



The Greensboro Amateur Radio Association

Feed Line

Providing Amateur Radio news for the Triad



Julia Toth, Editor

www.w4gso.orginfo@w4gso.org

This Month's Program

I am getting an early start for Field Day 2019 by trying to reserve the group campsite at Hagan Stone that we used a couple of years ago. Hopefully reserving it this early will let us get the best location. As was mentioned at the last club meeting, Winter Field Day power was provided solely by solar charged batteries. As a result of that experience, several club members are investing in similar solar battery setups, so we should be able to do ARRL Field Day on battery power too. Also, we need a field day coordinator. Any volunteers?

This month Yakov Rokhlin (KN4RBN) will be talking about his experience as a radio operator in the former Soviet Army. Yakov is a new ham and GARA member and is working on upgrading to General, and on converting from Cyrillic CW to international Morse. As a young man, Yakov was drafted into the Soviet Army and served as a radio operator from 1978-1980. He learned Cyrillic CW (20 WPM) and operated mobile Army radio stations. He will share some interesting stories and information on the equipment he used. He and his wife immigrated to the US in 1999 and became citizens in 2007.

Dave McLin, AC4A
Vice President

INSIDE THIS EDITION

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New Hams

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NEXT MEETING February 25, 2019

The next meeting of the Greensboro Amateur Radio Association will be held at the Cooper's Ale House on Swing Road in Greensboro on February 25, 2019.

MEETING TOPIC:
SOVIET RADIO

From ARRL...

Antarctic Activity Week is Under Way

<http://www.arrl.org/news/antarctic-activity-week-is-under-way>



02/18/2019

Antarctic Activity Week (**AAW**) 2019 is under way until February 24, with special call signs on the air. The goal of the event is to promote interest in Antarctica, where many countries have established research facilities.

Some of the call signs to listen for are: Australia, VK2ANT; Austria, OE16AAW, OE88WAP, OE89ANT, and OE90AAW; Belgium, OR16ANT; France, TM16AAW, TM16WAP, and TM1ANT; Italy, I12ANT, I15ANT, IO5SP, IR18AAW, IR1ANT, IR4ANT, and IV3BOVE; The Netherlands, PA6ANT and PF19ANT; Poland, SP0ANT; Spain, AO1WAP, Ukraine, EM16UAP, and US, K4A, K4K, and KB0ANT. — Thanks to **The Daily DX**

FCC Update



Beginning March 1st 2019, the FCC is requiring all candidates applying for a new amateur radio license to create a user profile with the FCC and obtain an FCC Registration Number (FRN). Candidates will be required to do this PRIOR to attending an exam session. To see more information on this change, and instructions, please visit <https://www.fcc.gov/rofrn>.

The Greensboro Amateur Radio Association

President Scott Toth ND4L | **Vice President** Dave McLin AC4A | **Treasurer** Drew Paschal WB4IHY | **Secretary** Gregory Ray KK4MHY
Financial Committee Chair John Strandberg W4DX | **Engineering Chair** Matt Trull KX4GG | **Operations Chair** Open
Members-at-Large: Chris Thompson K4HC and Jesse Lindley K4AX
Appointed Positions: Public Information Officer/Newsletter Editor Julia Toth

The Feed Line is ©2019 by the Greensboro Amateur Radio Association and published monthly. Our address is P.O. Box 39829, Greensboro, NC 27438. 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

No Board Meeting in February

Regular Meeting Minutes

Cooper's Ale House

January 29, 2019

President Scott Toth began our January meeting at 7:15pm and asked for introductions.

Officers Present:

Scott Toth
Matt Trull
David McLin
Greg Ray
Drew Paschal

New Business:

GARA website domain renewal.
Changing website host.
New Feedline Editor, Julia Toth.
Operations chair still open.

Board Member Reports:

President Scott Toth asked for committee reports:
Vice President, David McLin asked for program suggestions for next year and you may email him with them. 2019 winter field day was successful with many contacts from Texas over to ND. David thanked Matt Trull for hosting the event at his property in Rockingham County. David hopes we can do this next year.
Finance- Drew Paschal mentioned 2019 club renewals could be made with a check or use PayPal.
Engineering Chair, Matt Trull reports the D star is up and working
Secretary, Greg Ray asked everyone to sign the GARA attendance sheet.
Scott Toth said a member with a drone would fly up to the antenna and inspect the leaning issue we have. Also Scott wants the repeater named after member Steve Bradford who recently died. He contributed a great deal to the Engineering Committee.

January Presentation:

Carl Fenske, KC4WGA described his solar-charged battery power supplies. It was used during Winter Field Day (WFD), Jan 26 and 27, for some extra points. We learned about solar panel basics, what to avoid, and how to put together our own system for operating or other purposes.

Scott Toth made a motion to adjourn; Matt Trull and George McCormick seconded the motion and the January GARA meeting adjourned at 8:10pm.

Respectively submitted by
Greg Ray, KK4MHY
GARA Secretary

From the President's Shack

Winter Field day turned out to be a big success for a number of reasons. First of all, Matt Trull's property worked very well for the event and allowed for open spaces with great privacy. Second, along with the January GARA meeting, everyone was able to see the value of solar generators first hand. Carl Fenske, KC4WGA supplied the solar setup which ran the station flawlessly for the entire event. I'm sure there are quite a few club members who have been bitten by the solar bug as a result. I know I have. You can learn about this interesting power source even if you missed the general meeting in January. Just navigate to the "News" page on www.w4gso.org and you can download Carl's presentation which contains all of the necessary information to build a solar generator of your own.

If you haven't heard by now, the new digital UHF repeater's dashboard is finally online. Viewing the dashboard in your web browser means that you can see who used the repeater last, which modes are enabled, and to which reflectors the repeater is linked. You can see the dashboard by visiting dashboard.w4gso.org. Hopefully this will be a useful addition to our repeater setup.

Speaking of the website: www.w4gso.org has been transitioned to a new host and is now running on a new server. Performance should be better and updates should happen more easily. This transition was necessary as our old host is ceasing operations on March 1. Many thanks to Brian Wilson, NX4U for his assistance in making this transition happen quickly and smoothly.

Finally, the GARA board has been busy trying to brainstorm of new ways to provide opportunities for club members to meet and operate together. Contests (or non-contests) like Winter Field Day, the NC QSO Party, the ARRL Field Day and others provide good reasons to get on the air as a group. The board is looking at obtaining gear over time that will belong to the club so that we're less dependent on using personal equipment for these events. Matt listed a list of items in last month's Feed Line. Would you consider donating an item or money towards their purchase? We would love to get together quarterly, and not needing to worry about collecting borrowed equipment will make doing that much easier.

73,
Scott Toth, ND4L
GARA President

Engineering Report

As David mentioned above, Field Day will be here before you know it. Several of us have purchased solar panels that we plan to use. These recent purchased were spurred on by Carl Fenske's recent solar presentation and especially by our experience at Winter Field Day. The small Honda inverter type generators are pretty quiet, but a solar/battery solution is completely silent. Not to mention that using solar eliminates the need for transporting fuel. A big thanks to Carl for his presentation, using his setup at Winter Field Day, and for facilitating the purchase of these recent panels for a few of us members. In my previous column I tried to put out some feelers to see if anyone would be interested in helping us build a set of club equipment to use for events such as Field Day. Perhaps some of you have items or money you would like to donate to this effort?

Both of our repeaters continue to operate well, although the VHF antenna is leaning. I have gotten the approval from the City to allow drone photography of the antenna and mount and I am working to coordinate with a local ham who has the equipment and expertise to make that happen. Hopefully our schedules align soon and we can get a better idea of what needs to be done to more permanently fix the antenna orientation.

Matt Trull, KX4GG
Engineering Chair

From ARRL...

KickSat-2 is Alive and Being Tracked

<http://www.arrl.org/news/kicksat-2-is-alive-and-being-tracked>

02/19/2019

For the first couple of days after the 3U KickSat-2 was deployed from Cygnus NG-10 last November, nothing was heard from the satellite. But in a February 16 post to AMSAT-BB, Nico Janssen, PA0DLO, reported receiving several short and weak transmissions from KickSat 2 – short telemetry bursts on 437.5077 MHz. Assistant Professor of Aeronautics and Astronautics at Stanford University Zac Manchester, KD2BHC, is the principal investigator for the KickSat project, which NASA adopted as an official mission.

“Yes, KickSat-2 is alive,” Manchester told ARRL. “We have been tracking it since Thursday, [February 14,] and have been able to decode at least some packets. The signal is weak and we think the antenna did not properly deploy on the CubeSat.”

KickSat-2 is scheduled to deploy up to 104 tiny Sprite satellites into low Earth orbit. The Sprites then would transmit on 437.240 MHz at 10 mW, communicating with each other via a mesh network and with command stations on Earth. The Sprites, which are less than 2 square inches, are expected to reenter Earth’s atmosphere within weeks. Manchester did not indicate if attempts would be made to deploy the Sprites.

NASA calls KickSat-2 a technology demonstration mission that’s designed to demonstrate the deployment and operation of prototype Sprite “ChipSats,” also known as “femtosatellites.”

The FCC recently imposed a \$900,000 penalty on a commercial concern, Swarm Technologies, for launching similar tiny satellites after the FCC had denied permission.

“These spacecraft are therefore below the size threshold at which detection by the Space Surveillance Network can be considered routine,” the FCC told Swarm Technologies.

Manchester had been trying without success to convince the FCC to allow him to deploy the Sprites from KickSat-2, but, apparently gun shy after the Swarm action, the agency denied permission at the last moment.

Once NASA adopted KickSat-2 as its own mission, however, the regulatory body shifted to the National Telecommunications and Information Administration (NTIA), and the launch went forward.

In the Swarm Technologies proceeding, the FCC has argued that satellites smaller than 10 centimeters on any side were too small, although the agency has been accused of inconsistency in its approach to licensing small satellites. KickSat-2’s Sprites are 3.5 centimeters on the side and just 0.2 centimeters thick. Manchester’s 2014 KickSat was unable to deploy its Sprites before deorbiting.

The FCC issued an Enforcement Advisory last April to remind satellite operators that they must obtain FCC authorization for space station and Earth station operations. The advisory cautioned satellite operators and launch companies against proceeding with launch arrangements following a license denial or prior to receiving an FCC authorization.

Manchester is reported to be developing a plan to deploy a group of small satellites to survey the sky in the LF radio range, something that cannot be done from the ground owing to the ionosphere.

VE Testing

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.

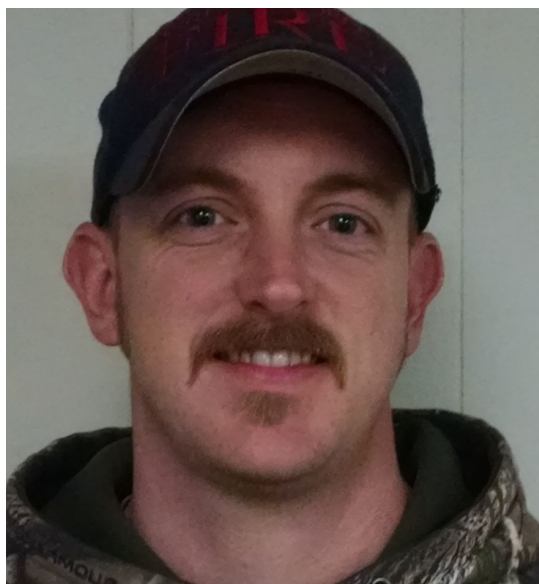
The next testing session in Greensboro will be on April 13th at Hinshaw United Methodist Church, 4501 Gate City Blvd., Greensboro 27407, at 9 a.m. While walk-ins are welcome, contacting the lead VE is preferred. Please contact David Macchiarolo, AJ4TF, email aj4tf@arrl.net, cell (336) 420-9424.

New location for High Point VE testing: Hickory Chapel Wesleyan Church, 301 Hickory Chapel Road (off MLK Jr. Drive), High Point 27262. **Pre-registration is required. Contact David Macchiarolo, AJ4TF, (336) 420-9424 at least two days prior to the session.** David's email: aj4tf@arrl.net.



Look Who Passed

Greensboro, NC VE Session - February 9, 2019



Eastridge, Jason P.
Danville, VA
Earned Technician



Hamm, Michael W.
KN4ROO
Winston-Salem, NC
Earned Extra



Payne, Edward A.
Kernersville, NC
Earned Extra (was previously unlicensed)



Pegram, Mark R.
Kernersville, NC
Earned Extra (was previously unlicensed)

From ARRL...

XX9D in Macau: And You Think Your Noise Problem is Bad

<http://www.arrl.org/news/xx9d-in-macau-and-you-think-your-noise-problem-is-bad>



02/18/2019

The group that's been activating Macau as XX9D for the past week or so reports its biggest challenge is not so much managing the pileups but *hearing* the pileups in the first place due to high noise levels. Nonetheless, the group has managed some 18,000 contacts on 160 through 6 meters, and the operators credit FT8 with making many of those possible.

"All team members are a little bit disappointed about the high noise level here on all bands," the XX9D team reported on February 18. Levels are mostly around S-7 – 9. It seems that this is man-made noise, which is about 10 dB stronger between 5 PM and 7 AM. You might imagine what problems we have to identify call signs under these lousy circumstances, which we are not able to solve. So, we have to lower our expectations."

The XX9D team also echoed the sentiments of other DXpeditioners regarding the behavior of those trying to work the 93rd most-wanted DXCC entity (according to Club Log).

"We got fair reports from all parts of the world," the XX9D group said in an update on its website. "But it must be hard for the callers to break through the noise wall on our side. Many callers wonder that they don't through even with a kW. But when 90 % of all callers transmit exactly 1 kHz up on CW, it is impossible for us to read anything. Bad comments don't help. It's more a question of bad practice."

The limited-space antennas are installed above the eighth story of a resort hotel, so the noise level was no real surprise, although it's far worse than during the 2014 XX9D DXpedition. On 160, 80, and 40 meters, XX9D is using wire verticals with elevated radials. The 30-meter antenna is a delta loop, and on 20 – 10 meters, the antenna is a wire beam. No receive antennas are possible.

Conditions at or near the low point of the current sunspot cycle aren't helping either. "We are working hard to get as many as possible callers in the log. Because of the lousy conditions we work much more in FT8," the 15-person mostly German team said.

The XX9D operators predict that activating Macau on the lower bands will be an even greater challenge in the future.

On 160, the operators may only transmit from 1,800 to 1,825 kHz, so they tried FT8 on 1,815 kHz with stations asked to transmit higher in the band (1,840/1,908 kHz). "From time to time we have our CQ beacon on 50.105 kHz on CW or 50.313 kHz on FT8 active and asks for listener reports (no log inquiries).

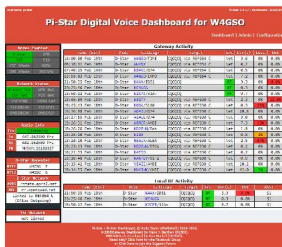
The XX9D operation from Grand Colane Resort is scheduled to continue until February 26. This operation is being called XX9D the Second. The same operators also activated the resort as XX9D in February of 2017.

Calendar of Events

Feb. 23 VE Session CANCELLED (Hickory Chapel Wesleyan Church, High Point)
Feb. 25 GARA General Meeting (Cooper's Ale House, Greensboro)
Mar. 8,9 Charlotte Hamfest (<http://charlottehamfest.org>)
Mar. 11 GARA Board Meeting
Mar. 23 VE Session (Hickory Chapel Wesleyan Church, High Point)
Mar. 25 GARA General Meeting (Cooper's Ale House, Greensboro)
Mar. 30 VE Session (Hickory Chapel Wesleyan Church, High Point)
Apr. 8 GARA Board Meeting
Apr. 13 VE Session (Hinshaw United Methodist Church, Greensboro)
Apr. 20 Raleigh Hamfest (<http://rars.org/hamfest>)
Apr. 22 GARA General Meeting (Cooper's Ale House, Greensboro)
Apr. 27 RV Radio Network Rally (<https://rvradionetwork.com>) (Linwood, NC)
Apr. 27 VE Session (Hickory Chapel Wesleyan Church, High Point)
May 11 VE Session (Hinshaw United Methodist Church, Greensboro)
May 11 Rockingham County ARC Swapfest (<http://n4iv.org>)
May 25 VE Session (Hickory Chapel Wesleyan Church, High Point)
May 27 GARA General Meeting (Cooper's Ale House, Greensboro)
June 8 VE Session (Hinshaw United Methodist Church, Greensboro)
June 22 GARA Field Day (Hagan Stone Park, Pleasant Garden)
June 22 GARA General Meeting CANCELLED for Field Day

The purpose of this calendar is 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 the Board of Directors at info@w4gso.org.

W4GSO UHF DIGITAL DASHBOARD



**W4GSO UHF
Dashboard
Now Online!**

Last November (2018), GARA installed its newest repeater: a Yaesu DR-1X modified to run digital modes using an MMDVM modem and running the now-ubiquitous PiStar operating system. This new setup, recently designated the “Steve Blackford, K4SQI Memorial Digital Repeater” by the GARA board of directors, replaced the aging D-star-only repeater that served Greensboro for ten years. While the repeater setup, which runs both D-star and Fusion/C4FM, has been working very well, until now there hasn’t

been a way to see to which reflectors the repeater is linked or tell who has used it recently. Thankfully that problem has finally been resolved. The repeater dashboard is now online and ready for you to use. Bookmark <http://dashboard.w4gso.org> for future reference.

Area Happenings

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

CLUB NETS:

SUNDAYS – at 8:30 p.m., the GARA Sunday evening net. This features a rag chew followed by News and Information including Amateur Radio Newsline. It is on the 145.150, W4GSO repeater. Scott Toth, ND4L is always looking for net controls.

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

TUESDAYS – at 9 p.m., the D-Star Net meets on 442.8625 (W4GSO B and Reflector 54C)

WEDNESDAYS – at 8:45 p.m., The Guilford Amateur Society Rag Chew Net holds their weekly net on the 145.250 W4GG repeater. Jim Hightower, W4JLH is the net control.

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

OTHER ACTIVITIES:

FIRST MONDAY – The Guilford County ARES monthly meeting is held at 1002 Meadowood St. off W. Wendover Ave, in the EMS building, beginning at 7 p.m.

THIRD MONDAY – The Guilford Amateur Society is currently looking for a new venue for their meetings. When found, that information will be posted here.

THURSDAY – at 11:15 a.m., 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 8 p.m. (approximately) Greensboro Hams get together for coffee at Starbucks at Edney Ridge Rd.

The GSO W4VEC Testing Schedule March - May 2019

No testing in March
Apr. 13th
May 11th

9:00 a.m.
Hinshaw United Methodist Church
4501 Gate City Blvd.
Greensboro, NC

Contact:
David Macchiarolo
(336) 420-9424
aj4tf@arrl.net

GARA REPEATERS

145.150 MHz - offset, 100 Hz tone, FM and Fusion

442.8625 MHz + offset, D-Star and Fusion



Greensboro Amateur Radio Association

P.O. Box 39829

Greensboro, NC 27438

www.w4gso.org

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The Official Publication of GARA