



The Greensboro Amateur Radio Association

# Feed Line

Providing Amateur Radio news for the Triad



Betty Williams , KC2BFN Editor

[www.w4gso.org](http://www.w4gso.org)[info@w4gso.org](mailto:info@w4gso.org)

## This Month's Program

Put February's meeting on your calendar now as you won't want to miss it. GARA's own Tom Bertolino, KB1P will be teaching us how to setup and use Echolink, the global repeater linking system that lets hams communicate even when their radios aren't nearby. GARA has its own Echolink node (currently named "K2CPR-R" in Echolink) that will let you use the W4GSO 145.150 repeater via your computer or smart phone, so understanding the system will help you to keep in touch even when you're away. As an added bonus, the K2CPR-R Echolink node works with both analog and Fusion/C4FM transmissions, so you can join in digital conversations even if you don't have a Fusion radio. Beyond W4GSO, you can use Echolink to connect to repeaters all over the world and make new friends with people from other countries and cultures- exactly what ham radio is all about! As always, the GARA meeting will begin at 7:15pm at Cooper's Ale House on Swing Road in Greensboro. Come early to eat. More details and directions are available on the [www.w4gso.org](http://www.w4gso.org) calendar. See you then!

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### NEXT MEETING Monday, Feb. 27th

The next meeting of the Greensboro Amateur Radio Association will be Monday, Feb. 27th, at Cooper's Ale House, Salon D Room, Wyndham Garden Greensboro, 415 S. Swing Rd. Greensboro, NC. This month's program: Tom KB1P will teach about setting up and using EchoLink.

# GARA Meeting Minutes

## Board Meeting Minutes – Feb. 2017

The GARA board of directors held their monthly meeting on February 13th 2017 at Coopers ale house located at 415 Swing road in Greensboro.

The members present were; Cameron Conover AJ4TW, Scott Toth KV4UP, Chris Thompson K4HC, Chan White KJ4ADX, Greg Ray KK4MHY and Jamie Restrepo N4JAI  
The meeting came to order at 7:00PM

Jamie inquired about our Dues structure, if they were adequate and how they compared to other clubs in the area. After a discussion it was concluded that our dues are similar to other local clubs and no further action was taken.

The NC QSO party was discussed and finding possible backup locations.  
Chris Thompson K4HC made a motion to adjourn. The meeting ended at 8:00 PM

Respectfully submitted by  
Greg Spencer KG4UQV  
GARA Secretary

### The Greensboro Amateur Radio Association

President Cameron Conover, AJ4TW  
Vice-President Scott Toth, KV4UP  
Treasurer Jaimie Restrepo, N4JAI  
Secretary Greg Spencer, KG4UQV  
Financial Chandlee White, KJ4ADX  
Engineering Chair Jesse Lindley, K4AX  
Operations Chair John Strandberg W4DX  
Members-at-Large:  
Chris Thompson, K4HC  
Gregory Ray, K4MHY  
*Appointed Position:*  
Public Information  
Officer  
Newsletter Editor  
Betty Williams KC2BFN

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### ARE YOU BENEFITING FROM THE ARRL WEBSITE?

A few topics to consider:

Logbook of the World  
International Operating  
Tutorials  
Special Event Stations  
Contests  
QSL Services

Explore the website [www.arrl.org](http://www.arrl.org) and learn something new or refresh something old.

# Regular Meeting Minutes – Jan. 2017

The Greensboro Amateur radio association held their regular monthly meeting on January 23<sup>rd</sup> 2017 at Coopers Alehouse located at 415 S. Swing Road in Greensboro.

Cameron Conover AJ4TW called the meeting to order at 7:15PM.

Cameron said that GARA will be participating in the NC QSO party contest this year instead of N4G.

Cameron added that if anyone would like to take over running the N4G special event station they should contact David Macchiarolo AJ4TF. Cameron gave a rundown of the NC QSO party rules. The Contest runs from 1500 UTC Feb 26<sup>th</sup> to 0059 UTC Feb 27<sup>th</sup> (10:00 AM to 7:59 PM local time).

Cameron spoke about the new SCOMM 7330 repeater controller and said the engineering committee will be working to get it on the air as soon as possible.

Cameron said that there is some used test equipment on the GARA website.

Tom Bertolino KB1P presented a slide of members who have renewed their dues for 2017.

Scott Toth KV4UP spoke about the Amazon smile link on the GARA website.

Jamie Restrepo N4JAI said he is making some changes he is making to make record keeping easier.

Chris Thompson K4HC said we need to set goals for ourselves, Try contesting, Upgrade, Expand your horizons, build something.

Scott introduced Brian Young KA9QJT who joined us via Skype. Brian spoke about the Odyssey of the mind event coming to Greensboro on April 1<sup>st</sup>.

Roger Joyner W4AYO made a motion to Adjourn, Chris Thompson K4HC seconded and the motion passed. The meeting ended at 8:04 PM

Respectfully submitted by  
Greg Spencer KG4UQV, GARA secretary

The [Cedar Creek Amateur Radio Club](#) in Athens, Texas, has purchased and distributed copies of [Ham Radio for Dummies](#) by ARRL Contributing Editor Ward Silver, N0AX, to area schools and libraries. The book now is in its second edition.

Financed in part by a grant from LDG Electronics, the club determined to place a copy of the book in nearly every school and public library in the tri-county area around Athens. Club member and former teacher Glenn Hughes, KF5CTG, took on the task of distributing the copies, visiting with librarians and school administrators as he made the rounds.

The activity caught the attention of *The Athens Review*, which published an [article](#) about it on February 15. (source arrl website)

# From the President's Shack

President's Shack February 2017

So much has gone on over the last couple of weeks, I don't even know where to start. It is a busy busy time for ham radio in Guilford County; I hope you are joining in.

First, I would like to mention our North Carolina QSO party participation. Hopefully, you are reading this before that has happened. It will happen on Sunday February 26th at Strandberg engineering. I tried unsuccessfully to secure us a spot at Guilford Courthouse National Military Park. This is the location where we enjoyed field day last year and years past, we also activated the special event call sign N4G from there. Most of you are familiar with that. Well, since last year they have a new chief at GCNMP, and it seems that he may not be so inclined to work with us. I was asked to rewrite my application, which I did, to include additional information, yet the chief still turned down our request to use the site to participate in NCQP. The same day I got that news I heard from Chan, KJ4ADX, that he had asked permission to use the Greensboro Red Cross Location for NCQP and it had been granted. So, that afternoon I headed over to look at the Red Cross site. That would be a challenging place to operate from, but I was very thankful to have the option. Chan really stepped up when we were in need, and I really appreciate that. In the future we should consider trying an operation of some sort from there; it would be good to have experience and knowledge of the site in the case that we were really needed there. When I reported some pictures of the site to the board, John Strandberg, W4DX, came forward offering his business location, Strandberg Engineering. That place looks just great for operating from, plenty of nice tall trees surrounding the building. I happily accepted John's offer on behalf of the club, and planning has been on-going since then. I believe Jesse, K4AX, and John are going to meet today, Wednesday, to look at antenna options there. So, Come out and get on the air for W4GSO in NCQP! Check out this link to our website to find the event details.

<http://www.w4gso.org/event/gara-participation-in-ncqp/>

Also, in the last week or so we have seen our friends at GAS temporarily lose their repeater; it went off air for about 24 hours. Thankfully Patrick, K2CPR, was on top of that situation and alerted the GARA board to the situation and suggested inviting them to use 145.15, which meant also inviting Skywarn, and Randolph ARS as well, since they are all dependent on 145.25. The entire board emphatically agreed with that and Patrick quickly passed along our invitation. Luckily the 145.25 repeater was only down for about 24 hours, it mysteriously recovered and our friends and neighbors were able to continue using their repeater. The problem with that as I see it, is that there was no repair, no diagnosis really, only speculation as to what the cause was. So I am asking GARA members now to be aware of that situation. If 145.25 goes down again please be aware that GAS, Randolph ARS, and Skywarn may all need to use 145.15 at a moment's notice. Be aware of that and be welcoming to our fellow hams. If they are in need of a repeater for a net, or for an emergency, they will always be welcome on 145.15. They have also let us know that is reciprocal, should we have a problem in the future that takes our repeater off of the air, we can use 145.25 as a back-up. This is all in the spirit of amateur radio and the comradery that it embodies.

What a busy month, I will see you at NCQP and if not there I'll be seeing you at the Club Meeting on Monday with a full report of our tallies from NCQP.

73!

Cameron Conover, AJ4TW

## VOLUNTEERS NEEDED...VOLUNTEERS NEEDED...VOLUNTEERS NEEDED

The start of the Ham Radio public service season is upon us. The 2017 Odyssey of the Mind State Championship will be held on Saturday, April 1st from 8am - 5 pm. GARA has been asked by the tournament staff to provide communications for the event. The tournament will be held at A&T University. Any of you who were at this month's meeting should already have a good idea what it is and what is expected since Brian Young, KA9QJT from the Raleigh club did a presentation for us. He has handled the eastern regional portion of the tournament in past years and again this year.

The Odyssey of the Mind is a high school science tournament. Participants will have, by this point, competed on the local and regional levels and will be competing at A&T for the state championship and the opportunity to go on to the national tournament. The NC Odyssey of the Mind website is <http://ncome.org/> in case you would like to learn more. Here's the specific link to the problem synopses for the 2017 tournament <http://www.odysseyofthemind.com/materials/2017problems.php>

We will need at least 16 HAMS for this event. We will be shadowing tournament personnel and relaying tournament information. We'll start the day at 7 AM with a volunteer meeting. The tournament runs well into the afternoon, with award activities around 5 PM. As individual problems are completed and their scores accounted for, we will be released along the way. A few of us will be needed right up to and sometimes including the awards ceremonies. They will provide lunch for us and there is the possibility of t-shirts also. As the finer details get worked out I will find out more. Please email me back indicating your ability to help and also let me know if you'd prefer a roaming or stationary position.

We'll have a portable 440MHz repeater on-site so an HT and adequate supply of battery power for the entire day is needed. Because many assignments are in locations where noise can disrupt the student performances, everyone should plan to use an earphone/headset. They are big concrete buildings with some terrain changes, so running a few watts vs. milliwatts may be necessary in some cases.

More specific information will be made available in the near future, as the plans come together. Thank you in advance and I look forward to hearing from you!

73,Patrick Moore, K2CPR  
Odyssey of the Mind 2017 Coordinator  
Greensboro Amateur Radio Association, [www.W4GSO.org](http://www.W4GSO.org)

## Amateur Radio Balloon to be Part of K2BSA Activities at 2017 National Scout Jamboree

A high-altitude Amateur Radio balloon, [K2BSA-11](#), will be launched from the 2017 National Boy Scouts of America Jamboree in West Virginia. The balloon is expected to reach an altitude of 48,000 feet and will transmit on 144.390 MHz APRS. An onboard GPS/computer will shift APRS frequencies based on the balloon's location around the globe.

Carrying out the July 20 launch from the Summit Bechtel Reserve will be Bill Brown WB8ELK; Keith Kaiser, WA0TJT, and other members of the K2BSA Radio Scouting team. They are hoping that the balloon will circumnavigate Earth. (source arrl website)

# February Engineering Update

It's February and some warm weather has arrived, and of course with warm weather brings new the start of planting new antennas in the trees! I started out this month with my part by shooting some lines for antennas at the location of the W4GSO NC QSO Party (NCQP) which will be held at Strandburg Engineering owned by John, W4DX. John and I were able to get some lines shot over the tallest trees on the property to give the crew Saturday a head start on antenna raising. By the time the Feedline is out, either all of this is in the past or maybe just getting ready to start. I hope we get a nice sized group of people out to participate in the event!

## *VHF Report.*

Matt KM4QPU and Cameron AJ4TW got together earlier this month to work on the controller and get it setup for testing. Matt has taken to the task of programming the controller and has done a great job of modifying the base script to get it setup for our repeater and the various settings, schedules, and macros we will need going forward. This past Saturday we went out to the repeater site to hook up the controller for on air testing, and at the conclusion I decided to leave it on the air so Matt can further clean up the script and get it ready for full time use.

In addition to the Scm 7330 controller, we also installed a analog noise squelch and CTCSS decoder made by Kevin Custer W3KKC. When it detects a strong signal that is full quieting with little to no picket fencing, it will slam the squelch shut quick enough that the user won't even hear it when they unkey. Stations that are weaker, such as mobile stations at the fringe of coverage, HT users, and so forth the squelch will loosen up some in case they drop out and come back in quickly. When they unkey they may hear the squelch action and in hearing this know they are not that strong in the repeater. The squelch function is performed by a Motorola Micor noise squelch chip, and the RX CTCSS decode is performed by a MX-465 chip on the board that also cleans up the RX audio path to reduce hum by taking the PL out of the audio path before the controller adds the 100hz back in for transmit. I think for analog FM, the Moto Micor squelch is probably one of the best solutions that can be added to any repeater for a low cost, making it a smoother sounding machine. Since it works off actual noise levels above the 4000 Hz range and not signal strength like the squelch built into the DR1x repeater, it's a better solution.

Our most immediate goal with this controller is to get the C4FM/FM mode switching in place, so that during nets digital signals will be transmitted in FM, giving those users the ability to have a clean sounding signal if they are in not strong into the repeater. Future use could be letting users have a macro to switch it to this mode, C4FM or FM in with FM only out, or AUTO/AUTO, any mode in, whatever is in is outputted (normal use). We also have not set the proper audio levels yet, in relationship to announcement audio, CW ID audio, and user audio levels, we hope to get this knocked out after we get through the NCQP event.

The Scm 7330 has a lot of voice DVR space on board, I think 11 minutes' worth total, in addition to 1600 words that we can choose from if we don't want to record our own. All of the programming will not be lost, like before on our previous analog controller if power is lost which has happened a couple of times in the last few years.

Jesse Lindley K4AX





## Welcome to the “Spotlight”!!!

Each month we will “spotlight” a new member and/or a current member of GARA. Hopefully you will learn something new about your fellow club members. The first featured members are the current Board members. How much do you really know about the people who govern GARA? The second group of Board members is listed below:

### **John Strandberg, Operations Chair**

John was born in Greensboro, NC and was originally licensed in 1983 as a Novice but he let that license expire. He has been licensed since 2007 and is an Amateur Extra. He makes a living in electronic instrumentation manufacturing but in his spare time he plays the guitar. His thoughts to the club members: “Our club members have significant experience and capabilities. Amateur radio offers an incredibly broad range of activities to pursue. If something interests you, ask someone who does it and give it a try yourself. Have fun!”

### **Jesse Lindley, Engineering Chair**

Jesse was born in Greensboro and has been licensed for 20 years; he is an extra class operator. A busy man who is the manager of the repair department for Sprint makes time out of his schedule to keep the repeater operational. If his occupation wasn't enough to keep him busy, he likes photograph, astronomy and, combining the two, astrophotography. He describes his special skills which have benefited the club: “General operating knowledge I guess. I've been breaking and playing with radios since I was a little one since my father (W4TR) has been involved in amateur radio my whole live. Most of my knowledge was learned from him, way before I ever bothered to get a license.” He would love to see GARA members more involved in activities together and “I think we the membership should come up with things to do more often, such as operating events, contests, fox hunting, or even just get together to talk radio over food and drink.”

### **Chris Thompson, Member-at-large**

Chris was born in Houston, TX but calls NC home. His family moved to Charlotte when he was 2 ½ in 1964 and to Greensboro in 1971. He has been a ham since the age of 15, Oct. 1976. His classification is Amateur Extra. After retiring from USCG as a Radioman, he now does desktop computer support. Here are his comments to the club members: “My hobby picked my job in the Coast Guard as a Radioman; I retired from that after 20 years as a Chief Petty Officer. My idea of the perfect day then was to work a 12 hour watch doing maritime CW, do some mobile amateur CW on the way home and then to relax once I got there, fire up the rig and do some CW. One of the best aspects of being a ham was no matter where I was transferred to, there was a group of people ready to welcome me to the new area.”

### **Gregory Ray, Member at Large**

Gregory was born in Winston-Salem and has been licensed since 2012, becoming an Extra in 2016. Besides Amateur Radio his interests vary: camping, vintage Airstream trailers, vacuum tube stereos and short wave radios, Guilford ARES/Aux. COMM. The skills he brings to GARA are repairing vacuum tube radios and tube amps, Emergency Communications and Emergency Management training. His advice to the current membership: Volunteer and volunteer.

## *Look Who Passed*

Every month on the second Saturday, except in March when it is the third Saturday, W4VEC holds a testing session for those who live in the area. This provides an opportunity for individuals to be able to test for their amateur radio license or upgrade. Thanks to David Macchiarolo, AJ4TF, and his team of volunteer examiners for taking time out of their busy schedules each month to help new or upgraded hams in our area.

Next month's testing session will be on Feb. 11th at Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, 27407, at 9am. While walk-ins are welcome contacting the lead VE is preferred. Please contact David Macchiarolo, AJ4TF, email [aj4tf@arrl.net](mailto:aj4tf@arrl.net), phone (cell), 336-420-9424.

If you cannot make it to this test session, W4VEC holds a second test every month in this area. Test sessions are held at 10am on the last Saturday of each month at the Red Cross High Point Chapter, 815 Phillips Ave., High Point, NC 27726. Walk-ins are welcome. Contact information is David Macchiarolo, AJ4TF, email [aj4tf@arrl.net](mailto:aj4tf@arrl.net), phone (cell), 336-420-9424.

***From High Point, NC Jan. 28, 2017***



Matthew R. Taylor, KB1BSR  
Pfafftown, NC  
Earned General

Eddie R. Conrad, KN4AMN  
Kernersville, NC  
Earned Technician

Jason A. Powell, KN4AMO  
Winston-Salem, NC  
Earned Technician

Jason KN4AMO also earned General class at the Greensboro testing on Feb. 22, 2017

***From Greensboro, Feb. 22, 2017***



Mark C. Ottelin KN4AFT  
Greensboro, NC  
Earned General

Dalmer M. Badgett KX4AU  
Greensboro, NC  
Earned Extra

Jeffrey W. Mericle KN4AWV  
Stoneville, NC  
Earned General

Joseph P. Holder KN4AWU  
Greensboro, NC  
Earned Technician



## UPCOMING HAMFESTS AND CONVENTIONS –

March 10-11: Charlotte Hamfest, Mecklenburg Amateur Radio Society, Concord, NC, <https://charlottehamfest.org/> April 15: 45th Annual RARSFest/ARRL Roanoke Division Convention, Raleigh Amateur Radio Society, Raleigh, NC, <http://www.rars.org/rarsfest/> April 22: 27th Annual Down East Hamfest, Down East Hamfest Association Inc, Kinston, NC, contact Byron Highland, K4BMH by phone at (252)347-1498 or by email at bhighland at nc dot rr dot com for further information.

April 28-29: 2017 SVHFS Conference, Southeastern VHF Society, Charlotte, NC, <http://svhfs.org> July 8: Firecracker Hamfest, Rowan Amateur Radio Society, Salisbury, NC, <http://www.rowanars.org/firecracker-hamfest/>

July 15: Mid-Summer SWAPFEST, Cary Amateur Radio Club, Cary, NC, <http://www.qsl.net/n4nc/>

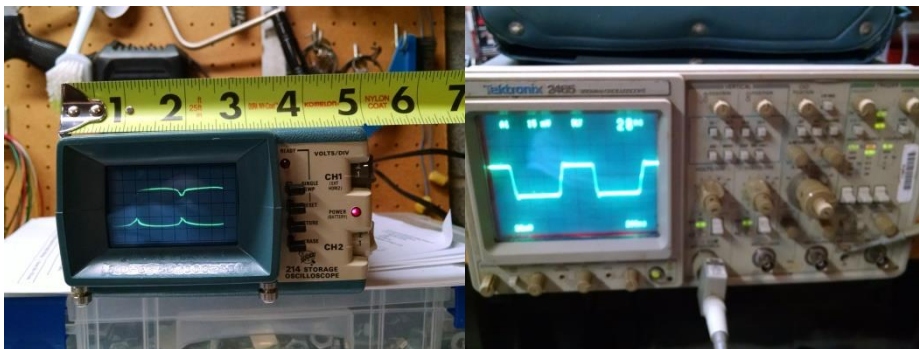
August 12: 19th Annual Cape Fear Amateur Radio Society Swapfest, Cape Fear Amateur Radio Society, Fayetteville, NC, <http://www.cfarsnc.org> September 1-3: 61st Annual Shelby Hamfest/ARRL North Carolina State Convention, Shelby Amateur Radio Club, Shelby, NC, <http://www.shelbyhamfest.org> It is not too early to apply for ARRL-affiliation of your club's 2017 hamfest! For more information, see <http://www.arrl.org/arrl-sanctioned-events> (source: ARRL website)

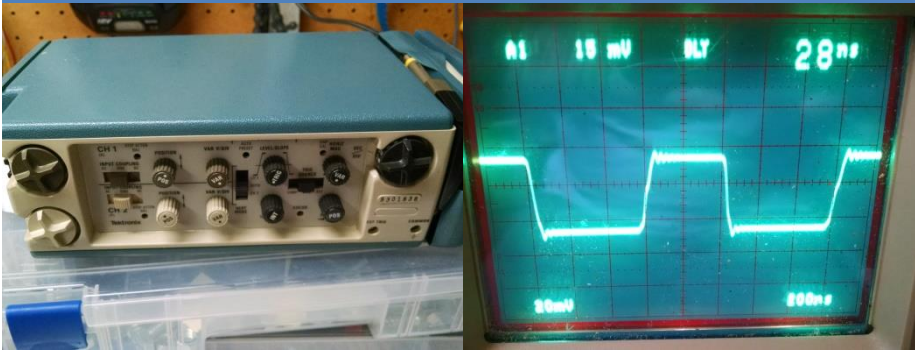
## *Equipment for sale*

For sale (for not a lot of money, just what you think they are worth to you. Make offer.)

1. Tektronix 214 portable storage (500 kHz) scope. 1970s technology. Works but battery needs to be replaced (works fine on AC). The hand-held of its day. Uses Tek's electrostatic screen storage technology. Goes for \$200 on E-Bay.
2. Tektronix 2465. 300 MHz, 4 channel scope. The peak of 1980s oscilloscope technology. Channel 2 input does not work, other 3 channels are OK (replacement input ICs seem to be available on E-bay). Bright CRT. AC power switch and input filter caps replaced in 2011. \$500 and up on E-bay.

Contact David, AJ4TF, if you're interested. ([336-420-9424](tel:336-420-9424)) Best offer takes one or both.





Used professional grade lab equipment from ITT liquidated assets. Used for educational purposes. In good condition and fully functional with only minor blemishes from normal use. Scopes, Counters, Bench Multi-meters, Function Generators, Variable Power Supplies and Computer Projectors. Multiples of 10 unique items.

Tested for Key Functions by technicians at ERD Ltd, Americas premier electronic repair facility located in Kernersville. Guaranteed to function when received. Includes power cord only. Cables, manuals and accessories not included. 30 day money back or replacement guaranty. E-mail or call Bill W1GY for further info or to purchase. [W1GYBILL@GMAIL.COM](mailto:W1GYBILL@GMAIL.COM) (860) 516-4945

### **SPECIAL EVENT STATIONS –**

April 7-9: 70th Annual North Carolina Azalea Festival, 0001Z-2359Z, AC4RC, Wilmington, NC. Azalea Coast Amateur Radio Club. 14.225 7.175 3.800; CW/Digital all bands. Certificate and QSL. Azalea Coast Amateur Radio Club, PO Box 4044, Wilmington, NC 28406. Confirmation of contact LoTW free; QSL card w/SASE; Certificate requires \$4 for postage and handling, QSL card may be included with certificate mailing if requested. <http://www.ac4rc.org/> Special Event Station listings in the NC Section newsletter are based on what appears on the ARRL website, see <http://www.arrl.org/special-event-stations> Please consider listing your Special Event Station at least 60 days before the event, see <http://www.arrl.org/special-events-application> Also, please let me know if your club is sponsoring a Special Event Station. Thanks! (source: ARRL website)

### **2017 Oregon Legislature: Senate Bill 2 & House Bill 2597 (same legislation)**

State Senator Peter Courtney (D-Salem) has sponsored and introduced Senate Bill 2 on operating a motor vehicle while using a mobile communications device. This is an amendment to the 2009 distracted driving bill passed by the Legislature. SB 2 removes the current exemption for amateur radio operators with licenses issued by the FCC and who are operating an amateur radio. Senate Bill 2 has been referred to the Senate Committee on Judiciary and subsequently to the Joint Committee on Ways and Means. No hearings have yet been scheduled.

It is very early in the legislative session but it is a good time for amateur radio operators in Oregon to politely contact their Senators and Representatives with a letter or email to let them know of your concerns and request that the current exemption for FCC licensed amateurs is retained. Your representatives and their contact information can be found at <http://gov.oregonlive.com/legislators/>. A copy of Senate Bill 2 can be found at <https://olis.leg.state.or.us/liz/2017R1/Measures/list/>. The Oregon Section website has additional information on our news page at [http://arrloregon.org/?page\\_id=557](http://arrloregon.org/?page_id=557)

We have assembled a team to work on this issue for you and will be closely tracking developments, providing testimony as needed and contacting the involved legislators, directly. The specific language that we are asking be included in the bill under section (3) is: (h) Holds a valid amateur radio operator license issued or any other license issued by the Federal Communications Commission and is operating an amateur radio.

When you contact your representative, please do so politely and thoughtfully, letting them know that you are asking that the current exemption be retained. I am interested in knowing of questions and comments you receive back from your correspondence.

Thank you for your support of Amateur Radio

John Core, KX7YT, ARRL Oregon Section Manager, [KX7YT@arrl.org](mailto:KX7YT@arrl.org)

## SILENT KEY

### Phillips, III, Benjamin "Ben" KD4LHL

GREENSBORO Benjamin "Ben" Bernice Phillips, III, 66, a resident of Greensboro, passed away on Wednesday February 8, 2017. He was born March 17, 1950 in Guilford County, the son of the late Benjamin Bernice Phillips, Jr. and Beth Heffner Phillips. Ben was a graduate of Page High School and founded Tritech Electronics, Inc. He was a veteran of the U.S. Air Force. Ben was a talented and gifted musician, playing keyboards for local groups. For several years, he was keyboard player for Bill Pinkey and the Original Drifters. Ben is survived by his former wife, Cindy; his daughter Amy P. Jordan (Kyle); grandchildren, Olivia Marie Jordan and Liam Alexander Jordan.

### Communication Satellite Pioneer Harold A. Rosen, ex-W5JKW, SK

Communication satellite pioneer Harold Rosen, ex-W5JKW, of Pacific Palisades, California, died on January 30. He was 90. Inspired by the USSR's launch of *Sputnik I* in 1957 that kicked off the space race in earnest, Rosen -- an alumnus of Tulane and Caltech -- foresaw the potential for such spacecraft to do more than transmit a beacon signal. An engineer with Hughes Aircraft (later Boeing), he, Thomas Hudspeth, and Don Williams developed a prototype geosynchronous communication satellite called *Syncom*.

NASA launched the first successful spacecraft, *Syncom II*, in 1963, and President John F. Kennedy spoke through the spacecraft with Nigeria's prime minister, marking the first conversation between two heads of state via satellite. *Syncom III* carried images from the summer Olympics in Tokyo in 1964.

Rosen became interested in electronics while in high school, and he built his own radio as a ham radio club project. At some point prior to World War II, Rosen obtained his Amateur Radio license and, according to a close friend, Stanley Pulitzer, W5JYK, was once regularly active on 40-meter CW. He let his license lapse as his post-war activities accelerated. Pulitzer said Rosen was his Elmer.

Rosen went on to oversee the development of some 150 communication satellites that revolutionized communication worldwide.

## Vanity Plate Regulation

North Carolina	Must have a current FCC Amateur Radio license. Vehicle must be titled in ham's name. Must have "purchased a portable radio unit suitable for use in emergencies." \More than one vehicle may be licensed with the same call (with suffix "-#"). \Tag says "Amateur Radio" and call sign. Download: <a href="#">Form</a> [PDF] from <a href="http://www.arrl.org">www.arrl.org</a>
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**Harold A. Rosen (R) with the engineer Thomas Hudspeth and the satellite prototype *Syncom* at the Eiffel Tower in 1961. [Boeing Aircraft photo]**

# Calendar of Events

Feb 27	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Mar 10	Charlotte Hamfest (Concord, NC, MARS, <a href="http://www.charlottehamfest.org">http://www.charlottehamfest.org</a> )
Mar 13	GARA Board Meeting
Mar 18	VE Session (Hinshaw United Methodist Church, Greensboro)
Mar 25	VE Session (Red Cross Building, High Point)
Mar 27	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Apr 1	Odyssey of the Mind State Tournament support POC Patrick Moore K2CPR
Apr 8	VE Session (Hinshaw United Methodist Church, Greensboro)
Apr 10	GARA Board Meeting
Apr 15	Roanoke Division Convention/ Raleigh Hamfest ( <a href="http://rars.org/rarsfest">http://rars.org/rarsfest</a> )
Apr 15	Catawba Valley Hamfest (Morganton, NC, <a href="http://cvhamfest.com">http://cvhamfest.com</a> )
Apr 22	27th Annual Down East Hamfest (Lenoir Community College, 231 Hwy. 58 South, Kinston, NC)
Apr 24	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Apr 28	2017 SVHFS Conference (Charlotte, NC, <a href="http://svhfs.org">http://svhfs.org</a> )
Apr 29	VE Session (Red Cross Building, High Point)
May 8	GARA Board Meeting
May 13	VE Session (Hinshaw United Methodist Church, Greensboro)
May 22	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
May 27	VE Session (Red Cross Building, High Point)
May 27	DurHamFest ( <a href="http://dfma.org/index.php?option=com_content&amp;view=article&amp;id=402&amp;Itemid=16">http://dfma.org/index.php?option=com_content&amp;view=article&amp;id=402&amp;Itemid=16</a> )
Jun 10	VE Session (Hinshaw United Methodist Church, Greensboro)
Jun 12	GARA Board Meeting
Jun 24-25	Field Day Place TBA
Jun 24	VE Session (Red Cross Building, High Point)
Jun 26	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Jul 8	VE Session (Hinshaw United Methodist Church, Greensboro)
Jul 8	Firecracker Hamfest (Salisbury, NC, <a href="http://www.rowanars.org/firecracker-hamfest/">http://www.rowanars.org/firecracker-hamfest/</a> )
Jul 10	GARA Board Meeting
Jul 15	Mid-Summer SWAPFEST (Cary, NC, <a href="http://www.qsl.net/n4nc">http://www.qsl.net/n4nc</a> )
Jul 24	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Jul 29	VE Session (Red Cross Building, High Point)
Aug 12	VE Session (Hinshaw United Methodist Church, Greensboro)
Aug 12	19th Annual Cape Fear Amateur Radio Society Swapfest (Fayetteville, <a href="http://www.cfarsnc.org">http://www.cfarsnc.org</a> )
Aug 14	GARA Board Meeting
Aug 26	VE Session (Red Cross Building, High Point)
Aug 28	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)

The purpose of this calendar to provide information on events in and around our area that might be of interest to our readers. As you might expect, there are many more events (public service, hamfests, flea markets, etc.) taking place in North Carolina and around the Greater Greensboro Area. If you know of an event that would be of interest to our readers, please contact Tom, KB1P at [kb1p@arri.net](mailto:kb1p@arri.net).

# Area Happenings

**FOURTH MONDAY** – at 6:30 pm, the Greensboro Amateur Radio Association have their regular monthly meeting at Cooper's Ale House, 415 S. Swing Rd., Greensboro, NC 27410. Please plan to gather at 6:30 pm for dinner. The meeting is scheduled to start at 7:15 pm

## CLUB NETS:

**SUNDAYS** – at 8:30 pm, the Technical Forum on the 145.150; at 9pm, the GARA News and Information Net. This net features News Line and is on the 145.150, W4GSO repeater. Patrick Moore K2CPR is always looking for net controls. Contact him if you would like to help.

**TUESDAYS** – at 8:30pm The Triad SkyWarn Net meets on the 147.225, K4ITL repeater, no tone required.

**TUESDAYS** – at 9pm, the D-STAR Net meets on 442.8625 (W4GSO B and Reflector 54C)

**WEDNESDAYS** – at 8:45pm, The Guilford Amateur Society Rag Chew Net holds their weekly net on the 145.250, W4GG repeater with an 88.5 Hz. tone. Jim Hightower, W4JLH is the net control.

**THURSDAYS** – at 9pm, The Guilford County ARES Net meets on the 145.150 repeater (100 Hz. tone).

## OTHER ACTIVITIES:

**FIRST MONDAY** – The Guilford County A.R.E.S. monthly meeting is held at 1002 Meadowood St. off W. Wendover Ave, in the EMS building, beginning at 7pm.

**THIRD MONDAY** – at 6:15pm The Guilford Amateur Society holds their monthly meeting at Tex & Shirley's Restaurant in Friendly Shopping Center. Eat at 6:15pm and the business meeting begins at 7pm.

**THURSDAY** – at 11:15am, Greensboro Hams get together for lunch. Thursday lunch group is meeting at the K&W Cafeteria, 300 Forum VI Mall at Friendly Shopping Center. Talk-in is on the 145.150, W4GSO repeater with a 100 Hz. tone.

**EVERY FRIDAY** – at 8pm (approximately) Greensboro Hams get together for coffee at Starbucks at Edney Ridge Rd.

## GARA REPEATERS

145.150 MHz - offset, 100 Hz. tone

442.8625 MHz. + offset, Digital D-Star

## The W4VEC Testing Schedule Mar. 2017 to June 2017

Mar. 18, 2017

Apr. 8, 2017

May 13, 2017

June 10, 2017

Location: Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, NC

Time: 9:00am

Contact: David Macchiarolo

Phone: 336-420-9424

E-mail: aj4tf@arrl.net



## Greensboro Amateur Radio Association

P.O. Box 7054

Greensboro, NC 27417

[www.w4gso.org](http://www.w4gso.org)

## FIRST CLASS MAIL

*The Official Publication of GARA*