

CQ de WA2LQO

Seventy Two Years: 1944 -2016

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GARC Meetings are held on the 3rd Wednesday (time and place are changing – see pg 3)

How Ham Radio Prepared Me to Be an Engineer

by Bob Wexelbaum, W2ILP

(Continued from August 2016)

When I left Camp Gordon, GA I was given paper orders to report to a holding company in Fort Lewis, WA at a specific date, for shipping out to a tour of duty in the Far East. There were no other details about exactly where I would actually be going in the Far East. This was to be kept secret. I was given cash money to travel home from Camp Gordon and to travel from NY to Fort Lewis. I could make my own decision as to how I would travel by bus, rail or plane. I decided to go from GA to home by bus. As I arrived in Manhattan I decided to book an airline flight from La Guardia to Seattle-Tacoma on time to report at Fort Lewis, as well as to give me time to spend on leave at home. A travel agency had information about possible flights that I could select from. The cheapest was a small airline that offered non-periodically scheduled chartered flights. The flight I wanted was to be on a DC-6, which was the same plane major airlines were using on the same route. I paid cash and received a one-way ticket for the trip. While in The Bronx I participated in a RACES drill, using my car and my 10 meter phone equipment. I also attended a meeting of The Bronx Radio Club. Since I would not be home for a long time, I left my car in the care of my father, who was its registered owner (for insurance purposes). On my last Saturday night in The Bronx, I celebrated farewell with some of my friends by going to a bar and getting quite drunk; drunk enough to try to dance with a stripper and get physically bounced out. Early the next morning I awoke with a hangover, to the ringing of my telephone. I answered the phone and was told that my chartered flight was canceled! I asked where I could get my money back. I was told that the airline had no offices open on Sunday and the ticket could not be transferred to another airline. To get a refund, my ticket would have to be brought to an agent on the following Monday. Thus I would have to get a flight booked on another airline, on that Sunday to arrive at Fort Lewis on time. I called United Airlines and learned that it had such a flight but it was already booked to capacity. I panicked and called a ham I knew who worked for United. He said that he could get me a seat, by bumping a ticketed passenger off if necessary, but I would have to arrive at LaGuardia by 10:00 AM and pay cash for my ticket. I woke up my father. He was sleeping after having worked a night taxi shift. He had turned in his money to the taxi company. Neither he nor I had enough cash to pay for the needed ticket. I had to get on that flight because if I couldn't I would be AWOL. We drove to my cousin Honey's and her husband Al's home in Jamaica Estates (Their father, my Uncle Lewis Feldman, had previously died of a heart attack), which was not far from LaGuardia and we borrowed the money. My father promised to pay Honey back as soon as he could get the ticket refund from the chartered airline.

When I left Camp Gordon I stuffed all of my things into my duffle bag except for my civilian clothes and my underwear and toilet items which I would be using during my leave time. I was told that I would not be allowed to bring any civilian clothes to the Far East and should bring them home in my small bag which could be used to carry my tooth paste, shaving stuff, etc. I wore an Army dress uniform on the way home, which I would also wear during my travel time. My duffle bag was very heavy because I had stuffed it with books and manuals, including a hard covered "Radio Amateurs Handbook" and an "FM Simplified" book and many instruction books and manuals for specific military communications equipment which I got while at the Signal

School and foolishly thought I might need. I was told that I should take the heavy duffle bag home and bring it with me on the trip to Fort Lewis, but I found out that I could address it directly to the holding company in Fort Lewis at government expense by a railroad clerk, so I dragged it to the rail terminal at Camp Gordon, to avoid schlepping it home. It was too heavy for me to lift. I could only drag it. I locked it closed with a combination lock which I had used in my high school locker and tagged it with my name and the Fort Lewis address. I'll tell more about that heavy duffle bag next month.

On my flight the passengers were all male soldiers on their way to Fort Lewis. All wore Army uniforms. None had Signal Corps brass buttons. The DC-6 could only carry 68 passengers, thus it was easy to make these observations. After we got airborne the soldiers were served lunch and drinks, provided by United Airlines. Most GIs seemed to know others. I was so upset from my hangover and rush to get on the flight that I had no desire to eat lunch or order any drink besides water. This was the first time that I ever flew on an airplane. Two pretty hostesses served the GIs and socialized with them, much more than hostesses would have the time or inclination to get friendly with passengers on today's flights. They knew that the GIs were on their way to Korea. One of the hostesses told the GI who was sitting next to me to go and sit in her seat. She then sat next to me and asked, "Why are you so quiet?" I told her that I did not know any of the other soldiers. She said that was no excuse. I did not admit that I was afraid of flying. She did not know me and I did not know her, but she wanted us to know each other. It was the job of hostesses to keep everyone happy when flying United. When she served me supper and two bottles of beer, she saw that I had a good appetite. She told me about her life and how she got to get hired. She was from a mid-western state. When it was my turn to tell her about myself, I told her about my hobby: Ham Radio. She wasn't a ham but she knew all about Ham Radio, as many airline crew members were hams. DC-6s which flew overseas had CW Operators on them. Our plane was flying a long range flight but it was all over land so there was no need for a Radio Operator to contact ships at sea. She told me that hostesses were trained to copy Morse in case Radio Operators were disabled. Morse code was also used to identify VOR stations. When the plane landed each hostess wished good luck to each GI, one by one as we exited, and my favorite hostesses whispered, "Dahdahdahdidit Dahdahdahdidit" to me.

(To be continued next month)

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

The NYC-LI VHF community is overjoyed. Mr. Daniel Delise of Astoria Queens has been arrested and fined by the FCC, not only for his extensive radio jamming career, but for the dignified way (ahem) in which he comported himself. The FCC is fining him \$23,000 for the amateur radio violations, and everyone is waiting to see what the NYC Police Department will charge him with for jamming on their frequencies. Couldn't happen to a nicer guy. Nailing him took a large team effort. Hudson Division Director Mike Lisenco N2YBB sent out a press release thanking all the hams who helped log and track the jamming and the FCC officials who processed the Data to make the charges stick. He also gives thanks to Rep. Peter King for his support. I, for one, would especially like to thank Mike Lisenco for his part.

For years now software defined radios (SDR) have been the upcoming thing. At some point in the receiver the analog signals are digitized, allowing high speed computer processing to provide variable bandwidth filtering and all such things that relate to signal demodulation. It appears that things have reached a tipping point where it will soon be the only way to go. A few foreign outfits have developed little computer "dongles" (think of USB data sticks) that can work with a computer to receive TV signals. What is interesting is that they are not compatible with our US TV format, but by plugging a dongle into a computer, loading software, and connecting an antenna you can have a nice all-mode radio receiver for 25 -1600 MHz, even for SSB and CW with filters to match. Several outfits sell these with a separate old-technology mixer/oscillator module that allows you to receive from 25 MHz down to virtually DC. These are quite cheap. The dongles sell for about \$20 and you can buy the whole mess for less than \$100. (See January 2016 QST page 30). I am intrigued and am considering buying some of this stuff to play with it. I assure you that if I do I will keep you posted. Now Icom has come out with a new SDR HF transceiver (IC-7300) that is a completely integrated stand-alone unit which avoids the usual collection of modules and computers. It lists for \$1400, which matches what equivalent rigs go for. Things are starting to get interesting. I find it exciting.

Ed, WB2EAV

**GRUMMAN AMATEUR RADIO CLUB
MINUTES OF GENERAL MEETING 8/17/2016**

The meeting was called to order at the La Casa Café in Northport.

TREASURER'S REPORT – Ed, WB2EAV

Finances are in good shape.

REPEATER REPORT – Gordon, KB2UB

Repeaters are working.

VE REPORT – Ed, WB2EAV

Three applicants applied for the Technician test. They all passed.

VEs present were: Ed, WB2EAV, George, WB2IKT, Ken, KC2YRJ and Karen, W2ABK.

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**

PROGRAM

Our summer picnic/dinner was held at the La Casa Café in Northport. About 18 people showed up and had a good time. We were especially glad to see our senior GARC member Howard, W2QUV and his XYL

MEETINGS

Meetings of the GARC are held on the 3rd Wednesday of each month, but at this time things are in a state of flux. The September 21 and October 19 meetings will be at 7PM at Haypath Road Park in Old Bethpage (our recent Field Day site), and the November 16 meeting is at 7PM at the Bethpage Community Park Ice Rink.

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.

There's an Ecoplanet in Our Back Yard?

I had written several articles in this newsletter about the SETI (Search for Extra Terrestrial Intelligence) program, which was initially inspired by Carl Sagan. I explained that by putting any realistic numbers into the one-way radar range equation, I could prove that it would be totally impossible to receive a discernable signal from any intelligent E.T.s if they existed light years away from Earth. Since then over 3,000 exoplanets have been logged by astronomers. The planets orbit many stars of the Milky Way. Thus I was very excited to read that an exoplanet was observed orbiting Proxima Centuri which was said to be in what is called a "Goldilocks Zone" (not too hot, not too cold) and to be in "our back yard" according to Guillem Angelada-Esancude, an astrophysicist at the Queen Mary University in London, who reported about it in the journal called "Nature". I don't know how the astronomers have determined the following facts about this exoplanet, which they call Proxima b. They initially recognized it by noticing the wobbling gravitational effect it has on Proxima Centuri. I was disappointed when I read what is now known about Proxima b. It orbits Proxima Centuri, without rotating, thus with one side facing its star.. It speeds around in its orbit in 11 days, while we poke around our Sun in 365 days (a year). Proxima Centuri is a red dwarf star. Proxima b is on average 4.6 million miles from the red star. Spectrum analysis shows that it has an orange sky as compared to our blue sky. No one knows for sure if it has any water, an atmosphere, an ionosphere, and/or a magnetic field. Without those things to shield it, the hot side would be bombarded by X-Rays and UV light. Scientists believe that water and biological life could exist there underground. Life has a way of surviving on Earth under the most unfavorable conditions. Blind cave fish, which have evolved to have no eyes swim in total darkness in underground lakes here on Earth. Proxima b is about 4.22 Light Years (almost 25 trillion miles) away from Earth, thus it would take a radar pulse signal almost 9 years to make the round trip if the signal was reflected by the planet. Space vehicles can't travel at the speed of light. The fastest space vehicle velocity can't exceed 36,000 mph. At that rate it would take 78,000 years to get to Proxima b and twice as long to make a round trip. This is obviously impossible because humans can't expect to live that long. However there is now a new program called Starshot being planned by business leaders and scientists, including Stephen Hawking, that will send out hundreds of light-powered space probes, each weighing less than a gram and traveling at 1/5 the speed of light, yet capable of sending pictures back to Earth. Proxima b's Sun is smaller than ours and Proxima b is 1.4 times larger than Earth, yet optimistic scientists see it as a natural location "in our back yard", where humans could aspire to move after our Sun sputters out 5 billion years from now. That is.. if Proxima Centuri doesn't burn out first. Although there may be life on Proxima b, odds are that it is not very Intelligent Life...unless the creatures that exist there live in another parallel universe...I think...So what about our Search for Extra Terrestrial Intelligence? At this point in time it would not be politically correct to comment or joke about the relative intelligence of any possible life forms that we are presently unable to inspire, convert, motivate, shoot, test or tax.
--w2ilp (Intelligent Local Planet?)--...in a "back yard" 25 trillion miles wide...Want to buy a golf course?

PUZZLE

Lasts month's question was:

Who had first hypothesized the Uncertainty Principle?

- A. Erwin Schrodinger
- B. Werner Heisenberg
- C. Stephen Hawking
- D. Neils Bohr

Answer: The correct answer is B

This month's question is:

Who hypothetically risked the life of a cat in a box?

- A. Erwin Schrodinger
- B. Werner Heisenberg
- C. Stephen Hawking
- D. Neils Bohr

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Newsletter

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 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. Articles will only be edited when permission is granted by the author.

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 7:00 PM. 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. Applicant 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

In the September 2016 issue of "QST" ARRL CEO Ted Gallagher NY2RF editorializes about the 47 GHz ham band which he fears hams may lose if they don't use. He talks also about other millimeter ham bands that few hams experiment with but he says absolutely nothing about the 250 GHz ham band, which hams now share with Wi-Fi. Hams can use the same router channels that unlicensed people use. If they want to operate as hams they must use the same rules as are expected to be used by Hams who obey FCC Part 97. Why operate as hams when you can set up private networks, same as anyone can and transmit music and content or modes that hams shouldn't? In either case we add more traffic to the already overcrowded 250 GHz WiFi channels.

In the July 2016 edition of the "IEEE Spectrum" there is a 6 page article by Terry Ngo entitled "Why Wi-Fi Stinks" that says absolutely nothing about ham radio! There are two WiFi bands : 250 GHz and 500 GHZ. The 250 band is best at going through walls and furniture in average homes, while the 500 GHz does not do as well and requires more power to cover the area that works at 250 GHz. Most modern routers cover both bands but start making contact on 250 GHz where only three channels are available in the USA:- Channels 1, 6 and 11. There are actually 14 designated WiFi Channels. Each channel is either 20 or 22 MHz wide. The channels overlap so that no more than three can be used in the same area without interfering with each other. Most of the traffic in the 5 GHz band occurs on Lane 1 and 6: Each Lane has five 20 GHz channels. Lanes 2,3,4,5 are shared with RADAR pulse signals, Advanced portal routers can detect radar pulses which are as narrow as 0.5 usec and get out of their way immediately since they have priority. The portals must be reset before lanes can be utilized again if they become clear. Only Lanes 1 and 6 are usable until you manually reset on your system. Why does WiFi stink? What can be done to fix it? I'll answer next month.

73 de w2ilp—(Increase Local Portals?)

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FIRST CLASS MAIL

Do Not Delay

A BOOK REPORT

(Continued from August 2016)

Last night I saw, on a segment of “Sixty Minutes,” a program about the Collider where bosons were produced as byproducts of the collision of high velocity protons, which became visible photons. It was narrated by Leslie Stahl, who escorted us around the 17 mile diameter Collider which is underground between France and Switzerland. There was also a rebroadcast that showed Mr. Higgs receiving the Nobel Prize. The fact that bosons would be byproducts of colliding protons was known since the 1930s when protons from outer space were observed colliding with lead and producing flashes of light. Higgs did not invent bosons. Four types of bosons hold atoms together. What Higgs did was to accurately predict bosons’ parameters. Unlike Max Tegmark, who wrote the book called “Our Mathematical Universe”, Higgs appears to be a very humble conventional person rather than a hippy type scientist who defies cultural norms. Both Higgs and Tegmark work on the quest for the ultimate nature of reality in our mathematical universe. Obviously Higgs has done a good job of applying the proven laws of science to the quantum mechanics that is involved. This includes thermodynamics and Newton’s Laws as well Maxwell’s equations and verifies Einstein’s famous $E=MC^2$. Lots of scientific reality defies certainty. With all that we know we can’t accurately predict the path of a tropical storm for more than a day. But there is mathematical certainty that if all the facts are known nothing need be uncertain. When Einstein said, “God does not play dice with the universe”, many people did not understand what he meant. Playing dice is gambling and gamblers use probability theory to make predictions of favorable or unfavorable odds. Einstein meant that there must be mathematical certainty because the universal laws can provide that certainty if we know how to apply them. Now we find Heisenberg saying that we can’t predict both the position and the velocity vector of a particle but we can know only one of those without the other. Einstein says that there is certainty that the particle has a unique position and velocity vector but only the God of Spinoza (nature of universal reality) knows that it is certain. Fred Allen, a famous philosopher comedian said, “God only knows what Pincus puts into his patented pickles.” In a similar way humans tend to say, “God knows...” when they believe that they will never know.. Tegmark differs from average humans. In the case of Heisenberg’s uncertainty Tegmark ventures to say that the particles exist in many places and at many velocities at the same time in many other universes. There is certainly no space for me to continue with parallel universe Tegmark theory here. So I’ll try to continue next month if the GARC and I still exist for certain.

--w2ilp—(Illuminated Lost Particles!)--

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