

Next meeting: September 5th

September 2014

PO Box 474 Crestwood. IL 60445-0474 www.hamfesters.org

Special Interest Articles

Groaners pg.5 Hamfest Summary pg.5 Graphene Transistor pg.7

September Birthdays

James KA2DRQ Jon KC9FIN Gary W9GUN Patrick K9JAU Dave NF9N John KC9000 John AB9SI Gordon WM9T Mathew Flisk Peter WB9W

#### **Officers**

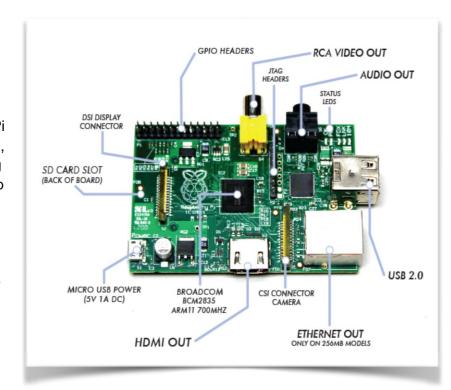
President-Don KC9EQQ Vice President -Jim KB9CYL Secretary-Patty KC9LYE Treasurer- ED WA9EOL SGT at Arm-Rich N9UNQ Trustee-Bruno K9QKB **Board Members** Nora KC9MLV Steve W9KXT Kurt WB9FMC Kerry AA9SB Cathy KC9NRH **Hamgab Editors** Steve & Eric KC9OOL & KC9OOM Scapstone@aol.com

Final Reminder: The SS Badger trip will be on September13&14. Go to SSbadger.com or call 1-800-841-4243 for reservations.



### Raspberry Pie Next Meeting!

Hamfesters September meeting features an introduction to the wide world of the micro computer. In our case we will introduce you to the wildly popular Raspberry Pi computer. As you can see, all connections simply plug in to sockets making set up a snap. You use any normal mouse and keyboard. There is an ethernet connector so you can surf the web and more importantly download any of the thousands of free programs and games. Bring the "kid" in you and also your kids and grandkids. See how they



take to this fun and educational computer.

Thanks again to all of the Hamfesters who helped out at this year's Hamfest. A special thank you goes out to Kerry AA9SB and Kurt WB9FMC for their tremendous efforts in making this year's Hamfest a great success. See Kerry's column on page 5 for a Hamfest summary.



# WHO MADE HAMFEST GREAT? YOU!

### THE PRESIDENTS BEAT

DONALD POINTER KC9EQQ SEPTEMBER 2014

For the better part of the year, you see my face lined up with my Presidents column. This month you get a break. You get to see some of your colleagues in my header photo area. And maybe *you* are in that photo. So why did I place that photo in my column?

Well it's my way of saluting the many of you who came out and volunteered your time to make this year's Hamfest the success that it became. And don't get me wrong, I certainly am appreciative for all of you who came out to buy, sell and visit our Hamfest. Member or not your participation at any level at this Hamfest is well appreciated.

But, as President of this, one of the oldest Ham Radio Clubs anywhere, it is my job to motivate, support and inspire others to work together as a team in keeping our club viable. We must recognize those who went out of their way these past 12 months since Hamfest of 2013 to get us over some tremendous hurdles in pulling Hamfest 2014 off. Allow me to elaborate.

When Rumors began to swirl that we were not going to have a Hamfest, you took action by going to breakfasts with members of other clubs and their regular meetings too and let folks know that our Hamfest 2014 was a go. You went on many a net, many a time to encourage folks to attend not just Hamfest 2014 but our regular meetings also. Yep, those rumors got you fired up! Fired up enough to do something about it and show folks nothing beats the truth about what we are doing to make this club attractive to others and how strong our presence is within the Chicago area Ham Radio community.

A lot of good actually came out of those rumors as it made us all realize we need to continually work at making this club stand out as the best club around by virtue of the teamwork you constantly demonstrate at each and every meeting. As President, that teamwork truly makes me pop my buttons with pride when I see it in action!

As everyone worked hard to promote this years Hamfest a dialogue came to life that asked the question, "What can we do to make the Hamfest event even more inviting for all concerned?" Well the ideas really came to surface almost immediately! Everything from gaining a golf cart to move around the Hamfest more efficiently, to lining up guest speakers for next year, offering advertising for early bird vendors who reserve early for next year on our website, exploring ways to attract families to come out and have fun at Hamfest, and of course without question, continue the Vendor/Volunteer workers night held the night before Hamfest. These ideas will be discussed at future board meetings and regular meetings.

As a matter of fact, at the August 1<sup>st</sup>, 2014 meeting Brian Davis hung up large pieces of paper and with a marker he wrote on it ideas that members in attendance that night stood up and provided us. Every month, we will take five minutes at each meeting and ask for more ideas from you the members. So put your thinking cap on and give us your input, or if you'd rather, pass them on to a board member so we can discuss them at any future regular stated or board meeting.

Another good thing came out of this revisit as to how to make Hamfest successful, was our desire to start booking vendors a lot earlier. We will convey to the vendors that the early bird gets the worm and the better table spot in the building at the fairgrounds itself. After all, it's all about location, location isn't it?



To top it all off, not only did our members deal efficiently and effectively with squashing the rumor mill to pieces, we had to deal with the passing of too many good members in this past year whose contributions during their time with us on this planet added so much to the success of not only Hamfest but the club itself. Frank Gassmere, Bob Truhlar, Joe Kratky, Mike Serapin, Roger Borowski, Matt Sobczak just to name a few no doubt left their mark on this club and each one of us personally. I can certainly attest to that speaking for myself. In a way, I like to think we all personally dedicated ourselves at Hamfest 2014 to the fine memory of these individuals.

Next year's Hamfest will be better than ever, because of people like you. And thank you Kerry Nelson and Kurt Pawlikowski for working together with your committee to pull Hamfest 2014 off. I cannot wait to see what you will do for 2015. And I bet a lot of people will want to be part of your bandwagon to make Hamfest 2015 the best on record, and *that* "ain't no rumor!"

Back on the beat.... Don't forget the SS Badger Trip in September....Contact them soon to book your reservation.......Our September Program will be on the incredible Raspberry PI computer and "will be presented in part by our very own Brian Davis and Steve Peters! Come out and show them your support in what promises to be one very educational and fun evening. Remember- the September program will be held on September 5<sup>th</sup>, the usual first Friday of the month.

73 to all of you and have a great Labor day weekend too!

Don Pointer KC9EQQ

President of Hamfesters- The Best darn Ham Radio club around!

Questions, comments etc., for Don? Please email him at: dpointer65@gmail.com or call him between the hours of 10am to 8pm at: 773-426-1936.

# Board Meeting Minutes de Patti, KC9LYE

W9AA Hamfesters amateur radio club board meeting July 28, 2014 meeting began at 7:34 PM.

**Roll:** Don KC9EQQ, Jim KB9CYL, Patti KC9LYE, Kurt WB9FMC, Steve W9KXT, Nora KC9MLV, Cathy KC9NRH, Kerry AA9SB, Brian W9HLQ, Bob N9KWG, Helen Pawlikowski.

**Silent keys:** A moment of silence for Bob Trular W9LNQ, and Frank Gassmere K9BWQ.



**Programs:** August 1 hamfest by Kerry AA9SB, September 5 raspberry pi by Mark Zelesky KA9OOI, October Good Humor Guy (ice cream), November Steve Cooper 1960s TV.

Hamfest 2014: by Kerry AA9SB, and Don KC9EQQ, the August 1 club meeting will begin at 7:30 PM. Saturday, August 2 at the fairgrounds in Peotone, Illinois. There will be a vendor's picnic (pizza) at 7 PM, setup at 5 PM. The club will have a golf cart on August 2 and 3rd. At the hamfest on August 3, we will not use the club's trailer. Jim KB9CYL, will use his car and radio for talk in. The hamfest banner will hang on the fence by the East gate. During the hamfest contact Don KC9EQQ, in an emergency. If it is a medical emergency say code and contact 911. Hamfesters is not responsible for lost or stolen items. There are 22 vendors for Sunday's hamfest.

**Hamfest 2015: by Kurt WB9FMC**, at the hamfest on Sunday, August 3, 2014 tickets for hamfest 2015 will be available for sale. There will be hamfest 2015 fliers for the vendors. This was approved by the board, Steve W9KXT, seconded by Nora KC9MLV.

Adjournment: 9:23 PM

# General Meeting Minutes de Patti, KC9LYE

W9AA Hamfesters amateur radio club. August 1, 2014 club meeting began at 7:40 PM.

Roll: Don KC9EQQ, Jim KB9CYL, Ed WA9EOL, Patti KC9LYE, Rich N9UNQ.

**Silent key:** a moment of silence for Frank Gassmere K9BWQ.

**Upgrades:** Tim Szymanski KC9POS, has upgraded to an extra class license. And Tammy Jennings KD9BSZ, has received a technician license. Tammy has become a member of Hamfesters. Congratulations Tim and Tammy!

There were 33 people at tonight's meeting, including 2 visitors.

**President's report: by Don KC9EQQ**, a thank you to everyone who attended our annual July picnic. And, thanks to Ron Kalat KB9TCX, and the members of the Chicago Ridge VFW

for presenting the colors at the July picnic.

**Programs:** tonight's program is hamfest August 1, 2014 by Kerry AA9SB. September's program will be raspberry pi.

**Hamfest 2014:** by Don KC9EQQ, Saturday, August 2 at the Peotone, Illinois Fairgrounds. There will be a vendors pizza dinner at 7 PM. Setup is at 5 PM On Sunday, August 3 at the hamfest Peotone Fairgrounds, there will be VE testing. Saturday and Sunday, August 2 and 3rd at the Fairgrounds are club will have the use of a golf cart.

**Hamfesters website:** Thanks to Brian W9HLQ, Gene W9PNG, Steve KC9OOL, and Eric KC9OOM for their work on our websites. Additional website features; a list of hamfests, and a nets list. Also, there is a silent key website. If you have information, please contact Gene W9PNG.

Minutes: the July minutes were approved by Ron KB9TCX, and seconded by Bob N9JYX.

**Treasurer's report: by Ed WA9EOL**, thanks to Jim KB9CYL, for a great field day, approved by Jim N9HSH, 2nd by Jim KB9CYL.

**New business:** Brian W9HLQ, has an A B receiver, if anyone is interested.

**Field day 2014:** by Jim KB9CYL, top contacts; CW Kurt WA9FMC, phone Eric KC9OOM, digital Al N9ZD.

**Hamgab:** by Steve KC9OOL, and Eric KC9OOM, thanks everyone for getting your articles in early for the July Hamgab.

Publicity: by Kerry AA9SB, publicity was sent out for tonight's meeting.

#### Ideas for hamfest 2015:

- 1. Single stub tickets for sale at VE testing during June and July.
- 2. Recognition for tailgate vendors at the hamfest most stuff for sale.
- 3. Fox hunt at the hamfest.
- 4. Better hourly prizes.
- 5. Pig roast.
- 6. APR (idea from Tim KC9POS).
- 7. Internet advertising on other websites.
- 8. Wider distribution of Hamfester fliers.
- 9. CPR instruction.
- 10. Donation auction (idea from Linas KC9PCP).
- 11. Half-price tickets for new hams at VE testing.
- 12. Split the pot.

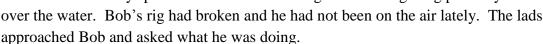
**Split the pot:** tonight's winner of split the pot was Tammy KD9BSZ, congratulations Tammy!

**Door prize winners:** Dave N9KPD 3 times, Bob KB9YXH 2 times, Mike WA9ZPM, Linas KC9PCP, Nora KC9MLV, Jim KB9CYL, Herb KC900K, Kerry AA9SB.

Adjournment: at 9:45 PM

# The Chip

Two young hams were walking downtown one day on their way to the local ham radio store. As they walked near the harbor they spied their friend Bob sitting on a bench gazing patiently out





Bob replied that he was "waiting for his chip to come in".

Groaners by Brian, W9HLQ

Stay tuned for more Groaners in upcoming issues.

#### **Hamfesters Roster News**

#### New member:

Tammy Jennings KD9BSZ

Tammy lives in Oak Lawn and likes to operate two meters.

Her information can be found at the Members Only page of our web site.

### Hamfest 2014 Report de Kerry AA9SB Hamfest Committee

Our 80th annual Hamfest on Sunday, August 3, 2014, was a success again this year, once more thanks to the efforts of our wonderful club members. The weather was great – couldn't have been better – thanks to our Creator above. Thanks also to Gail Iannone, at QST/ARRL, and Dick Isely, W9GIG, our Central Division director, for their incalculable assistance. Jim, KB9CYL, did a great job on gate ticket sales and Dave, N9KPD's advanced sales were outstanding. Thanks, Jim and Dave.

Vendor table sales rebounded from last year. Despite what anyone may say, our 80<sup>th</sup> annual Hamfest, turned out to be quite a success, due again this year to the teamwork of our great club members (there's must be a reason why we're called Hamfesters!) Vendor sales were as follows (with the figures for the last <u>several</u> years:



2014 - 40 tables – 12 vendors	2011 - 54 tables – 14 vendors
2013 - 32 tables – 11 vendors	2010 - 78 tables – 16 vendors
2012 - 44 tables – 10 vendors	2009 - 55 tables – 15 vendors

The north room of the exhibition hall was almost completely filled ("almost": in the future we have to make it clear to Will County Fairgrounds that we are the ones determining the number of tables to be put out on setup Saturday.) The south room was only two-thirds filled but we closed off the south end of it. Two vendors were missing in action, -- Gold Medal Ideas and Hinsey Electronics, both of whom promised to return. TiggiePooh Electronics, unfortunately, won't be as they are retiring from the hamfest circuit. Debco Electronics (Tom) who was the one who informed us of Don Zeman's passing and who initially planned to attend our 'fest with a promise of 8 tables – didn't make it and he and some of the vendors who didn't make it this year will be encouraged to make it next year. The north room bustled with activity with the help from Steve Zahos

(Amateur Accessories), as well as Ron Ross (Electronic Rainbow), RF Adapter Guy (and Matt), and Johnnie Duffie from Hazel Crest -- all of whom will back next year! Grace Technology promised to make it next year.

I truly thank all the Hamfesters who made our 2014 event so successful. Knowing I'll omit many people who did so much, I list those subcommittee coordinators who took charge of the major areas of the hamfest, and their crews: Dave Bukowski, N9KPD, who excelled in his new job as overall Ticket Sales Coordinator, Jim Riley, KB9CYL, who reprised gate sales; and all the other ticket sellers, including Pati, KC9LRE, Don, KC9EQQ, and Nora Pointer, KC9MLV (who deserve a big thanks for the pizza and dessert treats for the vendors and some of us workers on Saturday evening); also Bob, KB9YXH, and his assistants for their work on prizes and announcements; treasurer Ed, WA9EOL, for keeping track of our dollars and cents; Rich, K9UNQ, our security coordinator, and his crew; John, AB9JW, set-up coordinator, and his crew including the half-dozen members of the set-up crew including Mike, WA9ZPM, and Don, K9KNZ. We also thank Al, N9ZD, and the VE testing crew. And most of all, every one of you who contributed so much to make the 80<sup>h</sup> Annual HRC Hamfest successful. If I left anyone out, I'll get you in next month's Hamfest report postscript. Thanks, one and all!

The Hamfest Raffle Winners were: 500.00 ROBERT KALLAS WA9NPS 300.00 WILLIE BOSTON AC9OI 100.00 MATT RONDE KC9VOX

### Hamfesters VE Testing August 2014 de Al Bukowski N9ZD VE Coordinator

On August 3, 2014, Hamfester's Radio Club VE's administered tests at the Hamfester's Hamfest in Peotone, ILL. We tested a total of seven individuals in which one obtained a Technician ticket, one upgrade to General, and one earned a Extra ticket. Congratulations to the candidates. The VE's that volunteered their time were Bob N9JYX, Gene KB9RNM, Val AK4MM a visiting Orlando, Florida VE, and myself N9ZD.

The following weekend Hamfester's Radio Club VE's team administered exams at the Oak Forest City Hall 15440 S. Central Ave. Oak Forest, II 60452. We had one candidate who earned a Technician License. Ron WB9JYZ, Tim AA9BV, and Gene KB9RMN assisted me administering and grading the exams. Thank You to all the VE's for your dedicated time.

Hamfester's Radio Club conducts FCC authorized tests for Technician, General, and Extra class licenses every 2nd Saturday each month at Oak Forest City Hall 15440 S. Central Ave. Oak Forest, II 60452. Doors open at 9:00 AM. We begin testing about 9:15 AM. Enter through the Police door entrance and look for the Amateur Radio testing exam signs. We do ask that you park your car in the main parking lot between the Fire Department and the Police Department and not directly in front of the Main doors to City Hall.

Our next test session will be held on Saturday September 13, 2014.

It is very important to bring the following items with you to any VE exam session: The appropriate test fee (currently \$15). A picture ID (driver's license or Student ID Card etc). A calculator if you would like to use one. And it's very important to have your Social Security Number, or if you are licensed please use the FRN (Federal Registration Number). If you are upgrading, bring you're Amateur Radio license and a copy. Also it is essential to bring any issued CSCE and a copy showing proof of recent passed exams if not already processed by the FCC. If you have any questions regarding our test session or about upgrading, please contact N9ZD via e-mail at: N9ZD@arrl.net.

Walk-ins are welcome and again test fee is \$15.00 (cash only -- no credit cards or checks).

### **Editor's Rambles**

Busting Moore's Law

In 1965, Intel cofounder Gordon Moore observed a principle known today as Moore's Law – every two years, the number of transistors that can be squeezed onto a single chip will double. For nearly fifty years, this law has held true, but recently, engineers have been struggling to find ways to overcome the fundamental limitations that the laws of physics impose on how small and how closely spaced transistors can be while still functioning as expected. Engineers have had to find ways to deal with heat distribution, current leakage between transistors, and even electrons jumping from one transistor to another due to an effect that occurs at very small scales known as quantum tunneling. While researchers at Intel and other companies have valiantly kept the pace of innovation up with Moore's law, they are fighting a losing battle. Within the next few decades, new technologies will have to be found to keep processing rates advancing at the same rates they have since the sixties.

One new material that holds promise to provide a replacement f or silicon transistors is graphene. Hailed as a miracle material among the scientific community, graphene is simple a single-atom-thick sheet of carbon. It is more conductive than any known material at room temperature, and electrons can travel through it 100 times more quickly than they do through silicon. That means that whereas transistors in current processors

might operate at approximately 4 gigahertz, similar graphene transistors could operate at upwards of 400 gigahertz. However, the graphene
Si backgate

SiO<sub>2</sub> dielectric

<u>http://creativecommons.org</u> www.jameshedberg.com/scienceGraphics

same traits that make graphene so amazing make it difficult to use for transistors. Because silicon is a semiconductor, electrons can only flow under high-energy states; so silicon-based circuits use the high and low states to represent the 1's and 0's of binary logic. Graphene is too conductive to have high and low states, so researchers are currently hard at work at finding different ways to represent 1's and 0's in graphene. One promising concept uses a phenomenon called negative resistance, the workings of which are beyond the scope of this article. This method offers great promise to create very efficient, very fast graphene integrated circuits. However, because the electrical principles it uses are so different from current circuit technology, it will take many years for these powerful graphene circuits to appear in electronics outside of the laboratory.

Announced at the Discover conference earlier this June, HP Labs is currently working on a project called simply The Machine. Rather than increasing the speeds of processing units, HP promises to increase performance by tackling a different bottleneck – increasing the amount of data that can be processed in a short time. The Machine uses chips containing a large number of small processing units that can be clustered with fiber optics to shuffle and process data at a much higher speed. They

also use a new form of storage dubbed memristors that use oxygen ions to store information. HP has been very secretive about how this technology works, so skepticism has been high, but their claims seem to imply that they have found a way of moving information between memristors, fiber optics, and silicon with very little latency. No one outside of HP can predict whether this technology will pan out, but if it does, it promises to bring a new era of powerful and efficient computing to the world.

A third candidate to put the wind back in Moore's law's sails is the return of a venerable technology – the vacuum tube, albeit in a new form. Researchers at the NASA Ames research center have been working to develop vacuum transistors, devices that blend the best elements of both transistors and vacuum tubes. Essentially, they are simply vacuum tubes shrunk down to microscopic sizes and made of silicon, which allows them to behave the same way as their larger siblings without the need for high voltages, but preserving the low noise and extremely high frequency operating capabilities of tubes. They also operate at ten times the speed of current transistors. They can function at a frequency range comparable to vacuum



tubes, but with the efficiency and reliability of normal transistors. Their operating principles are simple – they shrink vacuum tubes down to such a size that the distance an electron must travel from the anode to the cathode is shorter than the distance an electron must typically travel before striking an air molecule. This allows them to operate at room temperature without the need for a seal, and at very low voltages because the distance traveled is so small. Still in their infancy, mass-produced vacuum transistor designs are a long way off, but someday in the future humanity might see powerful and efficient electronics made using vacuum transistors.

#### Sources:

- [1] http://www.technologyreview.com/view/518426/how-to-save-the-troubled-graphene-transistor/
- [2] https://www.youtube.com/watch?v=JzbMSR9vA-c
- [3] http://spectrum.ieee.org/semiconductors/devices/introducing-the-vacuum-transistor-a-device-made-of-nothing

# One liners...

You DX guys are beaming with pride, aren't you?

When pigs fly, they will have to communicate by ham radio and air traffic controllers will have to learn hog calling.



Courtesy of Brian, W9HLQ

## Pictures August 2014 Meeting and Hamfest 2014











































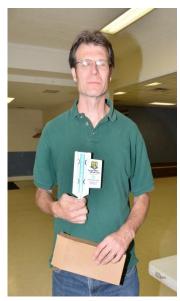


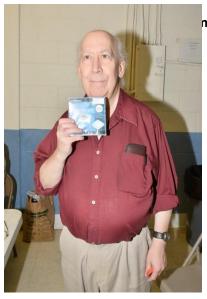














































































































































### Hamfesters Amateur Radio Club PO Box 474 Crestwood, IL 60445-0474 www.Hamfesters.org

# Hamfesters Radio Club



Club meetings are held on the first Friday of every month at the Crestwood Civic Center, 14025 Kostner Ave. in Crestwood, IL.

Meetings begin at 7:30 PM. September meetings may vary if our meeting date conflicts with the Crestwood Flower show.

Board Meetings: 7:30 PM on the 4<sup>th</sup> Monday of each month at the Crestwood Civic Center VE TESTING: Every 2<sup>nd</sup> Saturday of the Month at the Oak Forest City Hall, 15440 S. Central Ave. Testing begins at 9:00 AM but we ask that you arrive 10 minutes early. Exam fee is now \$15.00. Al N9ZD VE Team Chairman

### **Special Activities**

Hamfesters Big Peotone Hamfest: Our 79<sup>th</sup> annual Hamfest coming August 3, 2014-Will County Fairgrounds, Peotone, IL. Kerry AA9SB Hamfest Chairman.

Field Day: Join the W9AA crew for one of the best Field Days ever on June 28 & June 29 2014 at 115<sup>th</sup> and Oketo Avenue, Worth, IL. Jim KB9CYL Field Day Chairman WAHM: Worked all Hamfester Memberswork 10 Current members for a beautiful award certificate. Matt KC9JXC Awards



### **Nets/Contact Info**

10 METER NET: Every Sunday Evening at 8:00 PM on 28.410. Bob W9TOE is Net Control

2 METER NET: Every Monday Evening at 9:00 PM on 146.640. Tom KA9ZXN is Net Control

W9AA Mailbox:145.650 24 hours a day. Bruno K9QKB is Sysop. ILOAK:Node on 145.650

WEB SITE: <u>www.hamfesters.org</u> Webmaster Granville, W9PNG &Brian ,W9HLQ

Club's address: Hamfesters Radio Club P.O. Box 474 Crestwood, IL 60445 Patti KC9LYE Secretary