



The Greensboro Amateur Radio Association

Feed Line

Providing Amateur Radio news for the Triad



Brian Wilson, NX4U, Editor

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GARA Open House

by Tom Bertolino, KB1P

The Greensboro Amateur Radio Association (GARA) will be holding its Annual Open House on Saturday, October 11, 2014 at the Hinshaw United Methodist Church, 4501 High Point Road, Greensboro. The Open House starts with Amateur Radio license testing at 9 AM with exhibits opening at 10 AM and closing at 4 PM. Admission to the exhibits is free.

The purpose of the Open House is to acquaint people with amateur radio by providing information on; how to obtain an amateur radio license, demonstrating on-air capabilities with modern radio technology, and how amateur radio assists government agencies in emergencies.

Some of the exhibits are; Amateur Radio Emergency Services (ARES), radio operations with 5 watts or lower (QRP operations), worldwide operations with a hand held radio (D-Star operations), and Digital operations (PSK 31).

You do not have to be an Amateur Radio Operator (a Ham) to attend. If you want to learn more about amateur radio, this is the place to be. Mark it on your calendar.



This Month's Program

Our September Meeting will be held on Monday, September 22nd at 7:15 pm in Captain Bills Seafood & Steakhouse located at 6108 West Market Street in Greensboro. Come early have dinner and catch up on the latest club info, gossip, and connect faces to call signs.

The presentation topic for this month is: "Operating techniques for SSB, pile ups, QRM, and filters" by Cameron Conover, AJ4TW. Cameron will offer tips on how to work through pile ups and QRM and how the use of filters can help with these problems. Some reminders:

- GARA's Open House, October 11th, 10 am to 4 pm at Hinshaw United Methodist Church, 4501 High Point Rd, Greensboro.
- GARA has new name badges; you can get yours at any meeting.
- If your ARRL membership is up soon or you want to join ARRL, you can do it through GARA. Renewal/ Join forms are available at this meeting. Craig Bondy, N8STA, GARA's treasurer will have the forms with him.
- Don't forget GARA's Technical Forum held every Sunday night at 7:30 pm. The Forum is hosted by Layman Idol, KK4LLY.

NEXT MEETING Monday, September 22

The next meeting of the Greensboro Amateur Radio Association will be Monday, September 22nd, at Captain Bill's Seafood & Steakhouse, 6108 West Market Street, Greensboro, NC 27409, between Guilford College Road and Swing Road. The program for this month's meeting will be "Operating techniques for SSB, pile ups, QRM, and filters" by Cameron Conover, AJ4TW.

GARA Meeting Minutes

Regular Meeting Minutes August, 2014

The Greensboro Amateur Radio Association held their monthly meeting on July 28, 2014, at Captain Bills Seafood Restaurant located at 6108 West Market Street in Greensboro. Tom Bertolino, KB1P, called the meeting to order at 7:15pm. Tom asked that every one identify themselves.

CLUB BUSINESS and OFFICER REPORTS

Cameron Conover, AJ4TW, spoke about the website committee and asked for volunteers. Contact Cameron at AJ4TW@arrl.net. Greg Spencer, KG4UQV, had nothing to report. Craig Bondy, N8STA, said we have 92 paid members

David Macchiarolo, AJ4TF, said there have been reports that the D Star repeater is not as sensitive as it should be. David said he will be doing some checking of the equipment soon and he suspects that it may be a bad pre amp.

Allen Bradley, KD4IUN, spoke about the K4NSC station at the Greensboro Science center. Allen said that all of the radios at K4NSC belong to the science center except for one radio which is on loan from GARA.

Tom went over the scheduled events for the next few months. Tom said that elections are coming up; Patrick Moore, K2CPR, will be heading the nominating committee.

David Macchiarolo, AJ4TF, gave a presentation on Circuit simulation using Spice

Linda Worland, KK4LHH, made a motion to adjourn, Allan Kaplan, W1AEL, seconded and the motion carried. The meeting closed at 8:10pm. *Respectfully submitted by Greg Spencer, KG4UQV, GARA Secretary.*

Board Meeting Minutes September, 2014

The GARA board of directors held their monthly meeting on September 8th 2014 at Captain Bills. The members present were: Tom Bertolino, KB1P; Cameron Conover, AJ4TW; Todd Smith, AK4TS; Jesse Lindley, K4AX; Roy Smith, N4BYU; Fred Lomax, KV4PI; David Macchiarolo, AJ4TF; and Greg Spencer, KG4UQV. Visitors at the meeting were: Layman Idol, KK4LLY; John Strandberg, W4DX; Betty Williams, KC2BFN; and Dan Williams; N2LGH.

Tom called the meeting to order at 7:01pm. Tom introduced Betty who is GARA's new public affairs officer and John who is organizing the open house. Cameron said he is organizing a website committee. Craig Bondy, N8STA, was not present so Tom read the report for him.

Todd said he is waiting on the new website to be set up for the implementation of an online pay pal link. Todd also brought up some fund raising ideas.

Greg had nothing to report. David said he had emailed the engineering report to the board and asked if we had any questions about it.

Roy suggested offering anyone advertizing in the The Feed Line the option of paying \$100.00 per year instead of \$10.00 per month. Roy also said it would be nice if more board members checked into the News and Information Net. Fred said that he has updated GARAs QRZ page. Fred said he wants to put something together for the science fair at Nathaniel Green School next year.

Jesse questioned how the pay pal invoicing system works if someone makes cash or check payment.

John briefed the board on the plans for the upcoming Open House. Tom said he has invited some Boy Scouts to the Open House. Betty said she will send an announcement to the local radio and TV stations. We discussed ways to promote the Open House. Tom said he will talk to Jim Waynick, N4JLW, about scheduling.

Tom said he is still waiting for clarification on GARAs tax id number from the IRS.

Tom said he has been in touch with the Boy Scouts representative concerning their upcoming merit badge college on November 22nd. They would like to have some help with the radio merit badge. Tom has offered GARA's assistance, volunteers are welcome. Tom said he will pursue this in more detail next week.

Jesse made a motion to adjourn Cameron seconded and all were in favor. The meeting closed at 7:45pm. *Respectfully submitted by Greg Spencer, KG4UQV, GARA Secretary.*

The Greensboro Amateur Radio Association

President Thomas Bertolino, KB1P
Vice-President Cameron Conover, AJ4TW
Treasurer Craig Bondy, N8STA
Secretary Greg Spencer, KG4UQV
Financial Todd Smith, AK4TS
Engineering Chair David Macchiarolo, AJ4TF
Operations Roy Smith, N4BYU
Member-at-Large Fred Lomax IV, KV4PI
Member-at-Large Jesse Lindley, K4AX
Appointed Position:
Webmaster & Newsletter Editor
Brian Wilson, NX4U

The Feed Line is ©2014 by the Greensboro Amateur Radio Association and published monthly. Our address is P.O. Box 7054, Greensboro, NC 27417. The purpose of the newsletter is to provide the club and prospective members information about the club and amateur radio in general. Material and information should reach the editor by the first Friday of the month for the next edition of the newsletter. Opinions expressed in "The Feed Line" do not necessarily represent the views of the officers, directors, editor or members of the Greensboro Amateur Radio Association. Material may be reproduced, provided proper credit is given to GARA.

News Briefs That Effect the Ham Community Weldon on The Wyndham

Wyndham golf tournament. Below is a list of the media hits. The photo is from the first article in the Greensboro News and Record.

On Weldon Fields, W4AJT remembering the first PGA golf tournament in Greensboro, in 1938, see http://www.news-record.com/sports/pro_sports/wyndham/article_f8a87ce2-1f45-11e4-90d3-0017a43b2370.html

On Weldon Fields, W4AJT celebrating along with the Wyndham golf tournament in Greensboro, see

http://www.journalnow.com/sports/golf/wyndham/year-old-volunteer-celebrates-along-with-wyndham-tournament/article_cdc8822c-7124-50cf-8347-2caacebccdb7.html

On Weldon Fields, W4AJT being interviewed by Scott Walker, GOLF channel, about the first Wyndham Championship in 1938, see

<http://www.pgatour.com/video/2014/08/13/weldon-fields--100--remembers-first-wyndham-championship.html>

On Weldon Fields, W4AJT being interviewed about volunteering at the first Wyndham Championship in Greensboro (transcript), see

http://www.asapsports.com/show_interview.php?id=101870

On Weldon Fields, W4AJT and the first Greater Greensboro Open in 1938, see

<http://www.wralsportsfan.com/100-year-old-fields-recalls-first-greater-greensboro-open-in-1938/13890824/>

On Weldon Fields, W4AJT and the Wyndham Championship in Greensboro, see

<http://www.wxii12.com/news/local-news/piedmont/wyndhams-100year-old-volunteer/27462986/#!bLhLLF>



New Amateur Radio Vanity Call Sign Fee

The FCC has adjusted very slightly downward - to \$21.40 – its proposed Amateur Service vanity call sign regulatory fee for Fiscal Year 2014. In a June Notice of Proposed Rule Making (NPRM), the Commission said it was planning to hike the current \$16.10 vanity fee to \$21.60 for the 10-year license term. The FCC released a Report and Order and Further Notice of Proposed Rulemaking (R&O) in the proceeding on August 29, in which it recalculated the fee to \$21.40 for the 10-year license term. The \$5.30 increase still represents the largest vanity fee hike in many years.

The new \$21.40 fee does not go into effect until 30 days after the R&O is published in The Federal Register.

In the R&O, the FCC said it considered eliminating the regulatory fee for Amateur Radio vanity call sign applications but decided not to do so “at this time,” because it lacks “adequate support to determine whether the cost of recovery and burden on small entities outweighs the collected revenue; or whether eliminating the fee would adversely affect the licensing process.” The Commission said it would reevaluate this issue in the future to determine if it should eliminate other fee categories.

The FCC’s Wireless Telecommunications Bureau sets the vanity call sign regulatory fee using projections of new applications and renewals, taking into consideration existing Commission licensee databases, such as the Universal Licensing System (ULS) database.

The FCC reported there were 11,500 “payment units” in FY 2014. The Commission said the vanity program generated an estimated \$230,230 in FY 2013 revenue, and it estimated that it would collect nearly \$246,100 in FY 2014.

The vanity call sign regulatory fee is payable when applying for a new vanity call sign or when renewing a vanity call sign, although some older vanity call signs are not subject to the regulatory fee.

From the President's Shack

Although this year is winding down, GARA's activities are not. On, Oct 11th, GARA holds its annual Open House and in November we have two scheduled events. The first event in November is scheduled for the 22nd and called "The STEM Merit Badge College". The college helps scouts to prepare for merit badges. This event is sponsored by Guilford District, Old North State Council BSA. GARA will man the Radio Merit Badge station. The second event is GARA's annual elections held during the November 24th General Meeting.

The Open House is on track. John Strandberg W4DX, the POC for this event, is in the process of finalizing the exhibits, however, John is still looking for volunteers to help; setup/take down exhibits, Hams to help with the information booth, and Hams to act as guides. If you are interested in helping John you can contact him at w4dx@arrl.net.

One of the requirements of the Radio Merit Badge is for a scout to visit a broadcast radio station or an amateur radio station. GARA has invited area scouts to our open house so they can meet this requirement. When scout visits either the QRP or the PSK exhibit, he will meet this requirement.

GARA has agreed to run the Radio Merit Badge station at The STEM Merit Badge College. This station will help boy scouts prepare to meet the requirements for achieving a Radio Merit Badge. Not knowing the requirements for the Radio Merit

Badge, I research them. I was surprised to find how closely the requirements for this merit badge align with the requirements for a Technician's License. I was also surprised that the Boy Scouts of America have a three part slide presentation which is designed to help prepare the scout for the radio badge.

I will be meeting with Colin Lemon, the Boy Scout's Guilford District Director, to discuss; what will be GARA's role in helping the scouts meet their requirements for the radio badge, and to clarify GARA's requirements at The STEM Merit Badge College. If you are interested in helping GARA prepare Boy Scouts to earn a Radio Merit Badge, please contact me at kb1p@arrl.net.

GARA's annual elections will be held during November's General meeting. David Macchiarolo, AJ4TF, Engineering Chairman and Craig Bondy, N8STA, Treasurer have decided not to run for reelection. If you are interested in running for one of these offices or any other GARA office, please let me or a board member know.

David and Craig thank you for your years of service to GARA. I will miss working with you both, and hope in the future you will make the decision to run for another GARA office.

On a brighter side I would like to announce that Betty Williams, KC2BFN, as stepped up and volunteered to be GARA's Public Affairs Officer. When you see Betty lets thank her for volunteering.

Tom Bertolino, KB1P

President, GARA

September, 2014



BOY SCOUTS OF AMERICA

Congratulations! You 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 Roy Smith, N4BYU, and a group of volunteers, each month there are new or upgraded hams in our area.

In September, there were two(2) who passed their test(s), and earned either their Technician, General or Extra class license.

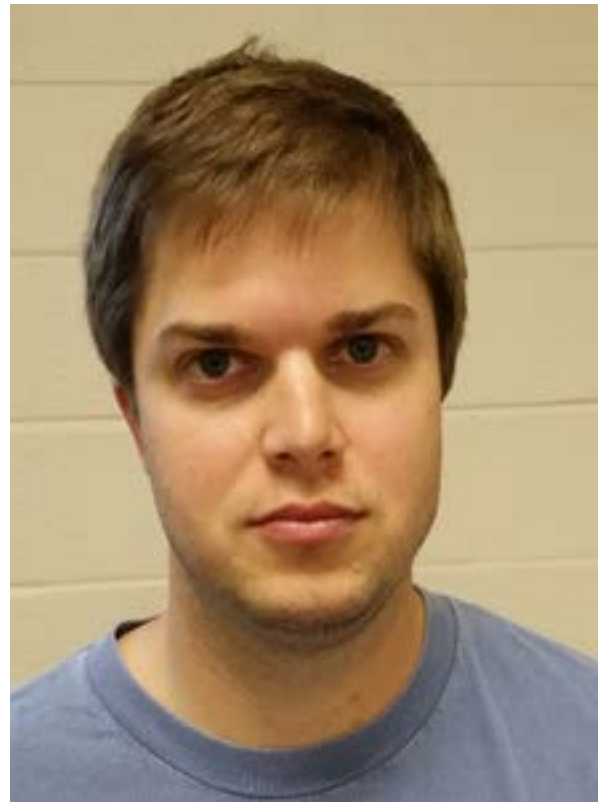
Next month's testing session will be on October 11th at Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, 27407, at 9am. While walk-ins are welcome contacting the lead VE is preferred. Please contact Roy Smith at (336) 312-0647 or by email at n4byu@arrl.net

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 277262. Walk-ins are welcome. Contact information is Bob Williams, KB4TWG, email robwilliams@northstate.net, phone (cell), 336-812-5500.

Photos Courtesy of Tom Bertolino, KB1P, and/or Roy Smith, N4BYU



***Corey Harding - KM4EFP
Passed Tech***



***Phillip Mayhew - KM4EFO
Passed General***

Engineering Update for September, 2014

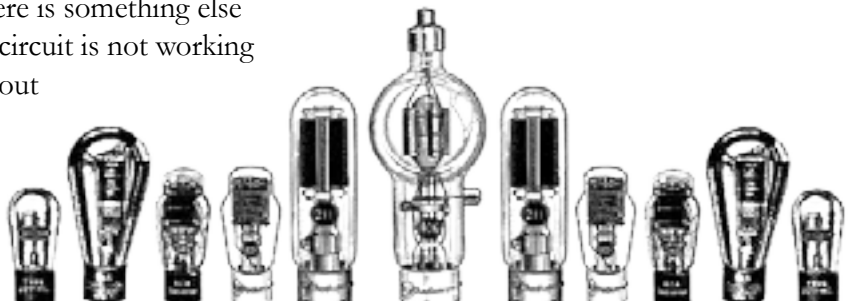
From David Macchiarolo, AJ4TF

Wow, it's hard to believe 2014 is almost 3/4 over!

I still have not done much this summer in the way of amateur radio, but I have been reading a lot about inexpensive (<\$30) GPS receivers that can be used as frequency references. These modules were designed for radio-controlled quadcopter drones, so they are relatively small. Just search the interweb for "Ublox NEO-7M Module". Just a few years ago, a high precision frequency standard costs tens of thousands of dollars, and required a rack mounted chassis. Look how far we have come!

Continuing on the 'look how far we have come' thread, you can now buy a 0 to 70 MHz direct digital synthesizer module that can output a sine or square wave signal for less than \$25. Combine that with an inexpensive mixer, and one of those RTL-2832 USB receiver dongles, you have an HF-to-UHF capable receiver, spectrum analyzer, etc. Lots of good winter project ideas, right?

I recently went to the shack of W4AJT, Weldon, to help him diagnose a problem he was having with his 1 kW linear amplifier (a Drake L4B). He was only getting about half the expected power out of it, and the plate voltage meter on the amplifier was reading low. He was concerned that something happened to the high voltage plate power supply. Using a 1000:1 high voltage divider probe, we were quickly able to determine that the high voltage power supply was actually working, and that there is something else wrong with the amplifier... the metering circuit is not working correctly, and the tubes are only putting out about half-power. It might be time for a new set of 3-500 tubes, so if anyone has some laying around that you might want to give to a good cause, I am sure that Weldon would appreciate it.



UHF (D-STAR) REPEATER

We are still operating on the borrowed power amplifier, and it is still working well. I'll let you know when I get the original amp back and get it installed.

Soon, I plan to do some testing on the D-Star receiver. I have assembled a cadre of fixed attenuators, they total up to 100 dB. I plan to use the IC-92 D-Star HT set on its lowest power setting (100mW = 20 dBm) connected to the attenuator string, through the HT antenna, to generate a very low level signal into the repeater's antenna system, while monitoring it at the site. By monitoring what the repeater's receiver is seeing, and alternately turning the RX preamp on and off, I will hopefully be able to determine if the preamp and the receiver are working as expected. I'll report when I am able to accomplish this.

Back in May, I told you about the gateway computer's database which was growing larger every month, and how I reset the database by running a script that came from the US Trust Server Team that basically erases and reloads the "external" part of the database: the part that gets updated every 15 minutes and shows at which repeater every D-Star user is located. I have been watching the disk space usage since then, and it has remained stable, and is no longer growing like it was.

see Engineering, page 6

Engineering (continued from page 6)

VHF REPEATER

Although I don't listen to it during the whole day, my impression is that the interference on the VHF repeater has diminished. If someone has a different view, we would appreciate specifics (where were you, time of day, your operating conditions, etc.)

The club has an on-line problem reporting system that is available to members to submit reports of repeater operation or any other concerns. You can find this on the club web site.

As always, if you have any questions or concerns about your club repeaters, either VHF or D-Star, or any other technical topic, please contact me at aj4tf@arrl.net.

73 from the GARA Engineering Committee!

THE GREENSBORO AMATEUR RADIO ASSOCIATION

FREE!

YOU'RE INVITED

TO AN OPEN HOUSE

Saturday
October 11, 2014
10 a.m. - 4 p.m.
at
Hinshaw United Methodist Church
4501 High Point Rd.
Greensboro, NC 27407

GARA
GREENSBORO AMATEUR
RADIO ASSOCIATION

W4GSD-STAR
442.8625 MHz

- Displays of Amateur (Ham) Radio
- Amateur Radio Emergency Service
- Skywarn - Storm Spotting for the National Weather Service
- On-air demonstrations
- New and modern radio technology
- Information about obtaining/renewing your license
- Representatives from various amateur radio organizations

Whether you're a formerly or presently licensed amateur, or a complete newcomer to the hobby, this will be a chance for you to catch up on technology and what's going on in the Amateur Radio hobby.

If you have any questions please e-mail us at:
info@w4gso.org

Our web site is:
www.w4gso.org

Talk-in:
145.150 Mhz. 100 KHz tone
D-Star - 442.8625 Mhz.

Ham Radio
in the 21st Century

SKYWARN

Are you receiving GARA emails?



GREENSBORO AMATEUR
RADIO ASSOCIATION

GARA sends periodic emails with club news and announcements. If you use Gmail, you may be overlooking our emails! Gmail has added a new feature called **Tabs** to your inbox. This feature is designed to make your inbox easier to manage by using different tabs to automatically organize your incoming mail into categories. This new organization causes emails from GARA to end up in the **Promotions** tab, rather than in the **Primary** mailbox. Here's a tip you can use to help ensure your email is delivered to the **Primary** tab.

- ① Go to the Promotions tab
- ② Find an email sent from "GARA-Greensboro Amateur Radio Association", (or sent from "events@w4gso.net")
- ③ Left-click and hold on the email, and drag it from the Promotions tab over to the Primary tab
- ④ Release the mouse and the email will drop into the Primary tab
- ⑤ Gmail will display a yellow box asking if you want to make this change permanent. Click **YES** to ensure that all messages from GARA appear in the Primary tab going forward.

DID YOU TAKE OUR SURVEY ?

GARA wants your feedback and opinions about possible future meeting program topics, or other meeting comments. If you did not yet take our brief survey, please do so by visiting

<http://tinyurl.com/GARAsurvey>

Calendar of Events

- Sep 22 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- Sep 27 VE Session (Red Cross Building, High Point)
- Oct 11 VE Session (Hinshaw United Methodist Church, Greensboro)
- Oct 11 GARA's Open House (Hinshaw United Methodist Church, Greensboro)
- Oct 12 Maysville Hamfest (Rotary Park Community Center, 704 8th Street Maysville, NC)
- Oct 13 GARA Board Meeting
- Oct 25 VE Session (Red Cross Building, High Point)
- Oct 27 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- Nov 8 VE Session (Hinshaw United Methodist Church, Greensboro)
- Nov 10 GARA Board Meeting
- Nov 17 JARSFEST (American Legion Complex, Hwy 30, Benson, NC, <http://jars.net>)
- Nov 24 GARA General Meeting (Captain Bill's Seafood & Steakhouse, Greensboro)
- Nov 29 VE Session (Red Cross Building, High Point)
- Dec 8 GARA Board Meeting
- Dec 13 VE Session (Hinshaw United Methodist Church, Greensboro)

This 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@arrl.net.

Area Happenings

FOURTH MONDAY – at 6:30pm, the Greensboro Amateur Radio Association have their regular monthly meeting at Captain Bill's Seafood & Steakhouse, 6108 West Market St., Greensboro, NC 27409. Please plan to gather at 6:30pm for dinner. The meeting is scheduled to start at 7:15pm

CLUB NETS:

SUNDAYS – at 7:30pm, the **Technical Forum** on the 145.150;

- at 9pm, the **GARA News and Information Net**. This net features *NewsLine* and is on the 145.150, W4GSO repeater. Roy Smith, N4BYU 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 8:30pm, **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.

The W4VEC Testing Schedule Sept. to Dec. 2014

Sept. 13, 2014

Oct. 11, 2014

Nov. 8, 2014

Dec. 13, 2014

Location: Hinshaw United Methodist Church, 4501 High Point Road, Greensboro, NC 27407,

Time: 9:00am

Contact: Roy Smith

Phone: (336) 312-0647

E-mail: n4byu@arrl.net

GARA REPEATERS

145.150 MHz - offset, 100 Hz. tone

442.8625 MHz. + offset, Digital D-Star



Greensboro Amateur Radio Association

P.O. Box 7054

Greensboro, NC 27417

www.w4gso.org

FIRST CLASS MAIL

The Official Publication of GARA