexelbaum, W2ILP

(Continued from November 2016)

Finally we were told that our ship had arrived and we were bussed to the Seattle port from our barracks in Fort Lewis. As we rode on the bus the men were silent. I guessed that each was anticipating the start of our journey with personal thoughts. I began by thinking about the weather in Seattle. We had been unable to see Mt. Rainier most days that it rained or was cloudy but on a few days it cleared and was beautiful. Most significant to me was the unique smell of the forest. Nothing smelled like that in New York. The swamps of Georgia didn't smell like the Seattle swamps either. I supposed that there were different kinds of trees there with different kinds of moss growing on them. My thoughts about the weather might seem unrelated at this time but they were part of my musing that this was the last time I would see or smell the USA for at least 17

months...and maybe...forever. No one ever expected the cease fire in Korea to last for 65 years!

The ship was the MSTS Marine Phoenix. We lined up, officers first, and then the enlisted (or drafted) men in alphabetical order. The officers boarded first as they would be bunked on the top deck, and then it was our turn. I walked up the gang plank with my heavy duffle bag on my shoulder. I almost fell over as I reached the ship but luckily I was given help by an unknown GI behind me, who lifted the back of my bag. As we boarded the ship our names were checked on a roster and we were given our paper orders to report to our individual destinations. It was then that I knew I was to go to the 181st Signal Company in Yong Dong Po, Korea.

On the first day some of the men were seasick but almost everyone was throwing up by the fourth day out, even the seasoned crew. We had to be herded out of our sleeping area and laid out on deck while our sleeping area was being mopped. We had to put our duffle bags on our canvas bunks when we went up on deck. Actually it was nice to rest in the fresh air on deck. We could see the horizon and this would make us feel stable enough to ease our "mal-de-mar". But this was no luxury cruise or fishing trip. Most of us were assigned tasks. Some had to scrape paint or re paint . For others an order came over the PA system, "Sweepers man your brooms." As a lowest ranking trooper, I was assigned permanent KP duty. The soldiers were marched in groups of about 30, three times a day, to eat standing up, by retractable metal tables. It was my job to keep filling up stainless steel coffee urns. The urns had to be placed on dish towels to keep them from sliding off the tables. Metal food trays were the responsibilities of the men...but it was not only my job to keep the coffee on, it was my job to clean the vomit off, the tables. For you see, that by the fourth day at sea most of the GIs puked at the sight of any food. The ship's doctor prescribed a special breakfast on the fifth day. It consisted of corn bread squares and baked beans. We didn't guess what might have been added to the squares and beans but by the fifth day most of us were getting our "sea legs" and able to cope with the rocking environment. The smell down in the birthing area was getting unbearable so we all had to take showers. This was something that most might have wanted to forget. We showered nude. The shower water was unpotable salty water which sloshed into our bunk areas wetting anything that we had hurriedly placed on the floor and spreading foot fungus. This was a dirty mess the first time we showered and only somewhat less of a mess at subsequent shower times. I managed to meet with Sgt. Le Duc at rare times when we both were resting on deck. He had orders to return to his AAA battalion on top of a mountain in a village called Tan Do Chennai. (I'm not sure of the spelling and I can't find any such a town on present day maps of Korea.) It was his job to observe the DMZ and maintain AN/TRC-3 units, which were parts of a telephone "carrier bay" radio relay system. They were VHF FM units that were kept-on-the-air continuously. They were mounted on trucks so that they could be moved if attacked. They connected to 600 ohm wired telephone lines. Some of the phone lines had been installed by the Japanese when they occupied Korea. Others were installed by Korean workers, directed by the US Army. The wired phone lines generally ran north-south and were connected by radio going east-west. [More advanced AN/TRC systems were used in Viet Nam which used microwave dishes.]

(to be continued)

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

Our holiday dinner – instead of the usual meeting – will be on Wednesday evening December 21st at Applebees at Republic Airport Plaza. (SE corner Route 110 and Route 24) in Farmingdale. We will meet at 5:30 PM and just see who comes; at 6:00 PM we will ask to be seated accordingly. Jack, WA2PYK asks interested parties to call him at 516-240-0979 so we can have an idea of how many are coming. It will be pay-as-you-go individual checks. Paid up club members will get \$10 off their food tab. (You may pay club dues at the dinner.)

Club dues are now payable for 2017. The dues are still \$20 (\$25 for multiple members at one mailing address, \$10 for retirees living out of the area). If you wish to mail it in, make checks payable to Grumman ARC and send it to 215 Birchwood Park Drive, Jericho, NY 11753.

It is that time of the year again for my usual reminder that on Sunday, January 8th we have Ham Radio University at Briarcliffe College from 9 AM to 4 PM. It is always a great experience and I recommend it highly. Check the agenda and schedule at their website: hamradiouniversity.org

Ed, WB2EAV

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**GRUMMAN AMATEUR RADIO CLUB
MINUTES OF GENERAL/BOARD MEETING 11/16/2016**

TREASURER'S REPORT – Ed, WB2EAV

Finances are in good shape.

REPEATER REPORT – Gordon, KB2UB

Repeaters are working.

NET REPORT – Karen, W2ASK

Sunday Net at 7:30 AM had 1 check in.

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

No VE Session in November.

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

OLD BUSINESS

The meetings will start at 5:30 PM at the location to be determined.

NEW BUSINESS

The December meeting will be our Holliday Party at Applebees (same place as last year), 200 Airport Plaza Blvd, Farmingdale, NY. \$10 off the bill for paid members.

PROGRAM

Gordon, KB2UB brought in 2 albums from his Alaskan trip. It was beautiful.

MEETINGS

Board/ Generals Meetings will begin at 5:30 PM, at Ellsworth Allen Town Park in Farmingdale.

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 want to update or edit roster information.

PUZZLE

This month's question is:

A loop antenna is:

- A. bi-directional
- B. usually mounted vertically
- C. most often used for receiving
- D. any of the above

Last month's question was:

Why had the leaders of the Quarter Century Wireless Association (QCWA) lobbied congress to restore some phone band privileges to General Class licensees?

- A. Because the majority of the members of QCWA voted to do so.
- B. Because the concept of incentive licensing is against the Part 97 basis and purpose of amateur radio.
- C. Because General Class licensees had lost phone band frequencies due to an incentive licensing plan.
- D. Because all amateurs had lost the use of the 11 Meter band when it became channelized for CB radio.

Answer: The correct answer is C.

Numbers? Constants? Atoms? Waves? Quantum?

When reading Tegmark's book, as well as recent books on the subject of Math, Chemistry and Physics I came to the realization of how little was known about number theory, scientific constants, and atomic structure at the time when I attended high school in 1947 – 1950. Some of it is still being debated by the scientists of today. In a high school geometry class we learned how to prove that when two parallel lines are cut by a transversal the alternate interior angles that are formed are equal...and theorems like that. Next we took a class called Trigonometry. In geometry class we had learned about conic sections (lines, circles, ellipses, hyperbolas, etc.) but we did not measure them with any numbers. Trigonometry is a subject that uses numbers to measure sides of geometric figures and angles that are developed from trig functions (Sin, Cos, Tan, etc.) We learned that pi was a number that could not be expressed accurately without going to infinitely many decimal places to the right of its decimal point. You can understand that soon after the A-Bombs were dropped there would be many atom splitting questions in the physics and chemistry classes. These had been partly explained by theoretical physicists before that day but now everyone wanted to know more about atoms... not just teachers and students but press reporters. Everyone knew that Einstein was some kind of a wizard but few understood that Einstein had only written to FDR saying it would be possible to create tremendous energy by splitting atoms. Einstein didn't know how to actually produce an A-Bomb. His theoretical knowledge was based on the work of many other physicists who had gradually created a conception of what atoms were made of and how the electrons, neutrons and protons that were parts of all atoms on the periodic chemistry chart were believed to be configured. I can attempt to chronologically write about each significant physicist and I will at least tell you about the ones who sequentially defined the atomic structure. Some had to prove their theories by manipulating math and by redefining conventional Newtonian mechanics in the sub atomic area that was verified only after atoms were actually split.. So now I come to our first day in Mrs. Kinkerfuss's trig class where she said, "Mathematics is an exact science." To which my friend, Stanley Milgram made a face and tapped his head in objection. He knew better than to call out in Mrs. K's class. She did recognize him however and asked him why math is not a science. We all knew that Stanley had the highest IQ of anyone in our Honor Class. After Stanley was made to stand in the proper aisle and address Mrs. K in the proper way, he said. "Mathematics is not a science. It is a tool of science. An IQ number is only a human devised test. It is no more scientific itself, than a stethoscope is a heart attack." I think that this may have convinced our trig teacher that unlike geology, biology, chemistry or physics, math was not science. We now know the definition of the scientific term QUANTUM in numerical values. When we had text book problems to work out for homework in college, we often found the answers in the back of the book. Our task was not just to solve for the answers, but to discover how the answers had been calculated from reality. In the study of reality physics we know that atoms of chemical elements do exist in stable states as shown on the periodic table. Experiments were made to discover mathematically how the protons, neutrons and electrons were configured and moved in order to justify their existence. For example, Einstein and others believed that light photons, unlike continuous waves, had mass (weight). He was proven to be correct when light was bent as it neared a large star. The mass of the star was great enough to attract photons which had very tiny masses. Quantum is a term introduced by Max Plank in 1900 to describe individual packets of energy that an oscillator could emit or absorb in his model as he tried to derive the distribution of black body radiation. To make his observations work Plank had to mathematically calculate a constant which turned out to not be a whole integer. It is a number that, like pi, is found in reality so that it can fit all reality problems. Unlike $E=IR$ it began as a theory, not a law but has now been proven correct by many Nobel Prize winning Physicists. The equation: $E = hv$ where a quantum of energy (E) comes in various sizes, v is the frequency of the radiation and h is Plank's constant which has a value of 6.626×10^{-34} joule-seconds. Plank had created his constant to fit experimental observations but he did not initially realize its revolutionary implications. Plank did not believe that energy was actually chopped up into quanta. The very heart of calculus was Boltzmann's technique of reuniting sliced up energy by a procedure that sliced it up into thinner and thinner slices until the slices were zero in thickness and vanished. Unfortunately when Plank did this his formula also vanished. Plank died in 1947 at the age of 89, admitting that we have to live with the quantum theory that he tried to avoid during his lifetime.

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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 rwexelbaum@verizon.net Contributing writers: All GARC members (we hope). To submit articles or ham equipment advertisements contact the editor.

GARC Webmaster

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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

On Nov. 22nd I attended a meeting of the Long Island Life Member Affinity Group. It started at 6:00 PM in LIU Post in Lorber Hall. My son, Dave, drove me there because I do not trust my eyesight for night driving. We did not know where Lorber Hall was located and spent a long time climbing up hills from parking lots in the bitter cold until we could get there. I was eager to get to this meeting because I knew that some of my old friends who had worked at Grumman would be there. To be a Life Member of the IEEE one must add his age to his time of IEEE membership (or one of its predecessor societies) and the total must be 100 years. Life Members are not required to pay membership dues. They can form social groups as well as volunteer to mentor students who are taking STEM (Science, Technology, Engineering and Mathematics) courses. Each of the members who attended spoke briefly about their own education and work histories. A few had worked at Grumman and a few had become interested in engineering as hams. I had a lot to say about my history. I was stopped because I wasn't as brief as the others. You can see by this newsletter that I find it hard to shorten my long stories.

I noticed that members of the ARRL in the Hudson Division were sent e-mails via ARRL addresses that appeared to be originated by Dianne Ortiz, K2DO because the sending address ended in /dianne ortiz. They were not sent by Dianne. They contained Trojans. These e-mails were recognized by security suites and eliminated. I hope that everyone had security software that eliminated Trogon carriers which can be generated to anyone that they communicate with. I have alerted the ARRL about this situation but have received no response. ENUF SED. Like any type of malicious interference perhaps it is initially best to ignore it..

Enjoy a happy holiday season and a prosperous and healthy new year for everyone.

VY 73 from Bob w2ilp and family to all of you and yours. (I Like Peace) and good will to all whose lives count.

Grumman Amateur Radio Club
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Jericho, NY 11753

FIRST CLASS MAIL

Do Not Delay

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

While I was researching these topics I came across an important Physicist who is not yet included in the below chronology. His interest in Quantum Physics began when he was an amateur radio operator (ham?). Do you know who he was?

I had forgotten much of what I had learned about physics in college. Reading books on this subject has brought me up to date, at least to this significant time line for the most important discoveries. I had promised to send you a chronology last month so here is the beginning of it.

1893 Wilhelm Wien discovers the displacement law for black body radiation.

1895 Wilhelm Rontgen discovers X-rays.

1896 Henry Becquerel discovers that uranium compounds emit unknown radiation that he calls 'uric rays'.

1896 Wein publishes a distribution law for black body radiation that agrees with available data.

1897 J.J. Thomson announces the discovery of the electron.

1900 The breakthrough of Wein's distribution law is confirmed beyond any doubt in the far infrared spectrum.

1900 Plank announces his blackbody radiation law but does not recognize quantum as being more than a trick.

1905 Albert Einstein's paper on the existence of light quanta and the photo-electric effect is published.

1905 Einstein's paper on explaining Brownian motion is published.

1905 Einstein's 'The electrodynamics of moving bodies'; outlining his special relativity theory is published.

1905 Einstein writes a thesis entitled "A New Determination of Molecular Dimensions" and receives a PhD.

1906 Ludwig Boltzmann commits suicide.

1906 Einstein's paper on the thermodynamics of specific heat is published.

1909 Einstein lectures about the next stage in theoretical physics that he says will bring about a total theory of light as a sort of a fusion of wave theory with the emission theory of light.

1911 Rutherford announces the discovery of the atomic nucleus.

1911 Niels Bohr presents a thesis on the electron theory of metals to receive a PhD.

1911 At a conference in Brussels Einstein, Plank, Marie Curie and Rutherford are among the participants.

1912 Bohr begins working in Rutherford's lab.

1913 Bohr hears about Balmer's formula for the spectral lines of hydrogen; a clue to developing the quantum model of the atom. He publishes a paper about the hydrogen atom and lectures about it in a British conference.

1914 The Franck-Hertz experiment confirms Bohr's concept of quantum jumps and atomic energy levels.

This chronology must be continued in future issues to bring it up to recent discoveries.

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