



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

Our speaker this month will be Donnie Hurst (KG4ZOD). Donnie will talk about HF nets and how to participate in them. Donnie is a member of and frequent contributor to several HF nets and has a lot of information to share.

As I noted in our last meeting, Field Day is fast approaching. I am still looking for a volunteer to run the Field Day preparations. Please let me know if you are interested.

Finally, I will be presenting a few ideas for other club activities during the year. Field Day is obviously a big one, but there are many other possibilities. Hopefully we can identify two or three more we can do this year in addition to Field Day.

I hope to see you at the meeting!

Dave McLin, AC4A
Vice President

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NEXT MEETING **March 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 March 25, 2019.

MEETING TOPIC:
HF Nets

From ARRL...

Norfolk Island Special Event DX Operation Set to Start on April 1

<http://www.arrl.org/news/norfolk-island-special-event-dx-operation-set-to-start-on-april-1>



03/20/2019

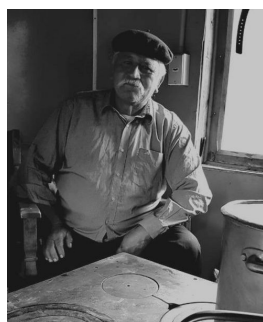
Antarctic Activity Week (**AAW**) 2019 is under way until February 24, with special call signs on the air. The goal of the event is to promote interest in Antarctica, where many countries have established research facilities.

A four-operator team will activate special event station VI9NI on April 1 to celebrate the 40th anniversary of the signing of the Norfolk Island Act. The Act granted limited self-government to the Australian external territory of Norfolk Island. The Act formally established the Norfolk Island Legislative Assembly and gave the Assembly powers to pass, amend, and repeal laws, and – subject to the assent of the Administrator of Norfolk Island – executive powers.

The activation will run from April 1 until April 14. Two stations will be on the air from 160 – 17 meters, with a focus on FT8, CW, and SSB. VI9NI will use WSJT-X version 2.01 in Fox/Hound mode (call only above 1,000 Hz).
– Thanks to David Burden VK3BDX/AC3CW

Radio Amateurs Aid Isolated Settler in Chile

<http://www.arrl.org/news/radio-amateurs-aid-isolated-settler-in-chile>



03/20/2019

Radio Club de Chile **reports** “a short story with a happy ending.” Don Martin, a settler living in an isolated location south of Cochrane – a town in Chile’s Capitán Prat Province – has a small government-issued radio that allows him to communicate locally. The set failed, however, and when an acquaintance learned of the problem, he contacted the Radio Club de Chile.

After some long-distance exchanges, club members were able to determine what was wrong and offered instructions on how to fix it. Their solution proved to be successful, and Martin was able to reestablish communication with Cochrane. He is reported happy and thankful to all who participated. – Thanks to Radio Club de Chile

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

In attendance: Drew, David, Matt, Jesse, Chris.

1. VHF antenna work: [MJT] Spoke to City contact who advised me to email the contractor they are working with for the tower light upgrade. I did so 5 days ago and did not receive a response. I emailed him again today and asked if we could have a short phone call to discuss our options and gave him my number. Hopefully I will hear back soon. I have also been in communication with Jamey about doing the drone photography. He is still on board to do that, it's just that the weather and our availability have not lined up yet. We are targeting this coming weekend. A replacement antenna, mount, etc would be around \$1000 plus the cost of engineering reports and the tower climber if we go at this all on our own. Hopefully the mount could be replaced and combined with the other tower work going on.
2. UHF repeater/duplexer/power amp - where are we with this? [MJT] Cameron has the new duplexer, which he was going to see if it could be tuned any further. I don't think he has had an opportunity to do that, but at this point it's worth putting in place to try. The new repeater also does not have the preselector that was on the old one, so that is an option as well. Need to coordinate a time to do this and have someone like Patrick available to test. The issue previous presented itself when he used the repeater from his QTH, which was a weak signal. Current plan is to see if we can get together a weekend with me, Jesse, and Patrick to make the swap and try a few things.
3. Increase in cost of internet- OK with it, or other options? [MJT] Board voted to just accept the new cost since our one year promotional period has ended. The service has worked well and been reliable. The only outage was the recent cable cut, which wasn't a service issue.
4. Field Day plans [MJT] David said there has not been a volunteer for Field Day Coordinator yet. The site has been rented at Hagan Stone.
5. Membership- roster, recruitment ideas, appointed position (membership director) [MJT] Chris recommended we define the responsibilities of the role before approaching someone to take it. I suggested that this person might send welcome communication to new members and a thank you communication to those that renew, which might include a summary of "here's how your membership fee supports the club."
6. Finances- donations (what we have and ideas to get more), other ideas for income [MJT] Jesse recommended that we enhance our donations page on the website to include information on donating equipment, including our ability to provide a donation letter for tax purposes, and our acceptance of equipment from Silent Key estates.
7. Tax filing, insurance renewal, etc. (Drew, I think) [MJT] There is question about when the insurance renews. Also we need to complete our inventory list update and submit to insurance. We started this last year but I don't know that the new list was submitted. Since then we have also replaced the UHF repeater equipment so it needs to be updated further anyway. Dave offered to help with this, and to that end I am attaching a copy of what I have so far.
8. Additional operating events [MJT] Jesse brought up the idea of an Open House event that might also help drive membership. We all supported the idea, although no formal plans were made.
9. Schedule a picnic? Combine with Field Day? Open House in the fall? [MJT] We would like to host a picnic. If combined with Field Day I asked that it be designated to someone other than those of us who are already setting up equipment and conducting the bulk of the operating. It's just too much for one of us to take on. I suggested that we might charge, at least \$5 per plate, depending on what we offer. This could help generate a few extra \$ for the club. Maybe we even charge a little extra and make it an official fundraising event?

Regular Meeting Minutes

Cooper's Ale House
February 25, 2019

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

Officers Present:

Scott Toth
Matt Trull
David McLin
Greg Ray
Drew Paschal

New Business:

New website host.
W4GSO UHF (Pi Star) Dashboard now online at the GARA website.
Operations Chair is still open.

Board Member Reports:

President Scott Toth asked for committee reports:

Vice President, David McLin noted Field Day is fast approaching. He is looking for a volunteer to run the Field Day preparations. Please let David know if you are interested. David noted we could make additional points by using battery-powered rigs.

Engineering Chair, Matt Trull reports our Internet service has increased by \$20 a month and is reliable. He is still working on a drone to fly by our antenna for inspection.

Secretary, Greg Ray asked everyone to sign the GARA attendance sheet.

Monthly Program: Soviet Army Communications

New Member KN4RBN, Yakov Rokhlin was born in the former USSR and served in the Soviet Army from 1978 to 1980. We learned about his radio equipment, called a R-105 transceiver. It was developed in 1948. It produced 1.2 watts using vacuum tubes and weighed in at 46 pounds. It had a range of 7 miles. Yakov also told us about learning Morse code using the Russian alphabet (Cyrillic).

Yakov mentioned a radar system called Dugar, named the Russian Woodpecker by the West. It was a Soviet over-the-horizon (OTH) radar system used as part of the Soviet missile defense early-warning radar network. The system operated from July 1976 to December 1989. Two operational Duga radars were deployed, one near Chernobyl and Chernihiv in the Ukrainian SSR (present-day Ukraine), the other in eastern Siberia.

https://en.wikipedia.org/wiki/Duga_radar

Here is a link to a YouTube video describing the radar. (GTR)

<https://www.youtube.com/watch?v=xbi6eoh63ZQ>

Scott Toth made a motion to adjourn; Chan White and Linda Worland seconded the motion and the February GARA meeting adjourned at 7:48pm.

Respectively submitted by
Greg Ray, KK4MHY
GARA Secretary

From the President's Shack

I don't know about you, but I really look forward to our meetings every month. I'm not really a "people person" *per se*, but I absolutely enjoy meeting with you and learning something new about radio. I hope you do too. It's especially good to meet new hams who are just getting their feet wet in the hobby; it's fun to relive the early excitement and have conversations about all that's new and interesting in radio. It's also fun to meet with those who have been around the block and can teach me how to do something better based on their experiences. I can't think of many other hobbies that bring all age and experience levels together so well.

It's because of this camaraderie and interest in learning that it's so easy to evangelize ham radio. Do you know someone who likes to tinker with microcomputers like Arduino or Beagle Bone? What about modelers who develop new and innovative lighting for their models? How about a software developer who codes for open-source projects on the side? Many interests lend themselves to finding enjoyment in amateur radio, but **you** might be the spark that ignites that interest in your friend, acquaintance or colleague. I would like to encourage you to invite anyone who enjoys technology (and even if he or she doesn't!) to our monthly meetings to come and see what radio is all about. We're also working to get more group operating events on the schedule, and those are great opportunities to showcase all that amateur radio has to offer.

Finally, and along the same lines: I've heard and talked with a few new hams on the W4GSO repeaters recently. What a great time! If you're out there lurking and listening and hear people you haven't heard before, give them a shout! You might be surprised at how much they'll appreciate talking to you and how much you'll enjoy learning about them. Let's keep the repeaters warm and the airwaves full!

73,
Scott Toth, ND4L
GARA President

Engineering Report

This past weekend I was able to coordinate with Jamey Hill, KN4QHR, who graciously provided some drone photography of our VHF antenna at the repeater site. From the pictures that were captured, it appears that the upper bracket has possibly slipped down enough that wind has pushed the antenna into a lean from the two brackets rotating on the tower leg. It is also possible that the two brackets were just spaced too closely together and high winds just pushed the antenna that hard. The good news is that the antenna has remained in this position for a while, no mounting bolts are broken or missing, and there is adequate slack in the feed line. I am still attempting to get the antenna work done in conjunction with other tower work, which will save the club a significant amount of money. In talking with the consultant whose company performs many of the structural analyses, an average cost for a tower crew for a full day would be in the ballpark of \$3500, not including materials and a possible travel charge. That is why we are hopeful that we can make arrangements to get this fixed for much less. I would like to extend a big Thank You to Jamey for providing his services to take the photos.

Matt Trull, KX4GG
Engineering Chair

From ARRL...

Ohio ARES Provides “Situational Awareness” During January Blizzard

<http://www.arrl.org/news/ohio-ares-provides-situational-awareness-during-january-blizzard>



03/21/2019

Ohio ARES members stared down “Snowmageddon” 2019, the mid-January blizzard that blanketed the lower Great Lakes region. Based on ominous forecasts and discussion with Assistant SECs across the state, Section Manager Scott Yonally, N8SY, and the Ohio Watch Office, SEC Stan Broadway, N8BHL, asked ARES operators to provide observations and reports to assist decision makers at the Ohio Emergency Operations Center and county emergency management agency centers.

“We could do this safely from our homes, and integrate our reports (remotely) into the state’s WebEOC management system, which could be read by the Ohio Watch Office and any other emergency official around the state,” Broadway said. “We had never tried this, and it seemed like a great way to promote the Amateur Service’s ability to provide situational awareness on a wide scale.” Broadway said conditions generated by the storm “could have resulted in an emergency” and warranted a statewide ARES response.

A statewide net was convened on Saturday, January 9, as conditions deteriorated. Amateurs quickly began checking in and reporting their local conditions with specific details. The reports were compiled by Ohio’s AuxComm Team station W8SGT, which was operated from Broadway’s residence on 80 meters, and the VHF/UHF Digital Mobile Radio (DMR) network (the Ohio Talk group), simultaneously.

By nightfall, storm conditions had stabilized, and reporting slowed to the point that the statewide net could be closed. Many county-level nets were also in operation.

The Ohio “Snow Net” received 131 reports from 44 of Ohio’s 88 counties, split evenly between HF and DMR. The short-notice net was entered into the ARES Connect system and more than 50 amateurs signed up for the net event. Several other local snow nets entered for county events also. The statewide reports were logged and submitted every few hours to the state Homeland Security/Emergency Management Agency Watch Desk through WebEOC.

Broadway said emergency managers around the state were impressed that Amateur Radio could furnish reports with such detailed information. He said HF capability to reach across the state was a proven asset, with effective communication in all directions. The DMR system functioned much like Ohio’s public safety radio system, connecting nearly 80 repeaters across the state through the internet. This service had been untested and this event created the perfect proving ground, Broadway said. “We needed dependable statewide communication where all stations would benefit by hearing reports as they were filed,” he pointed out. “The Ohio Talk Group was used with great success, with no known problems with dropout or system faults. Communication proved reliable even with the severe weather threatening power loss and antenna corruption.”

Ohio ARES operators provided a broad range of information including snow depths, wind speeds, and “Level 3” declarations, closed airports and more. Under Level 3 in Ohio, non-essential motorists on roadways are subject to arrest.

Broadway conceded that more aggressive alerting of District and county Emergency Coordinators would have given them more time to prepare. More guidance for local nets might have contributed to more realistic expectations and efficient operation — the specific weather information sought and time frame of operation anticipated, he added.

“Winter storms are part of the Ohio landscape, and we don’t propose ramping up a net for every snowfall. But when the forecasts call for extreme conditions, ARES operators have now proven we can be a true asset for our served partner agencies. — Ohio Section Emergency Coordinator Stan Broadway, N8BHL

Treasurer's Report

Greensboro Amateur Radio Association

BALANCE SHEET

As of March 14, 2019

	TOTAL
ASSETS	
Current Assets	
Bank Accounts	
Business Money Market (3290)	8,232.03
PayPal Bank	1,577.52
Primary Business Checking (6535)	2,728.85
Total Bank Accounts	\$12,538.40
Other Current Assets	
Undeposited Funds	0.00
Total Other Current Assets	\$0.00
Total Current Assets	\$12,538.40
TOTAL ASSETS	\$12,538.40
LIABILITIES AND EQUITY	
Total Liabilities	
Equity	
Opening Balance Equity	11,219.61
Retained Earnings	949.26
Net Income	369.53
Total Equity	\$12,538.40
TOTAL LIABILITIES AND EQUITY	\$12,538.40

Greensboro Amateur Radio Association

PROFIT AND LOSS

January 1 - March 14, 2019

	TOTAL
Income	
PayPal Sales	597.00
Sales	312.45
Total Income	\$909.45
GROSS PROFIT	\$909.45
Expenses	
Interest Paid	-0.27
PayPal Fees	24.61
Taxes & Licenses	146.55
Utilities	274.94
website hosting	146.13
Total Expenses	\$591.96
NET OPERATING INCOME	\$317.49
Other Expenses	
Reconciliation Discrepancies	-52.04
Total Other Expenses	\$ -52.04
NET OTHER INCOME	\$52.04
NET INCOME	\$369.53

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.

From ARRL...

Update from Robinson Crusoe Island

<http://www.arrl.org/news/xr0zrc-update-from-robinson-crusoe-island>



03/21/2019

The XR0ZRC DXpedition team on Robinson Crusoe Island (Juan Fernandez Islands) reports that a very slow internet connection has hampered its ability to upload logs. Operators report that severe local noise on the low bands is making reception difficult.

"The team is looking for another QTH for the low-band position," an announcement on the group's website said. "Some of the equipment that came from Chile to the island yesterday is still on the ship. Unloading is not possible due to [a] storm." The announcement said the XR0ZRC team expects to retrieve the equipment today (March 21) and start installing antennas for 80 and 160 meters.

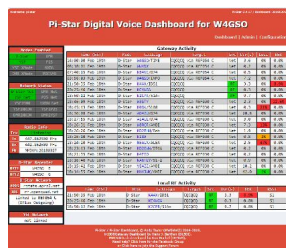
Sponsored by the Russian Robinson Crusoe Club, the XR0ZRC operation is scheduled to continue until March 27. The island was home to marooned sailor Alexander Selkirk from 1704 to 1709, and is thought to have inspired novelist Daniel Defoe's fictional Robinson Crusoe in his 1719 novel about the character, although the novel is set in the Caribbean. Juan Fernandez Islands (CE0Z) is the 68th most-wanted DXCC entity, according to Club Log.

Calendar of Events

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
July 13	VE Session (Hinshaw United Methodist Church, Greensboro)
July 22	GARA General Meeting (Cooper's Ale House, 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 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 Newslines. 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 April - June 2019

Apr. 13th
May 11th
June 8th

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

FIRST CLASS MAIL