

CQ de WA2LQO

Sixty Eight Years: 1944 -2012

The official voice of the Grumman Amateur Radio Club

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WHO INVENTED CELL PHONES

By Bob Wexelbaum, W2ILP

I am interrupting my Communications System series, to present something different now. The evolving keyboard modes may be of little interest to hams that don't often use them. Some modes are already getting obsolete, while others may remain as a nostalgic tradition long after they have been surpassed by better, faster or more user-friendly methods to communicate. There are amateurs who have been incrementally progressing, approaching commercial telephone technology asymptotically, and don't want to continuously punish themselves by attempting to squeeze less reliable signals out of the noise for a hobby. I have to believe that some of us old hams may be getting obsolete as well.

As a member of Mensa, I receive a monthly magazine called "MENSA BULLETIN". This month the cover promised an article called "The Mensan Who Invented the Cellphone". Previously I had written about other inventors here, so I was interested in reading the article. The man who did it was Dr. Martin Cooper. He is now semi-retired and living in Del Mar, California.

Dr. Cooper tells us that as a kid of 4 or 5, he already knew that he wanted to be an engineer. He saw Boy Scouts using a magnifying lens to burn paper and wanted to repeat their experiment, so he tried it with the bottom of a broken Coke bottle. The thing that always excited Cooper was that he wanted to do something new. Perhaps that may be why he never wanted to become a ham. I dunno for sure.

Cooper says that the most important thing that an engineer can do is to understand whole processes, not just one step or one specialty. I can agree with that, but I know that large corporations always want to divide up the work, so that they can assign it to more people and they often don't develop good systems engineers who can understand entire process ... from lab to end user or from the basic components to entire assemblies, including related software! Good systems engineers should demand high pay.

Cooper laments about what he sees as a coming crisis of radio spectrum usage. He claims that the FCC must be better advised about spectrum allocations. He now advises the FCC and is on a committee for the Department of Commerce. He is working to advise about improving spectral efficiency. I dunno if he thinks of hams as being efficient spectrum users. He claims that Verizon, AT&T, and others are not using the spectrum efficiently, and is critical of the entire fragmented frequency usage that has evolved since the days of Marconi. He talks about the importance of mobile communication for everyone, and about monitoring lung fluid to predict the coming of heart attacks before they happen. He also recognizes the social (media) revolution which is now just a game for most but may become a practical tool and a necessity of life for everyone, as well as for business enterprises.

Cooper also observes that the worst part of modern technology is that a cellphone instruction manual is bigger than a cellphone. He wants future devices to be so intuitive that you don't need to learn how to use them. We all know hams who can't program their HTs...even with a very large instruction manual.

Cooper is credited with inventing the first cellular telephone while working for Motorola. He made the first cellular telephone call in April of 1973. Hmm...I wonder who answered that call; Perhaps we need to give credit to the first person to receive a cellphone call.

Cooper's unique cellphone concept is known fully as the Hexagonal Cellphone System. Regions are divided into hexagonal areas called cells, each of which is covered by a single repeater.

Nathan Stubblefield was the first to build a mobile radiotelephone in 1908 in a large backpack. His work was followed by various mobile communications devices. When silicon transistors were perfected many Ham Radio HTs soon followed; many from Japanese corporations. But we must admit that the cell phone's full duplex protocol beats any Ham HT and the modern commercial telephone systems leave little to be desired for diverse mobile communication, as good or better than land-line phones.. The modern cellphone system was derived from Cooper's prototypes by AT&T and Bell Labs as a joint effort, and is now truly international in scope. Cooper became a CEO of an antenna company but he is now semi-retired and works mainly as an advisor to the FCC.

When I was a kid of about five, I didn't know what an engineer or a Boy Scout was. I didn't break a Coke bottle to try to burn paper. Instead of that I took my parent's cheap mechanical alarm clock out of their bedroom while they were sleeping. I wanted to find out what made the clock tick. I broke the glass on it, but that only exposed the dial. Then, having no tools, I used my front teeth to pry open the little metal tabs that held the clock together. I saw the escapement gear swinging back and forth. It took me 15 more years to learn about swinging pendulums and simple harmonic motion. At five I had only succeeded in chipping a front tooth and getting a swinging spanking for my curiosity. [Nobody was able to repair the dissected alarm clock after it stopped ticking]...but at six I heard people say that kids should be seen and not heard. I decided to be a ham then...so that I could be heard and not seen. This was possible through radio communication. Nobody ever credited me for my insights. I once observed that all of the digital buses and parallel cables on all types of aircraft could be replaced by single fiber optic line, if not by a single 75 ohm coaxial cable. I was laughed at. I guess that they did not realize what Cablevision and Verizon were doing.

PRESIDENT'S NOTE by ED GELLENDER, WB2EAV

Recently I mentioned that the rapidly rising cost of Post Office Boxes has put us in a situation that it costs several dollars for each letter we get. Well, as painful as it is to abandon something that has meant so much, we will be discontinuing the PO Box in a few months. To allow a smooth transition, it is now time to start listing the new address (my house): Grumman ARC 215 Birchwood Pk. Dr. Jericho, NY 11753.

You may have read elsewhere in this newsletter that our lead VE, Bob W2ILP, is stepping down. Unless someone else stands up, I assume I will take over in his absence, but I am counting on continued support if we are to keep the VE program running anywhere near as well as it has been for all these years.

The election of Hudson Division Director is taking place this month. All ARRL members will receive a ballot; You should have yours already.

It has been quite a while since there has been an election for the position; I can't even remember it. When Frank Fallon N2FF stepped down a few years ago, his deputy Joyce Birmingham, KA2NAF took over. While Frank lives on Long Island, Joyce lives in northern New Jersey, which makes going to Hudson Division functions especially painful, with having to take some of the most crowded roads in the area plus bridge tolls. Of course, the Hudson Division is large enough so that everyone cannot be around the corner...but I got used to having it, and now I am spoiled and selfish, and want it back.

Our own NLI Section Manager, Mike Lisenco N2YBB, is enthusiastically running for the slot. Being from the NYC - LI area we have seen a lot of him during the past few years, and the consensus of opinion is that we like what we see.. Everybody I talk to locally thinks that Mike would add some fire-in-the-belly passion that has been missing.

Now, Mike lives in Brooklyn, which is not quite around the corner either. He very well might hold the Division functions there, but I'll take driving on the Belt Parkway over the Cross Bronx anytime.

I see Mike as a true asset to ham radio in general and to the local clubs in particular. I am glad he is running, wish him well, and am sure that he will do well by us if he wins. We will keep you informed as this develops.

**GRUMMAN AMATEUR RADIO CLUB
MINUTES OF GENERAL MEETING 9/19/2012
By Karen, W2ABK**

The meeting was called to order by Jack at 5:35 PM

TREASURER'S REPORT – Ed, WB2EAV

Finances continue to be in good shape.

REPEATER REPORT – Gordon, KB2UB

Repeaters are working.

NET REPORT – Karen, W2ABK

Thursday night net at 8:15 PM on 146.745 MHz had 2 check-ins.

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

Sunday morning net at 7:30 AM on 7.289 MHz had 3 check-ins..

VE REPORT – Bob, W2ILP

3 applicants applied : 2 upgraded to Extra Class, 1 upgraded to General.

4 VEs were present: Ed WB2EAV, George WB2IKT, Karen W2ABK and Bob W2ILP.

Bob W2ILP will be stepping down from being the Contact VE as of January 2013. The GARC is looking for a replacement.

OLD BUSINESS

We need programs for our meetings.

PROGRAM

Congratulations to John Jeavons, KA2YIY who upgraded to Amateur Extra Class.

GARC NETS: 40 Meters: 7.289 MHz at 7:30 AM EST Sundays

Net Controller: Eugene, W4JMX

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.

MEETINGS

General Meetings of the GARC are held on the third Wednesday of each month, starting at 5:30 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 held a week before the General Meeting at the Bethpage Skating 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.

INTERNET LINK OF THE MONTH FOR INTERNERDS

I haven't found any specific web site to write about here this month. The wonderful worldwide web has lots of stuff that you might be interested in, but I'm leery of recommending what I like since tastes vary so widely. You might not like movies that I like, or vice versa. Appreciation of art can vary widely, and what is non-fiction reality might be too political for some. To pick one relevant example, the QRZ Ragchew site has moderators whose job is to close threads when they get too opinionated or political. There is a lot of stuff on the web that is supposed to be funny that I just see as horrible accidents or excessive violence. People have always gone to sporting events, car races, rodeos, ski slopes, etc. subconsciously wishing to see someone get injured; That's just human nature. On the other hand, the need for real stunt men is going down as modern computerized cinematography makes it easier for anybody to fly on-screen like Superman or Spiderman. That also applies to any creature you can draw. YouTube carries it all. The advertisements that accompany television shows are now often far more realistic than the entertainment. I can't recommend any of it myself since I recently added HBO and Starz to my Cablevision package, and am disappointed. I guess that I'm not up to date myself. Maybe that's why I prefer the old movies on the Turner Movie Classics channel. I think that the GEICO gecko is funny because he has a British accent, but you might think otherwise.

PUZZLE

Last month I asked this question from the new Amateur Extra Exam.

What class of licensee is authorized to be the control operator of a space station?

- A. All except Technician Class
- B. Only General, Advanced or Amateur Extra Class
- C. All classes
- D. Only Amateur Extra Class

The correct answer is C.

This month I will again ask a question from the new Amateur Extra Class Exam.

How many horizontal lines make up a fast scan (NTSC) television frame?

- A. 30
- B. 60
- C. 525
- D. 1080

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2 Yr. Board Member: Dave Ledo, AB2EF

2 Yr. Board Member: Jack Hayne, WB2BED

2 Yr. Board Member: George Sullivan, WB2IKT

Newsletter

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Editor: W2ILP 631-499-2214 W2ILP.RADIO@gmail.com This is new E-mail address.

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 5:00 PM. The exams are given at Briarcliffe College, 1055 Stewart Avenue, Bethpage, NY in room: Long Beach #5. Ham Exams are: Element 2 – Technician, Element 3 - General, Element 4 – Amateur Extra Class. All applicants must pre-register by contacting W2ILP. Time and location of exams are subject to change. If there are no applicants VE sessions will be cancelled. The fee for 2012 is \$14 for all exams taken at one sitting. New first time applicants should be aware that their Social Security Number will be required on the application form unless they register with the FCC for an FRN. Applicants for an upgrade should bring their present license and a photocopy of it. All applicants should bring picture ID such as a driver's license. Study material may be bought from the ARRL-VEC or W5YI-VEC <http://www.arrl.org> or <http://www.w5yi.org> All VECs use the same Q & A pools.

Commercial FCC Radio Operator Exams

We are certified by the National Radio Examiners to administer exams for all classes of FCC commercial radio operator and maintainer exams. All Commercial Operator License Examiner Managers (COLEMS) use the same commercial license pools. Administrating fees vary. For information or to register contact W2ILP.

Editorial

I want to thank all the GARC members who signed a get well card that was mailed to me. I also want to thank Dick Townes, W2INJ, who telephoned to wish me well. Dick was a very active member of the club when he lived on Long Island, but now he lives in Florida in a community where he cannot erect antennas of any kind. He still remains a member and I am flattered to hear that he reads all of these newsletters.

I have decided to continue as the point of contact for Volunteer Examinations until the end of 2012 and will give up that responsibility as of January 2013. As of this writing we have no registered applicants for the October 2012 VE Session and it will be cancelled if there are no applicants. I will keep VEs informed.

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FIRST CLASS MAIL

Do Not Delay

Vote?

I cannot try to influence anyone here with regard to any political candidates. I admit that I am opinionated, so it isn't easy for me to keep quiet.

I now receive Social Security payments like most people who are my age in addition to pensions from two corporations that worked as contractors for the U.S. Government. Although I earn enough from investments and IRAs to keep me out of poverty, and I don't qualify just yet for food stamps, I am very close to the 47% of Americans that were recently defined as people who don't work and live on government money. Enough said about me.

I can only suggest that you all vote for the candidates of your choice. Remember to entirely fill in the little circles on the paper ballots that you receive. If you don't do that carefully your ballot may be rejected by the voting machine when your ballot is scanned.. If the ballot is accepted your vote will be added to digital accumulators that tally up all of the votes. --w2ilp--

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