

# CQ de WA2LQO

**Seventy Two Years: 1944 -2016**

*The official independent voice of the Grumman Amateur Radio Club.*

**NOVEMBER 2016 VOLUME 89 NUMBER 11**

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**GARC Meeting is 5:30PM Wednesday November 16 at Ellsworth Allen Town Park in Farmingdale**

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## **How I Got to West Point**

**by Jack Hayne, WB2BED**

*Last month there was an article by Jack that told that he had been drafted into the Army and also told that he had graduated from West Point to become an Army officer. Because of those facts, I asked Jack to explain how it happened. Jack then replied to me with the following information. It was received too late to be included in last month's newsletter; so here it is --w2ilp--*

Before I was drafted into the Army I was a machinist apprentice in a Small Arms R&D Machine Shop at Aberdeen Proving Grounds, MD. I then was employed as a 1<sup>st</sup> Class Machine Operator at Glen L. Martin, making parts for the PBM3, PB4M, B-26 and two other Martin aircraft.

When I was drafted in May 1943, I served in the Coast Artillery/Antiaircraft, the 95<sup>th</sup> and 89<sup>th</sup> Infantry Divisions in their field artillery battalions in the USA. I then put in for an appointment for West Point and received one from Congressman Cellar (NY). All appointees were sent to Fort Henning, GA for training in the US Military Army Preparatory Unit (USMAPU). Our course was the same as that given in Officers Candidate School (OCS); live ammunition, mortars, flame throwers, machine guns, etc....best training in the Army. On June 15, 1945 I was discharged from the Army and sent to West Point.

Jack Hayne, WB2BED

## **How Ham Radio Prepared me to be an Engineer**

**by Bob Wexelbaum, W2ILP**

*(Continued from October 2016)*

After finally picking up my duffle bag I had my fatigues and was available to do all the working stuff that army grunts can be assigned to do in addition to the usually daily dozen exercises that are required to keep us fit. While we were waiting for our ship to come in we had to be kept busy. Our entire company of about 300 men was marched to a large parade field, given plastic buckets and ordered to pick up "everything that doesn't grow." A collection of cigarette butts, napkins, dead leaves, etc. was soon completed. Not having used up "busy work" time we were then ordered to search the same area for pebbles that were less than 2" round. This took longer than the first quest. The following day we were ordered to evenly distribute the pebbles and stones over the area where we had collected them so that we could spend time picking them up again on a future day. This was the Army way of keeping troops busy when there was not enough kitchen (KP) duty or painting to assign. One day Sgt. Le Duc had to choose a crew of five men to do something different. I was one of them. We drove to the off base home of a young Lieutenant, who had recently moved to Fort Lewis with his family. We were ordered to help unpack boxes of clothing and household articles and put them where the officer and his wife wanted them to go and then to clean their entire basement. We were closely watched to see that we didn't take anything. Officers are taught never to assume that enlisted grunts are honest. I was taught that when in the CCNY ROTC. I didn't like the way we were being ordered to work by the officer and his wife. They never smiled and gave no verbal thanks for our efforts. After the work was completed Sgt. Le Duc told me that it was illegal for officers to use army troops to do private work. I asked him, "Why didn't you stop us

from doing the work?” The Sgt. answered, “When you are given an order in the Army, you do it first and complain about it after it is finished. By that time you usually don’t trouble to make a formal complaint if it is trivial.” I asked about how the officers treated the men overseas. Le Duc said “Overseas everything is different. It isn’t the same as stateside; things don’t go according to the book, especially in a combat zone. Officers have different personalities overseas. Some treat their men with great kindness, understanding the stress that all are under. Some are afraid that their men would shoot them if they abuse their privilege to control all on-duty and off-duty “activities”. Some are afraid of higher ranking officers, and what they call the IG (Inspector General) who can have them court-martialed for exceeding their authority in ways that are seriously against regulations. On the other hand, some are sadist idiots who enjoy using the power of their rank to torture their troops. Everyone who starts out with mental sickness seems to have it amplified when overseas. When people have no big problems they usually get better for their military experience. No matter where you work or where you live as a civilian you will not get the kind of experience you get when overseas in the Army. There is no privacy, freedom or democracy because you don’t go home after your work is finished. You can’t bring your dependents to Korea, but many GIs do manage to live off base with the Koreans during off duty time. That is not encouraged; It might be dangerous. But the freedom to allow for it can’t be denied. In WW2 there were many Black soldiers in segregated Black divisions, but in Korea the military services are completely integrated, with black GIs in every company for the first time. You will witness how well this works. There weren’t many Blacks in New Hampshire so integration was new for me, but I have worked with Black officers and men in Korea with no serious problems.” (to be continued)

#### **PRESIDENT’S NOTE by ED GELLENDER, WB2EAV**

Be sure to save two dates. The club holiday party will be held in lieu of the usual meeting at 5:30 PM on Wednesday December 21<sup>st</sup> at Applebees on Rt 110 near Republic airport. Details and directions will follow next month. Also, Ham Radio University is coming up Sunday January 8<sup>th</sup>. It is always a good experience.

A couple of years ago, Northrop Grumman started something called “lunch and learn” where one day a month employees could go online at their desks or in a conference room and see a presentation about some work being done by the company. I attended one or two, but was not impressed. The ones I attended were OK, but the others simply looked deadly boring. One day, one of the managers told a few of us that the guys on the west coast were monopolizing these presentations, while bad-mouthing the silence from New York. He then asked if anyone wanted to take on such a challenge, and I said I would be interested. I had been working on the IFF interrogator on the E-2D for years and found it fascinating. I got the idea to do a presentation on the entire field of radar identification for both military and commercial air traffic control ... past, present and future. He said it sounded excellent and I should plan to do so. A month later he told me I was on in a few weeks. When the day came, the attendance in Bethpage was impressive, as everyone I knew came out to watch the impudent upstart take on the establishment. I have to say that it was an absolute thrill doing it, and I enjoyed it immensely. Everyone was fascinated, and the feedback was that this was by far the best one ever. I heard that the west coast crew was strangely silent.

There is a local IEEE affiliated group, the Long Island Consultants Network (LICN) that offers continuing education presentations, critical for professional engineering license renewals, and I avail myself of it. (I confess, I have become a CEU whore.) Problem is I am not a consultant...and cannot actually join the group to support their helping (and feeding) me. So, I am a regular “guest,” and to make up for my being a leech, I offered to present a modified version of my IFF presentation to their group. Again, it was wildly successful and I had a real hoot doing it. Now I was hooked. To feed my habit, last winter I prepared another presentation about redundancy in high power distribution (based on what I did at work last year), and that one was great too. About two years ago I wrote something on the history of radio receivers and just did a third highly successful presentation on that subject for LICN. I am really enjoying them, and quite pleased how it has been working out.

Ed, WB2EAV

## **GRUMMAN AMATEUR RADIO CLUB MINUTES OF GENERAL/BOARD MEETING 10/19/2016**

The meeting was called to order by Ed at 7:00 PM.

### **TREASURER'S REPORT – Ed, WB2EAV**

Finances are in good shape.

### **REPEATER REPORT – Gordon, KB2UB**

Repeaters are working.

### **NET REPORT – Karen, W2ABK**

Sunday Net at 7:30 AM had 0 check ins.

Thursday night net at 8:15 PM on 146.745 MHz had 1 check in.

Thursday night net at 8:30 PM on 145.330 MHz had 0 check ins.

### **VE REPORT – Ed, WB2EAV**

One applicant applied for General exam and passed.

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

### **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**

The 2016 Holliday Party will be held at Applebees (the same place as last year), 200 Airport Plaza Blvd. Farmingdale, NY.

### **NEW BUSINESS**

Discussed new meeting time and place.

### **MEETINGS**

Board/ General 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**

*Last month's question was:*

Which frequency band is shared by radio amateurs and WiFi users?

- A. 21 MHz
- B. 47 GHz
- C. 250 GHz
- D. 500 GHz

*Answer:* The correct answer is C.

*This month's question is:*

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.

## A BOOK REPORT (continued from October 2016)

*I am continuing here to comment about Max Tegmark's book, "Our Mathematical Universe – My Quest for the Ultimate Nature of Reality." and to muse about quantum mechanics in general.*

At the beginning of Chapter 6, which is titled "Welcome to the Multiverse" Tegmark says that the Level 1 Multiverse is based upon a concept which asks if there is another copy of you reading his book and deciding to put it down without finishing a sentence, while you're reading on? I might also ask if there is another clone in another universe for each reader of this newsletter who is not interested in reading any more, while you read on? In my humble opinion it is very egocentric to say that the human inhabitants of Earth may create parallel universes every time that they decide to do or not to do something that requires a mental decision. Earth is a planet in at least one universe. There are likely to be many billions of planets. What gives us Earthlings the power to generate more universes every time that we need to make selections? Tegmark tells us that there are four levels of parallel universes: - Level I = Inflation; Level II = Inflation + landscape; Level III = Collapse – free quantum mechanics; Level IV = External reality hypothesis. In order to understand what this means you could read books that define the Big Bang theory, the birth of "our" universe and "Inflation" and "Collapse", which were accepted by most physicists before Tegmark began his own theoretical mental experiments. I can't understand why Tegmark calls this book a mathematical quest for the nature of reality because I see it as a non-mathematical quest for an escape from the reality of "our" universe to the debatable uncertainty of the existence of parallel universes. Tegmark builds his theories on those of Schrodinger. He tells us about Schrodinger who was a non-conforming libertarian. Schrodinger was not Jewish but he resigned from a Nazi physics laboratory when Jewish assistant physicists were "taken away". He applied to be a lecturer at Princeton, just as Einstein had done, because he wanted to live in America, "the land of the free"... but when he sought living accommodations for two wives, one which he was legally married to and another who was the mother of his child, he was rejected ... "Land of that not yet so free" he thought. So why do I mention this? A person who frees his mind from conventional norms is possibly more likely to come up with exotic theories than the average nerd. Tegmark seems to be even wilder than Schrodinger was, so I'll now give an example of how Max Tegmark defies what we all learned from Boole and tries to dance around what some may have learned from the French mathematician Emile Borel. Here is Tegmark's first experiment: It at first requires the use of a single playing card with a sharp edge. [A coin is not used because it might stay balanced because of its thick rim.] The card is held by its top edge perfectly balanced and until it is released and allowed to fall. It may fall face up (he used a Queen of Hearts in the book illustrations) or it may fall showing its backside. The logic laws of Boole, which determine all the Nand and Nor digital logic gates in all digital computers is a logic of sets and classes that in my opinion may not be disputed. A flip flop element can be in only one state at any one specific time but Tegmark says that if it is in the "1" state or in the "0" state it is always also in the opposite state in another universe at that same time! Heads...I may win here... but don't worry because Tails win in another universe. Too bad that we can't get to that other universe to collect our losses. In the G&S operetta, "Trial by Jury" we hear that "In the reign of James the Second it was generally reckoned to be quite a serious crime to marry two maids at a time". Gilbert wrote that only one legal wife has been recognized here by civil law and most religions, except for a few polygamist Mormon Later Day Saints. I suppose it is OK to have another level IV wife if she permanently stays in another time-space universe and you don't claim her as an income tax exemption here. I don't know of any laws that prohibit inter-universal marriages...or any shops where grooms of such marriages won't be served. So let me review the concept of QUANTA and the fact that when hams transmit continuous waves (CW) they are also transmitting packets of ENERGY. When Heinrich Hertz was experimenting with spark gap transmitters (just like the ones that had been demonstrated at some GARC meetings) he discovered something interesting that began to lead to reality discoveries that would shake the established physics beliefs and lead to Einstein's Nobel Prize winning photoelectric theory. Hertz observed the photoelectric effect in 1887, while experimenting with spark gap generated electromagnetic radio waves. He noticed by chance that the sparks between the two metal spheres became brighter when one was illuminated by ultraviolet light. Hertz could not explain why this was so. He believed incorrectly that this only happened when UV light was used. (continued on Page 6)

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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 – 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: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**

Mike Lisenco, N2YBB sent out an e-mail to ARRL members of the Hudson Division asking for historical information. Mike wants to acquire stuff that would help in his desire to recount ham radio activity here in the Hudson Division (NY, NJ). This also parallels the development of radio technology by industries in our area. I replied to Mike telling him that I have lots of publications, magazines and papers that may be of interest. The trouble is it is not organized. I can't find some stuff myself that I know is somewhere in two rooms of my home that have stuff on bookshelves, cabinets, closets and bags on the floor. Much of it is obsolete catalogs. Today engineers don't need to collect catalogs. They can read them on internet sites. The radio amateur handbooks themselves show the evolution from vacuum tubes and relays to transistors and digital logic and on to LSI and microprocessors. IEEE historians write about such history in our area in the "Pulse of LI" which is not always accurate. They don't seem to read the stuff that was published in the IRE (Institute of Radio Engineers) pubs at the time when most radio engineers who could manage to learn the Morse Code were hams. The IEEE was formed by merging the AIEE with the IRE. Today none of the officers of the IEEE hold ham licenses and few are old enough to remember the astounding news in the then young world of radio electronics when I was an eight year old SWL and WWII began. I am in the process of filtering out stuff that may be of use to Mike. I am a pack rat, who does not throw away stuff that could be of use to me for nostalgic reasons, including stuff that I originated myself in printed e-mails. My wife wants me to dump it all. Sadly stuff that I really need may have been thrown out. My wife is ashamed to invite visitors to our home because of the mess that we have in every room of stuff that I acquired for many hobbies (stamp collecting, model building, art painting, cat raising, wine making, etc.) in addition to ham radio. One of my sons has been helping me to straighten out my papers and move some of it to boxes in the basement and discard some as recyclable trash. At any rate I promised Mike that I would have some of it ready for him by January 2017 and he offered to pick it up.

73 de w2ilp (Investigating Linked Pubs?) My private e-mails did not contain classified data.

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FIRST CLASS MAIL

*Do Not Delay*

**A BOOK REPORT (Continued from Page 4)**

Hertz died at the young age of 36 in 1894. His former assistant, Phillip Lenard, added to the photoelectric mystery by discovering that it also occurred in a vacuum when he placed two metal plates in a glass tube and removed the air and connected one of the plates to a metal tube.

Next month I plan to continue with a different book report. I will start from the beginning and chronologically explain the progress of reality physics and chemistry before the time of Hertz, Einstein...and Tegmark. I want to explain how the strange ideas of Schrodinger, Wheeler and Tegmark evolved and how I could best do so by reading a book called "QUANTUM – Einstein, Bohr and the Great Debate About the Nature of Reality" by Manjit Kumar, which as written in about 2008..

Meanwhile I want to tell about my own experiments when I was a kid in high school and I knew nothing about quantum mechanics or thermodynamics and only some stuff that I was taught about in High School level math, physics and chemistry. I think that I told about building crystal sets, 3 tube radios and a clone of a 30 tube RCA 630TS TV set while I was a high school student. I did not get licensed as a ham until 1951 just at the time when I graduated high school, so I did not emphasize the fact that I had also built a Meissner Signal Shifter (HF VFO with 6 Watt output) from a kit, and an RF power amplifier capable of about 60 watts RF output when I was only an SWL. [Let's say I always used a dummy load rather than an antenna when testing my transmitter.] At that time I was mentored by Lew Pascal, W2LTQ, whose scientific knowledge extended beyond my school teachers and beyond what Lew needed to know as an expert TV repairman. When visiting a wholesale radio TV parts store I found three cheap items that were available in packs of 10. One was NE-2 neon lamps, another was type #47 pilot lamps and a third was 1N34 diodes. Lew told me to buy them because I could do many interesting experiments with them. I found out that I could wire a NE-2 across the input of my NC-57 receiver and it would serve as a protection by blowing up if my antenna was hit by lightning. I also found that it could be used to test for AC line voltage when connected using a 200Kohm resistor in series to limit current. The #47 lamp was used in most 5 tube radios to light their dials. The 1N34 was not much good for crystal set receivers because point contact galena detectors were more sensitive but it was best for making RF wave-meters that use a circuit that was like a crystal set and could use plug-in coils borrowed from my regenerative receivers. By holding an NE-2 in my hand near the plate cap of the 807 tube of my RF power amplifier or the plate cap of the horizontal output amplifier tube it would light mysteriously, detecting ENERGY. Using a #47 instead of earphones, my wave-meter indicated detected RF WAVES. It was then that I knew that both existed without understanding anything more complicated about Maxwell or Einstein. 73-w2ilp ( I Like Physics) Page 6