



The Greensboro Amateur Radio Association

Feed Line



Providing Amateur Radio news for the Triad

Betty Williams, KC2BFN Editor

www.w4gso.orginfo@w4gso.org

This Month's Program

Well, now that another Field Day has passed and we're moving into the summer heat, it's time to get back to business and meet in the cool, refreshing air conditioning at Cooper's Ale House on Monday, July 24. If you're like me (i.e., not proficient in Morse Code), there's probably a mystique surrounding CW and using Morse Code in amateur radio despite the things you've read and heard. Even if you're an old pro, this month's presentation will be a treat that will bring a lot of good information. Our very own Chris Thompson, K4HC, will be speaking to the club about Morse Code, how to learn it, how to operate using it, and many other topics surrounding this mode. If you've never thought about learning Morse, if you've tried and stopped, or even if you've been operating with it using your computer and you'd like to jump into keying the dits and dahs yourself using the computer between your ears, this presentation is sure to encourage you to take that next step. Be sure to be there!

Thanks!

Scott

President Names FCC General Counsel Brendan Carr to Fill Vacant Republican Seat on Commission

President Donald Trump has announced plans to nominate FCC General Counsel Brendan Carr, a Republican, to fill one of the two vacancies on the Commission.

(from the ARRL newsletter)

NEXT MEETING July 24, 2017

The next meeting of the Greensboro Amateur Radio Association will be held at the Cooper's Ale House on Swing Road in Greensboro on July 24, 2017. The program will be on Morse Code and presented by Chris Thompson, K4HC. Dinner at 6:30 PM; meeting starts at 7:15 PM.

ARRL -- Your One-Stop Resource for Amateur Radio News and Information

[Join or Renew Today!](#) ARRL membership includes [QST](#), Amateur Radio's most popular and informative journal, delivered to your mailbox each month.

Subscribe to [NCJ -- the National Contest Journal](#). Published bi-monthly, features articles by top contesters, letters, hints, statistics, scores, NA Sprint and QSO Parties.

Subscribe to [QEX -- A Forum for Communications Experimenters](#). Published bi-monthly, features technical articles, construction projects, columns and other items of interest to radio amateurs and communications professionals.

Free of charge to ARRL members: [Subscribe](#) to the *ARES E-Letter* (monthly public service and emergency communications news), the *ARRL Contest Update* (bi-weekly contest newsletter), Division and Section news alerts -- and much more!

Find us on [Facebook](#). Follow us on [Twitter](#)

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 Positions:
 Public Information Officer
 Newsletter Editor
 Betty Williams KC2BFN

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 and learn something new or refresh something old.

The Feed Line is ©2017 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

GARA Meeting Minutes

Board Meeting Minutes – July 2017

The GARA board of directors held their monthly meeting on July 10th 2017 at the Coopers Ale House located at 415 Swing Road in Greensboro.

The members present were; Cameron Conover AJ4TW, Chris Thompson K4HC, Chan white KJ4ADX, Jaime Restrepo N4JAI, Betty Williams KC2BFN, Greg Ray KK4MHY, John Strandberg W4DX and Greg Spencer KG4UQV.

The meeting started at 6:30 PM.

Cameron suggested giving certificates of appreciation to members who have helped run events. Jaime said he would work on a design.

We discussed having a table at the Shelby hamfest to sell some more of the donated equipment. Chan said he would revise the list of items to make it current. Chan will also recruit members who can help take things to Shelby and sell them.

Cameron said he would like to do another contest or operating event. We discussed some events coming up and Chris said we should do the N.C. QSO party again this year and John Strandberg said we could do it at his business.

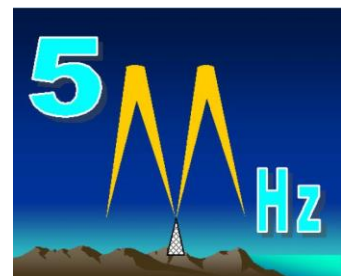
Chris Thompson K4HC made a motion to adjourn, Cameron Conover AJ4TW seconded and all were in Favor. The meeting ended at 7:08PM

Respectfully submitted by
Greg Spencer KG4UQV
GARA secretary.

Regular Meeting Minutes – June 2017

The regular June meeting of GARA was at the Field Day site. No notes were taken.

Belize, Cyprus, and Philippines Open 60-Meter Bands: Radio amateurs in Belize, Cyprus, and the Philippines now have access to 60-meter bands. In Belize, a secondary allocation of 5,351.5 to 5,366.5 kHz has become available with a maximum EIRP of 25 W. The Cyprus telecoms regulator, the Department of Electronic Communications, on June 30 updated the national frequency table to include the new WRC-15 secondary allocation of 5,351.5 to 5,366.5 kHz with a maximum EIRP of 15 W, as well as the secondary MW allocation of 472 to 479 kHz, with a maximum EIRP of 1 W. The Philippines Telecom Regulator, the National Telecommunications Commission, has granted amateur access to 5,351.5 to 5,366.5 kHz under ITU footnote 5.133B, with a maximum EIRP of 15 W. -- *Thanks to Paul Gaskell, G4MWO/The 5 MHz Newsletter*



From the President's Shack

President's Shack July 2017

Man, what a blast! Field day was super fun at Hagen Stone! Thank you to everyone who made it possible, I had a really great time! While I was at Field Day it occurred to me that we never really talked much about the results of NCQP, North Carolina QSO Party. We did a good job at NCQP, we needed maybe a few more CW contacts to win our class. We got 2nd in our class for NCQP, but, we had the most QSO's as well as the most Counties, which are our multipliers. So heads high GARA, we gave them a run for it. We were beat out by Cape Fear ARS who must have had a higher percentage of CW contacts than we did. Everyone who participated for NCQP, I think agreed that they would like to do it again. I hope we do! And I hope we win! Maybe next year we'll do the whole Carolina weekend as a club that would be fun!

		CLUB-IN-MIXED-LP	Score	QSO	Counties
K4MN	CUM	Cape Fear Amateur Radio Society	190250	689	63
W4GSO	GUI	Greensboro Amateur Radio Assn.	185720	703	70
K4EG	ALA	Alamance Amateur Radio Club	52208	270	46
N4LNR	CAL	Lenoir Amateur Radio Club	31664	205	44
W4BFB	MEC	Mecklenburg Amateur Radio Society	21156	173	17

Field day went very well also; I think we topped out at 1002 QSO's for Field Day 2017 after removing the dupes. I really enjoyed the camp out type atmosphere at field day, it was nice. We had a campfire at night and even roasted marshmallows. There was a big army truck even, doesn't get much better than that. If you were worried about getting around at that field day site, it's not too bad really. You can pull your car right up to the site and there are picnic tables and plenty of shade right there at the site. I hope we can use that same site next year, it was great fun.

We've had a lot of fun operating our radios this year, getting on the air, that's what it's all about. So to that end, we've been discussing the possibility of doing yet another operating event before the end of the year. A couple of options have been tossed around, but if you are interested in a particular event please come out this Monday to the club meeting, maybe we can decide on one and get the ball rolling. I'll see you there!

73

Cameron, AJ4TW

FINANCE COMMITTEE REPORT

We are looking for volunteers to attend the Shelby Hamfest on September 1-3 2017. GARA is planning to rent a table indoors to sell off more of our accumulated equipment donations for support of the GARA budget.

Location of Fairgrounds: 1751 E. Marion Street, Shelby, NC 28152 Approx. 35 miles west of Charlotte Douglas International Airport.

If you are interested in going, even if only for one day, please contact me: Chandlee White, Finance Chair, AccessInformationServices@gmail.com

July Engineering Report

I had a great time at the GARA Field Day event this year, and those the weather wasn't perfect as always we still had a great time and worked loads of contacts. Conditions this year were much better than last year, and as an added bonus due to the site we chose, the man made noise was nonexistent, so it was much easier to hear weak stations calling us back. I'm already looking forward to next year's event!

145.150 VHF FM/C4FM

The past month we have lost power at the repeater site a few times, causing issues, like I explained last month. The main problem with the VHF repeater is that when it comes back online, the transmit doesn't work. The times it's happened we really have not had the time to really trouble shoot the issue as the quick fix has been a power cycle to get back on the air quickly. This is a problem we will be trying to sort out in the future, but we have the ability to things working again remotely if it happens.

442.8625 Dstar repeater

This month I'm cutting my report short due to the write up Steve K4SQI, the Dstar admin/guru submitted. Steve has been doing a lot of work with the Dstar gateway computer the past month, as he details below. The engineering committee is very grateful for the work Steve has done and we look forward to what may be coming in the future. Thanks Steve!

What's new with the W4GSO D-Star Repeater?

I'm happy to say that since the power outage that seemed to cause a great deal of havoc on both of the W4GSO repeaters and the N4DUB DMR repeater, that things are finally back to normal with the W4GSO D-Star repeater. Everything that was working before is up and going along w/several new enhancements and additions to the repeater.

First, the repeater is now connected to ircddb.net network. Great, but what does that do? Great question. Over the years, D-Star has grown leaps & bounds. Besides all the regular Icom D-Star repeaters, there are also 2-3 times more repeaters that are run on home-brewed equipment. This is where the ircDDB network is important.

ircDDB Plug In - Provides the following:

- Real Time updates of the IP address of gateways.
- Realtime reporting of the last transmission of stations on ircDDB connected gateways.
- Ability to callsign route to/from non-Icom (G2) gateways.
- Access to STARnet Digital networks.

Next up, I've installed Monlink on the gateway as well.

Monlink - Is a software package written by Ken Adkisson WB4FAY. It monitors the dplus.log file and provides many functions including periodic voice announcements of the current Dplus Link. These are intelligent announcements and will wait until the channel is clear for 90 seconds before transmitting. Monlink will also reconnect a Dplus link that drops due to an internet connectivity issue. At any time a local RF user can set their URCall to "W4GSOI" to make Monlink announce the current Dplus link. Please note that Monlink does not operate when the g2_link software is running.

The big advantage of it, is if/when someone chooses to link the repeater to a DPlus reflector and forgets about it or "life gets in the way," after a period of time where there's no activity, the repeater will automatically disconnect from whatever DPlus reflector it was linked to. There's a great deal of additional features included in the Monlink software as well.

FEEDLINE

The biggest update to the Repeater is we now have the ability to link the repeater properly to both XRF/DCS reflectors besides the standard DPlus reflectors. When I say "properly," I mean we did have this capability in the past, but there was always issues when it came to unlinking from whatever XRF/DCS reflector the repeater was connected to and the Controller would get in a stuck in a loop for a short time before it finally disconnected. To fix this, I upgraded the g2_link package. So how do you take advantage of connecting and disconnecting to the XRF/DCS reflectors?

The conventional L, U and I commands (in the 8th position of the URCALL field) are used by dplus. So new commands had to be introduced for use with the g2_link software to prevent things from getting confused.

O for ON (Example: XRF054CO)

T for Terminate (Example: _____T)

and W to query status (Example: _____W)

With the addition of being able to connect to XRF/DCS reflectors, there's a "second" dashboard on the W4GSO D-Star gateway that shows the status of the system when linked to XRF/DCS reflectors. You can get to this dashboard separately or the new combined, "side by side" dashboard. Here's the links:

<https://w4gso.dstargateway.org> <--- Standard D-Plus Status Page

<https://w4gso.dstargateway.org/fs.html> <--- New G2_link XRF/DCS Status Page

<https://w4gso.dstargateway.org/sidebyside.html> <--- Combined Status Page

The last update, which has actually been on the gateway some time is the "Quickie Registration" setup which is meant to make the registration for D-Star as simple and painless as possible for new users. Using the link below, someone who wants to register for D-Star can simply input their Call Sign, First & Last Name, as well as an email address. When they hit Submit, the system automatically checks to see if the user is already registered or not. If they aren't registered somewhere else, Jesse, K4AX gets an email notification and can complete their registration request. Thanks goes to Ken, KC4YOZ and Roland, W9HPX for this new setup! Here's the link:

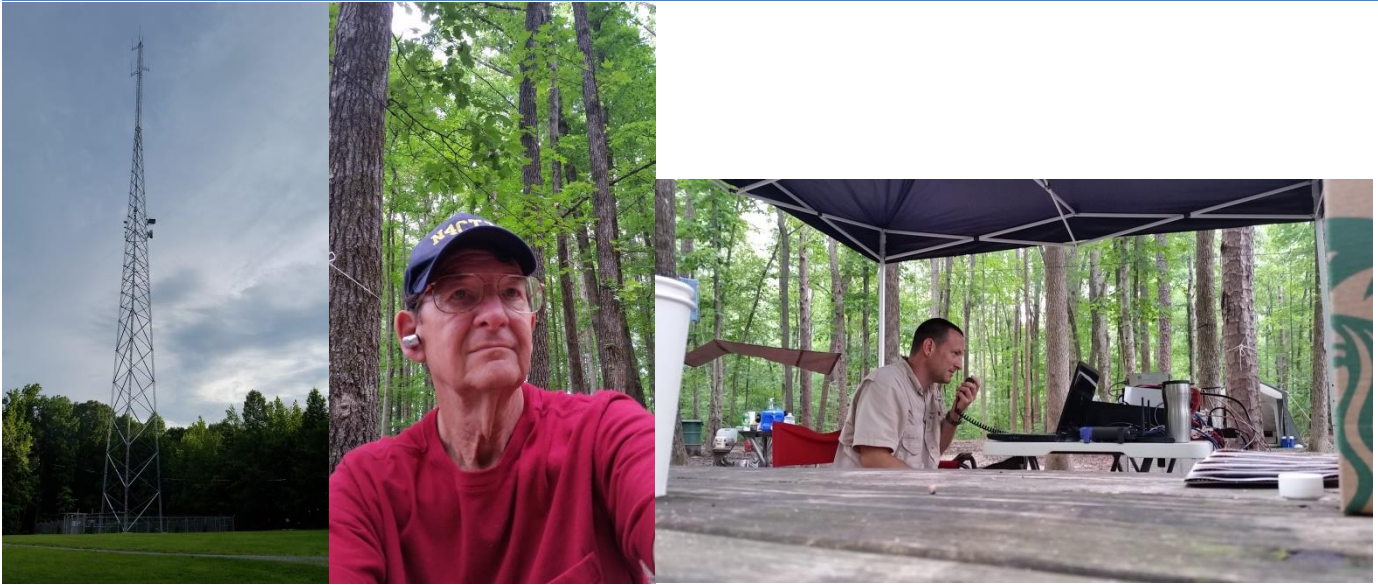
<https://w4gso.dstargateway.org/cgi-bin/quickreg>

If you have any questions about any of the new features added to the D-Star repeater/gateway feel free to ask me on the repeater, or drop me an email. 73 de K4SQI!

Jesse K4AX
Engineering Chair



Fred Lomax KV4PI and Thomas Grohal KV4AK at the Field Day site



Ham Radio Aviator WB6RON Reaches Halfway Point of Round-the-World Flight

Texas radio amateur and pilot Brian Lloyd, WB6RQN, is right on schedule on his commemorative Amelia Earhart [round-the-world flight](#). He reached Darwin, Australia in his airplane *Spirit* on July 1, in time to enjoy local hospitality as well as some Territory Day celebration events, including a fireworks display. Greeting Lloyd upon his arrival in Australia was Stuie Birkin, VK8NSB, who had been in contact with Lloyd on 20 meters while he was still aloft. *(from the ARRL newsletter)*

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 August 12th 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, 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 277262. Walk-ins are welcome. Contact information is David Macchiarolo, AJ4TF, email aj4tf@arrl.net, phone (cell), 336-420-9424.

Results from Greensboro, NC VE session July 8th



John Feole, KN4EKO
Technician

Matthew L. Gleason KN4EKP
Technician

Sandra L. Hamel KN4CXW
General



Jonathon D. Player KN4EKQ
Technician

John Powell KA4CYW
General

Carl M. Root KN4EKR
Technician

Christopher A. Jones K4CAJ, General – No picture available

International Lighthouse Lightship Weekend Registrations Top 200 and Rising

Registrations for the 2017 International Lighthouse Lightship Weekend ([ILLW](#)) have topped the 200 mark for the August 19-20 event. The ILLW is 20 years old this year, and with a bit more than 6 weeks to go, nearly 250 planned operations have registered throughout the world. During the annual event, Amateur Radio stations will be on the air from -- or in the immediate vicinity of -- various historic lighthouses and lightships in more than 25 countries. In past years, more than 500 stations in some 90 countries have taken part.



"Many enjoy linking portable Amateur Radio to the navigational beacons for shipping traffic of the past, and in doing so, help raise public awareness of the need to preserve the old structures," Jim Linton, VK3PC, remarked.

The Polish DX Club will mark the milestone anniversary as 3Z20ILLW, with six club members at the Jaroslawiec Lighthouse, Poland's oldest, on the Baltic Sea. In West Malaysia, the Borneo Amateur Radio Club will activate Tinagat Lighthouse for its first time, as 9M6SDX.

Registration guidelines call for operating sites to be officially listed as aids to navigation. That could include a classic lighthouse or lightship with a Fresnel lens, fog horns, time ball towers, and lighthouses or lightships moved to museums. According to the ILLW site, "lights such as range lights, channel markers, skeletal towers, and breakwall lights will probably not be accepted." Registration for the event is not required, but it does let other participants know which lighthouses and lightships will be active. Sponsors stress that the event is *not* a contest -- and there are no prizes, certificates, or other enticements to participate. Each station's operators decide how they will operate their station with respect to bands and modes, and participating stations do not have to be on the air for the entire weekend.

Activity does not need to take place inside the structure itself. A Field Day-style setup at the light or other building adjacent to the light is sufficient. "Adjacent means next to or as close as possible," event guidelines explain. "The intention behind this requirement is that the station should have a visible presence to the passing public who may be visiting the lighthouse over the weekend. Permission to operate from a lighthouse/lightship should be obtained from the relevant authorities." -- *Thanks to Jim Linton, VK3PC*

UPCOMING HAMFESTS AND CONVENTIONS

- ✓ July 29: WCARS Hamfest 2017, Western Carolina Amateur Radio Society, Waynesville, NC, <http://wcars.org/>
- ✓ August 5: 20th Annual Catawba Valley Hamfest, McDowell Amateur Radio Association, Morganton, NC, <http://www.cvhamfest.com>
- ✓ 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 upcoming hamfest! For more information, see <http://www.arrl.org/arrl-sanctioned-events> (source: ARRL website)

SPECIAL EVENT STATIONS

- ✓ August 3-6: 20th Anniversary Catawba Valley Hamfest, 2300Z-2100Z, W4R, Morganton, NC. Catawba Valley Hamfest Association. 28.400 14.250 7.200 3.840. QSL. Tom Land, 4515 Diamond St, Hudson, NC 28638. Some CW in the Novice/Tech portions of each band. Possibly some digital and SSTV too.
- ✓ May operate on VHF frequencies also, CW and Voice. www.cvhamfest.com 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> (source: ARRL website)

Jamboree on the Air Marks 60 Years this Fall

"60 Years Connecting Scouts" is the theme for the Boy Scouts' 2017 Jamboree on the Air ([JOTA](#)), set for October 20-22. JOTA Coordinator Jim Wilson, K5ND, said the theme "recognizes the start of the event in 1957 and commemorates its growth in participation and in the expanding communication channels that are activated on the third weekend in October." The official JOTA patch will be available by July 19. The JOTA-JOTI (Jamboree on the Internet) patch is available now.

Wilson said JOTA's "communication channels" now include Amateur Radio on the air and via internet-based channels, as well as many other internet-based options, including social media, ScoutLink and IRC chat services, Skype, and more. "It also recognizes the goal of the event -- connecting Scouts so that they can engage in conversations with other Scouts across town and around the world," Wilson said. "This allows them to discover geographic and cultural differences and similarities. Plus, they are exposed to the technology that makes all this happen." The World JOTA-JOTI Team said it would announce "a number of weekend activities supporting the 2017 theme."

JOTA participation last October was up from 2015's numbers. According to the final JOTA report, 10,761 Scouts took part -- an increase of more than 50% from a year earlier -- and the number of stations filing reports, at 267, jumped by 28% from 2015 (the record was 271 in 2013). The number of Amateur Radio operators was up by 14% to 1,120, although the number of radios reported in use dropped by 25% to 631. Total JOTA 2016 contacts remained flat at 8,254. -- *Thanks to JOTA Coordinator Jim Wilson, K5ND*



Calendar of Events

Jul 24	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Jul 29	VE Session (Red Cross Building, High Point)
Jul 29	WCARS Hamfest (Waynesville, NC http://wcars.org/)
Aug 5	20th Annual Catawba Valley Hamfest (Morganton, NC http://www.cvhamfest.com)
Aug 12	VE Session (Hinshaw United Methodist Church, Greensboro)
Aug 12	19th Annual Cape Fear Amateur Radio Society Swapfest (Fayetteville, http://www.cfarsnc.org)
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)
Sep 1	North Carolina State Convention (Shelby, NC http://www.shelbyhamfest.org)
Sep 9	VE Session (Hinshaw United Methodist Church, Greensboro)
Sep 11	GARA Board Meeting
Sep 25	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Sep 30	VE Session (Red Cross Building, High Point)
Oct 9	GARA Board Meeting
Oct 14	VE Session (Hinshaw United Methodist Church, Greensboro)
Oct 23	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Oct 28	VE Session (Red Cross Building, High Point)
Nov 11	VE Session (Hinshaw United Methodist Church, Greensboro)
Nov 13	GARA Board Meeting
Nov 25	VE Session (Red Cross Building, High Point)
Nov 27	GARA's Election (Cooper's Ale House in Salon "B", Greensboro)
Dec 9	VE Session (Hinshaw United Methodist Church, Greensboro)
Dec 11	GARA Board Meeting (transition meeting)
Dec ?	Area Ham Christmas (holiday) Party TBA
Dec 25	No GARA General Meeting this month
Dec 30	VE Session (Red Cross Building, High Point)
Jan 8	GARA Board Meeting
Jan 13	VE Session (Hinshaw United Methodist Church, Greensboro)
Jan 22	GARA General Meeting (Cooper's Ale House in Salon "B", Greensboro)
Jan 27	VE Session (Red Cross Building, High Point)
Feb 10	VE Session (Hinshaw United Methodist Church, Greensboro)
Feb 12	GARA Board Meeting
Feb 24	VE Session (Red Cross Building, High Point)
Feb 26	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@arrl.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.

The W4VEC Testing Schedule June 2017 to .Sep.2017

Aug. 12, 2017

Sep. 9, 2017

Oct. 14, 2017

Nov. 11, 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

GARA REPEATERS

145.150 MHz - offset, 100 Hz. tone

442.8625 MHz. + offset, Digital D-Star



Greensboro Amateur Radio Association

P.O. Box 39829

Greensboro, NC 27438

www.w4gso.org

FIRST CLASS MAIL

The Official Publication of GARA