

CrossTalk



February 2023 64 Years Of Service To Our Community Issue 64:02

2023 Club Officers

| | | | |
|----------------------------------|--------------------------------|-------------------------------|--------------------|
| President : | Jonathan Pearce, WB2MNF | Trustees - 4 year term | |
| Vice President : | Ronald Block, NR2B | Mark Gottlieb, KK2L | (2020-2023) |
| Treasurer : | Alan Arrison, KB2AYU | Robert Fields, KC6AOH | (2021-2024) |
| Recording Secretary : | Karl Frank, W2KBF | Charles Lanard, KD2EIB | (2022-2025) |
| Corresponding Secretary : | Frank Romeo, N3PUU | John O'Connell, K2QA | (2023-2026) |

Board of Directors - 3 year term

| | | | |
|----------------------------------|--------------------|------------------------------|--------------------|
| Charles Colabrese, WA2TML | (2021-2023) | Jeffrey Garth, WB2ZBN | (2022-2024) |
| William Price, NJ2S | (2021-2023) | Chris Prioli, AD2CS | (2023-2025) |
| James Clark Sr, KA2OSV | (2022-2024) | James Wright, N2GXJ | (2023-2025) |

General Membership Meeting

Wednesday, February 1, 2023 @ 1930 Hours

In-Person & ZOOM - Pfeiffer Community Center

Tech Saturday Forum

Saturday, February 4, 2023 @ 0900 Hours

W2MMD Clubhouse

The GCARC TechNet

February 6 & 20, 2023 @ 2000 Hours

ZOOM Meeting Net

License Testing Session

Thursday, February 16, 2023 @ 1900 Hours

W2MMD Clubhouse

Board of Directors Meeting

Wednesday, February 15, 2023 @ 1900 Hours

W2MMD Clubhouse

Dinner @ The W2MMD Clubhouse

Wednesday, February 22, 2023 @ 1800 Hours

Tuesday Noon Day 2 Meter Rag Chew Net

Every Tuesday @ 1200 Hours

Tuesday Night 10 Meter Rag Chew Net

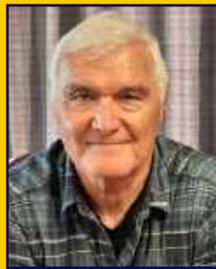
Every Tuesday @ 2000 Hours - 28.465 MHz

Thursday Night 2 Meter Rag Chew Net

Every Thursday @ 2000 Hours

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President's Letter

Jon Pearce, WB2MNF



February 2023

Our January 4th General Membership Meeting was quite successful, with 33 in-person attendees on a rainy night accompanied by 15 ZOOM participants. Retiring president **Tony Starr K3TS** gave an outstanding presentation on working 5 Band DXCC offering multiple tips to those of us for whom DXCC on even a single band seems unimaginable. One member contacted me after the meeting expressing his encouragement at the large number of members who are focused on getting things done. This is the goal of our Club - to provide **Content, Activities, and Resources** to allow large numbers of Club members to find innovative ways to enjoy their hobby together.

Tech Saturday Forum

The Tech Saturday event was similarly successful with **Chris Prioli AD2CS** presenting a tutorial on troubleshooting with oscilloscopes. Although 16 members attended the entire session, some were involved in side conversations that led to some interesting observations. Notably, **Jerry Barnish K2EAB** and **Mike Thompson KG4JYA** realized that both were seriously interested in radio astronomy, which prompted a discussion as to how to use Club resources to advance that activity and get others involved. Several suggestions were advanced including using the Monday night "TechNets" for these types of activities, as well as the Club's Discord server to provide online discussion capabilities. We'll be working on advancing these type of activities in the coming months.

The February 4th Tech Saturday session will cover the configuration and operation of the FLEX-3000 HF radio recently installed in the HF room, and its interfaces with fldigi, WSJT, and the PST Rotator interface. The Flex requires virtual COM ports and sound cards so we'll cover them as well. Tech Saturday starts at 9:00 AM on the first Saturday of each month following the General Membership Meeting.

HF Station

The HF station was also in operation for the ARRL RTTY contest later that afternoon and **Courtney Smith KD2SPJ** came down to operate for a few hours. We plan to have this station available for local operation each Saturday from 9:00 AM to 2:00 PM and encourage all appropriately licensed members to feel free to drop in, become familiar with the operation of the FLEX-3000 or Icom 7300 radios and other equipment, and to use the station frequently. The Clubhouse HF station provides an opportunity for those of us in HOA restricted communities or who may be newly licensed and looking to evaluate their ham radio opportunities without a significant initial expenditure of funds. The Icom 7300 provides a traditional radio operating experience, while the FLEX-3000 provides an introduction to SDR-type operating. The Elecraft amplifier and new tower and antennas provide state-of-the-art capabilities for HF operating.

President's Letter - Continued on page 3

Satellite Station Is Operational!

The satellite station has been offline since March 2022 due to the reconstruction in the VHF room. Much of the heavy construction work (replacing insulation, patching holes in walls, new paneling and ground installation) has been completed, so the VHF room can be temporarily opened until the custom - built furniture is completed. This let us temporarily install the satellite station on a folding table and make it operational for a couple of months. We'll have it operating for the February Tech Saturday event, although it's too early to evaluate when satellite passes will occur on that day. We expect the satellite station to be operational almost every Saturday thereafter, so let me know if you're interested in satellite operations and we'll schedule a time to get you involved. Obviously satellite contacts can only occur when satellites are overhead so users will need to be flexible, But if you're interested we'll find a time to make it happen.

HF Station Upgrades

One of my goals for 2023 is to consolidate remote and local operation in the HF room. Currently, operation is bifurcated between remote and local operators, with remote operators using "remote ham" to operate the Kenwood radio, while local operators can use either the Icom 7300 or the Flex 3000. Currently only remote operators can use the Elecraft amplifier. My goal is to consolidate this experience using a single radio, probably a FLEX-6400 or 6600, and also provide both local and remote rotator control and antenna switching without needing any manual tasks that must be performed locally. Unfortunately, the Flex software doesn't appear to have that capability, nor is it envisioned in the future, so we would need a separate device providing these capabilities while also being significantly resistant to external hacking. Network security is paramount within the Clubhouse network, and exposure of PCs to the Internet is severely limited; therefore allowing remote access to a program like PST Rotator may create an unacceptable security risk. Alternatives may exist, however, so please let me know if you'd like to work on this project.

KC4/WB2MNF - almost

As I finish off this column I'm sitting on the Viking Polaris expedition ship staring out my window at the continent of Antarctica. I had initial thoughts of bringing an HT down here, carrying it on shore, briefly pressing the transmit button and then announcing that I had operated in Antarctica, but Viking prohibits "ham radios" on their ships. Besides, my primary objective (other than the sheer excitement of being here) is to take great photographs and the HT would have taken the place of a camera on the RIB boats that bring us to the shore. Once I'm back and have a chance to process these photos anyone interested can take a look at <https://pearcefamily.org> to see if I got anything interesting. It will probably be mid-February before I'm done but hopefully I'll have some good stuff.

And Viking cruises actually streamed the **Eagles-Giants** game for which I'm sure that we were the southernmost viewers and also created the southernmost singing of **Fly Eagles Fly!**

This month we welcome the following new members :

- ◆ **Vincent Antonelli KA2APD from Scarsdale, NY**
- ◆ **Gary Castellini N2IEC from Vineland**
- ◆ **Ben Johnson WB2GUK from Egg Harbor Township**
- ◆ **Bill Robinson KD2ANM from Franklinville (returning member)**
- ◆ **Marty Wilt W2ILT from Laurel Springs (returning member)**

73 de Jon WB2MNF
President, GCARC



General Membership Meeting

Wednesday, February 1, 2023 @ 1930 Hours

Pfeiffer Community Center
Simulcast Live Via ZOOM



Sheldon & Jim Present Remote FLEX Radio Operation!

Radio Ridiculousness! HF radio from the couch while watching an Eagles football game? Impossible. Don't you always have to operate from that dark dank basement where the radio is installed, or go out to that freezing cold tool/radio shed in the dead of winter while the rest of the family gets to hang out and watch sports on TV together?



Well, you know, radio technology keeps improving. It's not that you can't "operate in the shack" like you always have. Certainly, you can still do what you've always done. But wouldn't it be interesting if you weren't tied to being where the radio was in your house to jump on 10 meters for some CW, Phone/SSB, or digital action from anywhere in your house, like from your favorite chair in the family room with the TV on?

Just saying, there are more options today that you might be interested in knowing about and considering.

And that's what this month's program is all about. Sheldon Parker K2MEN and Jim Wright N2GXJ are scheduled to be the guest speakers for the educational program that follows the business portion of the February 1, 2023 General Membership Meeting.

We'll be introducing how all this is actually possible, and how they do it. There will be some show-and-tell equipment brought in, along with an introductory level presentation, and opportunity for an interactive question and answers session all around the general topic we've been given, which is "**Sheldon and Jim Present Remote FLEX Radio Operation**".

Hope to see you there!

W2MMD



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GCARF





**Tech Saturday Forum
February 4, 2023 @ 0900 Hours
W2MMD Clubhouse**

FLEX Radio: Configuration & Operation

This Tech Saturday session will cover the configuration and operation of the FLEX-3000 HF radio recently installed in the HF room, and its interfaces with fldigi, WSJT, and the PST Rotator interface. The Flex requires virtual COM ports and sound cards so we'll cover them as well.

Q & A Session About All Things Ham Radio and Socializing

Tech Saturday sessions are held at the W2MMD Clubhouse on the first Saturday of the month following the Wednesday Night General Membership Meeting and are designed to be hands-on collaborative events focused on using the Clubhouse resources to demonstrate various aspects of Amateur Radio and related technical areas. Previous sessions have covered USB software-defined radios, Raspberry Pi and Arduino devices, satellite operations and other similar topics.

We would like to invite all of our new members as well as our veteran members to our Tech Saturday Forums to help answer any questions and discuss any and all issues the new members have come across as they progress through the *Amateur Radio Experience*.

The Discussion Theme is a QSO starting point - a way to initiate a conversation. All Tech Saturdays are an open QSO of all subjects of Amateur Radio interest.

All questions are welcome as well as a venue for hams to show off their latest ham radio projects or gadgets. Have a problem programming that HT, we can help! Not sure what radio or antenna to buy, we can help!

All Club Members who would like Clubhouse access to use its radio equipment would have to have some brief "Elmering" on the Clubhouse rules, such as using the alarm system, the A/C and heaters, the antenna system, and the radio equipment. The Club's HF station is reserved for local use on Tech Saturday.

All are welcome - Hams and Non-Hams - Club Members and Non-Club Members.



Gloucester County Amateur Radio Club YouTube Channel
<https://www.youtube.com/@W2MMD>

Welcome New Club Members :

Vincent Antonelli Sr, KA2APD, who has a General Class license and lives in Scarsdale, NY.

Gary Castellini, N2IEC, who has an Advanced Class license and lives in Vineland, NJ.

Ben Johnson Sr, WB2GUK, who has an Amateur Extra Class license and lives in Egg Harbor Township, NJ.

Bill Robinson, KD2ANM, (Returning Member) who has a General Class license and lives in Franklinville, NJ.

Marty Wilt, W2ILT, (Returning Member) who has a General Class license and lives in Laurel Springs, NJ.

We are glad to have you as members of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at the February 1st General Membership Meeting , either in-person or on ZOOM and the February 4th Tech Saturday Forum. We hope to hear you on the Tuesday Night 10M Rag Chew Net. The semi-monthly TechNet on February 6th and 20th at 8:00 pm via ZOOM. And please tune in to our Sunday Night Skywarn Net at 7:30 pm and the ARES Net at 8:00 pm, the Tuesday Noon Day 12:00 pm 2M Rag Chew Net, and the Thursday Night 8:00 pm 2M Rag Chew Net, all on our 147.180 MHz repeater or on EchoLink : W2MMD-R.



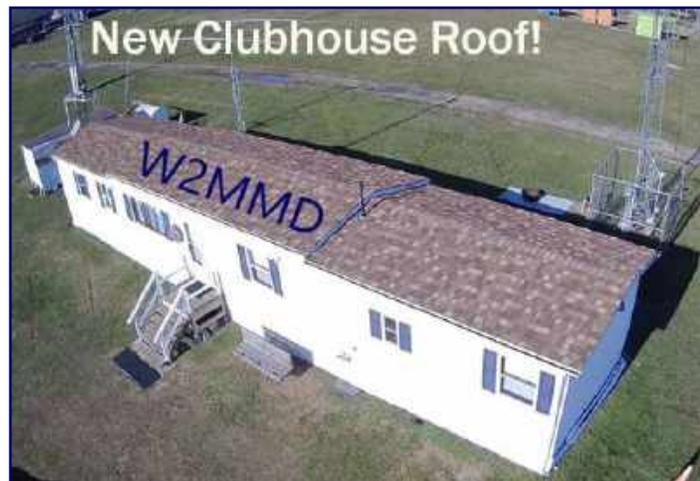
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GCARC Monthly VE Exam Testing Summary

January 12, 2023

Gary Reed, N2QEE reports : The monthly VE session was held on January 12, 2023 with 3 candidates. All candidates passed their examinations.

- ◆ Marty Wilt W2ILT of Laurel Springs upgraded to General Class
- ◆ Benoit Desjardins KC3VKQ of Glen Mills, PA achieved Technician Class
- ◆ James Keeney KE2AOR of Haddonfield achieved Technician Class

The FCC license upgrade went through the next day and the one Technician license was posted Saturday morning. The second candidate's Technician license wasn't posted till Wednesday the 18th. This was due to the fact the FCC CORES website was hacked sometime Friday night or Saturday morning. Although the candidate had paid the \$35 fee no license was issued. As of the afternoon of January 18th the FCC CORE site was back up.

The participating VE's were :

- ◆ **Chris AD2CS**
- ◆ **Mike N2MHO**
- ◆ **Lee N2LAM**
- ◆ **Jeff WB2ZBN**
- ◆ **Mike KG4JYA**
- ◆ **Mike N2WOQ**
- ◆ **Earl KC2NCH**
- ◆ **Rich N2RHS**
- ◆ **Gary N2QEE**

A thank you to the VE's who helped with the session. The next VE session will be held February 16, 2023 at 7 PM at the W2MMD Clubhouse. Due to a scheduling conflict this date is the third Thursday of the month.

Club Elmers

We are still looking for some more Club Elmers. If you would to add your name to the Elmer's List, send your specialty to w2mmdgcarc@gmail.com. Here is what we have so far :

- **Tony Starr, K3TS : Antenna Construction, Contesting, and CW Help / Training**
- **Ken Bozarth, KN2U : Antennas**
- **Jeff Welsh, KD2AZI : Boat Anchor Repair / Operation, Raspberry Pi, Arduino, Python, POTA, Mobile Installation / Operating**
- **Karl Frank, W2KBF : Digital Messaging (FLDIGI, WinLink)**
- **Herb Dyer, KT2Y : DMR Radios / Programming**
- **Ron Block, NR2B : Lightning protection and grounding**
- **Chris Prioli, AD2CS : Kit Building, Radio Programming, PC Troubleshooting and Electronic Troubleshooting**
- **John Zaruba, K2ZA : Yaesu Radio Programming**
- **Jerry Barish, K2EAB : Radio Astronomy**
- **Mike Thompson, KG4JYA : Radio Astronomy**

DA's and DIT's

>> **Mike Thompson, KG4JYA**, reports about the Olivia Digital Mode Weekend QSO Party starting on February 11, 2023. For more information, go to : <https://groups.io/g/Olivia>.

>> A Big Get Well to the following Club members :

- ◆ Vince Antonelli, KA2APD
- ◆ Anthony Cerami, N2OAC
- ◆ Greg Ciraula, W5DO
- ◆ Jim Clark, KA2OSV
- ◆ Rolf Wurmbach, KD2VQG

>> Here is a link to an excellent article by **Dick Singer, K6KSG**, who worked for the CIA to help raise a Soviet submarine : <https://bit.ly/3wpt61B>

“Dinner @ The Clubhouse”

Wednesday, February 22, 2023 @ 1800 Hours

W2MMD Clubhouse

An informal get together to share a meal and chat



You Can Pay Your Membership Dues 4 Ways :

- Pay your dues using our Pay Dues Here page
- Bring your money in to a General Membership Meeting
- Bring your money in to a Tech Saturday Forum
- Send your check in to our PO Box 370

**Gloucester County Amateur Radio Club
PO Box 370, Pitman, NJ 08071**

The membership dues are :

- \$30.00 - Full Membership
- \$15.00 - Family Membership
- \$25.00 - Associate Membership
- \$15.00 - Junior Membership

March 31, 2023 is the deadline to renew your membership dues



The Education Connection By Chris Prioli, AD2CS



February 2023

As Groundhog Day approaches, I am preparing for the next session of Ham Exam Preparation Classes, Session IV. All of the prep that I am doing got me to thinking about, and then looking at, the statistics for the three completed sessions. I thought that I would share the numbers with the Club, if anyone is interested.

All told, over the three previous sessions, we have had a total of 76 enrollees, 68 of whom were male, and 8 were female. Of that total, 18 overall withdrew from the classes, leaving a total of 58 students who completed the classes. Of those, 47 passed their FCC exams, earning a license or an upgrade. This number represents only those who tested with us, or who informed me of their success. The total includes 14 new Technicians, 11 new Generals, and 22 new Amateur Extras. I really wish that the pass rate was higher than it is, but I cannot help those who do not attend all of the classes and do not make up the missed subjects, or who consistently show up a half hour (or more) late for each class. The fact is that those who put in the effort, succeed!

Our classes are rather unique in that we do a lot more than just cram for the exams. We dig pretty deeply into the theory behind the operations, and I admit that it can sometimes be pretty dry material. But... the better an understanding one has of the theory behind things, the better equipped one is to figure out an answer that may not be known or memorized.

Our instructors all do a fabulous job of getting the material across to the students, as most of the successful test candidates will confirm. All that we ask is that the students take it as seriously as we do. None of the instructors get anything out of this except the satisfaction of helping the students advance in our chosen hobby. No one is paid for their time, and the time really does add up. Our programs each run to a total of at least twenty-four classroom hours, plus the testing time. All of the instructors are also Volunteer Examiners and are thus involved in the testing program as well. I want to take this opportunity to publicly thank and applaud our team of instructors for the job that they do so well. Specifically, I refer to **Chuck WA2TML**, **Jim N2GXJ**, **Gary N2QEE**, **Steve W2SEF**, and **Mike N2WOQ**. Thank you one and all!

On another topic, our **TechNet** program is progressing well, with **Steve W2SEF** doing a great job of presenting the current topic, that being FT8 and its related modes and applications. Thanks to Steve for a job well done, with more to come. Thanks also to **Gary WA3SVW** for his tireless time spent serving as the key ZOOM host for our **TechNet** sessions.

Finally, we are working on a plan to roll out another new program. The idea is that Club members can submit questions or topics with which they need some help, and we will then attempt to provide that help through an online ZOOM meeting on the alternate Mondays between **TechNet** dates. We like the title **Help-Net**, but we are still open to suggestions. My thought is to set up another e-mail address specifically for the submission of these help requests. The goal is to address as many submitted questions or topics as we can. This concept is not my idea. It grew out of a discussion between **Jon WB2MNF** and **Mike KG4JYA** at the last **Tech Saturday Forum**. It is, however, a great idea that I believe we should run with. Kudos to them for the idea!

That just about does it for this month... see you all next time!



**Tom Abernethy, W3TOM
ARRL Director - Atlantic Division**

To All Atlantic Division Members,

As we start a new year, I wanted to share the news of the passing of the torch.

At the close of business today, Friday, January 6, 2023, I will resign from my office as the ARRL Director of the Atlantic Division. I genuinely thank you for all of the massive support that you have given me over these many years.

Bob Famiglio, K3RF our current Atlantic Division Vice Director will ascend to the position of Director at that time. I have thoroughly discussed the transition of leadership of the Atlantic Division with Bob and I am very pleased that the division will be in Bob's capable hands. As part of a cohesive division leadership team for many years, Bob is very well prepared and will do a GREAT job for us. Please give Bob all of your support.

It has been a distinguished honor and a pleasure to serve on the ARRL Board of Directors while representing all of the almost 13,000 ARRL members of the Atlantic Division. After having served for over 20 years in ARRL elected offices, it is my intention to remain very active in support of the ARRL and I wish everyone all the best as we head into the future of Amateur Radio and the ARRL.

Respectfully,
Tom Abernethy, W3TOM
ARRL Director - Atlantic Division
w3tom@verizon.net

Serving all of the ARRL members in the Delaware, Eastern Pennsylvania, Maryland/DC, Northern New York, Southern New Jersey, Western New York and Western Pennsylvania ARRL Sections.

Contribute to the Gloucester County Amateur Radio Foundation with your Amazon Smile Purchases

Amazon Smile allows customers to designate a charitable organization that will receive a donation of 1/2 of one percent of your purchases - at no costs to you. Your Amazon purchases will help fund equipment acquisition, education, and research activities at the W2MMD Clubhouse. Sign into your Amazon account using the QR code or go to smile.amazon.com to set up the Gloucester County Amateur Radio Foundation as your charity.



Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

GCARC <at> MAILMAN <dot> QTH <dot> NET

All Club members have access to this FREE e-mail service



Robert B Famiglio, K3RF **ARRL Atlantic Division Director**

It is my pleasure to inform you that our new Vice Director for the ARRL Atlantic Division is **Marty Pittinger, KB3MXM**. Many of you may know Marty as the recent Section Manager for the Maryland/DC section. Marty was on the short list of our recently retired Director, **Tom Abernethy W3TOM**, and me, along with other names in our division when recommendations were needed to replace me as Vice Director when Tom informed me he was going to step back and I needed to step up. Thanks Tom for all your help. Marty has an impressive background, including US Navy submarine service and presently works in change management for FEMA in DC. Marty really has been there and done that, so to speak.

Now, as our first ARRL board meeting is scheduled this week in Connecticut, I look forward to serving you as your Director along with Marty as your Vice Director. In that regard, Tom has prepared me well over these last years I have been your Vice Director. Now, I promise to represent your interest in our League for the remainder of my term, along with the help of all the Section Managers for each of our 7 sections comprising the ARRL Atlantic Division. We have many challenges ahead, but great possibilities and new horizons in Amateur Radio as well. I look forward to working with all of you to meet that future. I will need your input to do that. May I count on your help?

73, and I will see you on the radio.

Bob Famiglio, K3RF
ARRL Atlantic Division Director
k3rf@arrrl.org

Serving all of the ARRL members in the Delaware, Eastern Pennsylvania, Maryland/DC, Northern New York, Southern New Jersey, Western New York and Western Pennsylvania ARRL Sections.



Thursday, February 2, 2023

GCARC Amateur Radio Test Prep Class Schedule

2023 Session IV

Class Times : 1800 - 2100 Hours

Weeks 1 through 8 + VE Testing Week

| Class Week | Class Date | License Class Study |
|--------------------|----------------------------|---------------------|
| Week One | Monday, February 13, 2023 | Technician Class |
| Week One | Tuesday, February 14, 2023 | General Class |
| Week One | Friday, February 17, 2023 | Amateur Extra Class |
| | | |
| Week Two | Monday, February 20, 2023 | Technician Class |
| Week Two | Tuesday, February 21, 2023 | General Class |
| Week Two | Friday, February 24, 2023 | Amateur Extra Class |
| | | |
| Week Three | Monday, February 27, 2023 | Technician Class |
| Week Three | Tuesday, February 28, 2023 | General Class |
| Week Three | Friday, March 3, 2023 | Amateur Extra Class |
| | | |
| Week Four | Monday, March 6, 2023 | Technician Class |
| Week Four | Tuesday, March 7, 2023 | General Class |
| Week Four | Friday, March 10, 2023 | Amateur Extra Class |
| | | |
| Week Five | Monday, March 13, 2023 | Technician Class |
| Week Five | Tuesday, March 14, 2023 | General Class |
| Week Five | Friday, March 17, 2023 | Amateur Extra Class |
| | | |
| Week Six | Monday, March 20, 2023 | Technician Class |
| Week Six | Tuesday, March 21, 2023 | General Class |
| Week Six | Friday, March 24, 2023 | Amateur Extra Class |
| | | |
| Week Seven | Monday, March 27, 2023 | Technician Class |
| Week Seven | Tuesday, March 28, 2023 | General Class |
| Week Seven | Friday, March 31, 2023 | Amateur Extra Class |
| | | |
| Week Eight | Monday, April 3, 2023 | Technician Class |
| Week Eight | Tuesday, April 4, 2023 | General Class |
| Week Eight | Friday, April 7, 2023 | Amateur Extra Class |
| | | |
| VE Testing Session | Monday, April 10, 2023 | Technician Class |
| VE Testing Session | Tuesday, April 11, 2023 | General Class |
| VE Testing Session | Friday, April 14, 2023 | Amateur Extra Class |

Regional (Atlantic & Hudson Divisions) Hamfests & Events

February 04, 2023 : Keuka Lake Amateur Radio Association, Groundhog Hamfest, Almond Community Building, 1 Marvin Lane, Almond, NY. www.klara.us

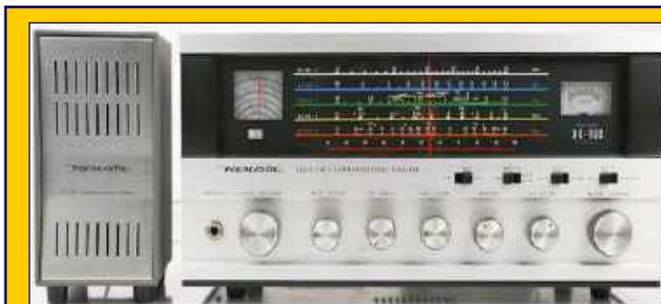
February 25, 2023 : New Providence Amateur Radio Club, NPARC Auction & Flea Market, Salt Brook School Cafeteria, 40 Maple Street, New Providence, NJ. www.nparc.org

February 26, 2023 : Wireless Association of South Hills Amateur Radio Club, WASHfest 2023, Home Economics Building, South Park, 3735 Buffalo Drive, South Park Township, PA. www.n3sh.org

February, 26, 2023 : Long Island Mobile Amateur Radio Club, LIMARC Hamfest, Levittown Hall Swimming Pool, 201 Levittown Parkway, Hicksville, NY. www.limarc.org



HamCation 2023
February 10 - 12, 2023
Central Florida Fairgrounds and Expo Park
Orlando, FL
www.hamcation.com



North American Shortwave Association
NASWA Winter SWL Fest
March 3 - 4, 2023
www.swlfest.com



Saturday, March 18, 2023
The College of New Jersey
Ewing Township, NJ
www.tcf-nj.org



QSO Today Virtual Ham Expo
March 25 - 26, 2023
www.gsotodayhamexpo.com

The GCARC TechNet

ZOOM Meeting

Check-ins start @ 1930 Hours
First & Third Mondays of the Month @ 2000 Hours

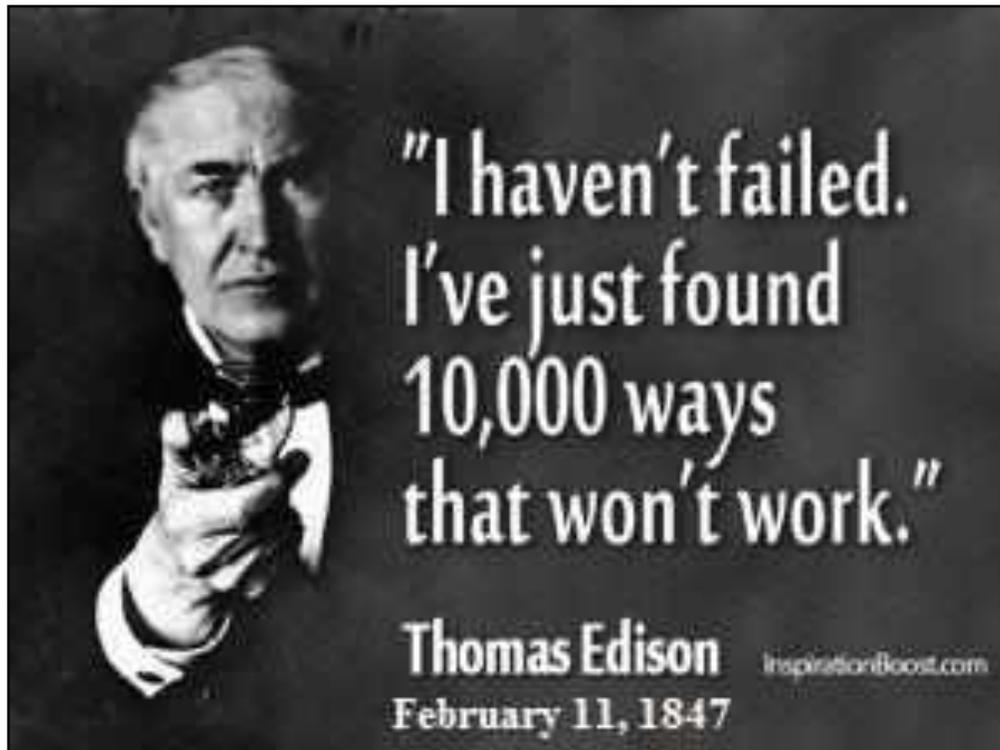
February 6 & 20, 2023

Current Training Class : WSJT-X/FT8

Training Instructor : Steve Farney, W2SEF

Topics include, but not limited to : LoTW/TQSL, WSJT-X, Time Synchronization, Logging Programs, JS8Call, and YouTube videos on how to use WSJT-X

Go to : <https://gloucestercountync.weebly.com/gcarc-tech.net.html>
for TechNet Information Resources and ZOOM Instructions



Tuesday Night 10M Rag Chew Net @ 2000 Hours
Net Control Host : Jim Clark, KA2OSV
28.465 MHz or 28.475 MHz



**Thursday Night 2 Meter Rag Chew Net
147.180 MHz Repeater
EchoLink : W2MMD-R
Every Thursday @ 2000 Hours**



Here is the schedule for the upcoming weeks

**Steve Farney, W2SEF : February 2, 2023
Chris Prioli, AD2CS : February 9, 2023
Mary Delemarre, W2TDS : February 16, 2023
Gary Mirkin, WA3SVW : February 23, 2023**

If anyone would like to be a net control operator, please notify **Jeff WB2ZBN**

**Steve Farney, W2SEF : March 2, 2023
Mary Delemarre, W2TDS : March 9, 2023
Chris Prioli, AD2CS : March 16, 2023
Gary Mirkin, WA3SVW : March 23, 2023
Steve Farney, W2SEF : March 30, 2023**



Tuesday, February 14, 2023

**Tuesday Noon Day 2M Rag Chew Net @ 1200 Hours
Net Control Hosts : Steve W2SEF, Chris AD2CS, & Mike KG4JYA
147.180 MHz Repeater & EchoLink - W2MMD-R**

Here is the schedule for the upcoming weeks

**Steve Farney, W2SEF : February 7, 2023
Chris Prioli, AD2CS : February 14, 2023
Mike Thompson, KG4JYA : February 21, 2023
Chris Prioli, AD2CS : February 28, 2023**

**Steve Farney, W2SEF : March 7, 2023
Chris Prioli, AD2CS : March 14, 2023
Mike Thompson, KG4JYA : March 21, 2023
Steve Farney, W2SEF : March 28, 2023**

If you would like to be a control operator for this net, please contact Steve, W2SEF



At The Repair Bench...

A monthly column describing a recent repair bench event.

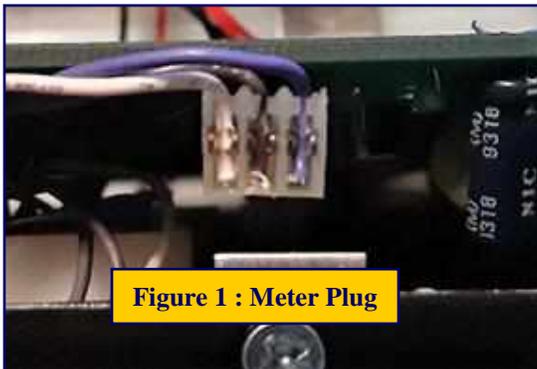
By Chris Prioli AD2CS

MFJ-259 SWR Analyzer – February 2023

This month's case history is a slight departure from the norm, in that it involves the repair of a piece of test equipment. Notably, the unit under repair is one that I had already done some repair work to, prior to donating this piece to the Club for the test and repair bench.

On a recent Saturday afternoon, **Frank N3PUU** had occasion to use the MFJ-259 SWR Analyzer while setting up the VHF station for an upcoming contest. Unfortunately, the unit did not operate as expected, and Frank left me a note to that effect. Naturally, I picked up the unit and brought it home for repair.

What should have been a quite simple repair job turned into a little bit more than I had bargained for. The reported problem was that the meter was not reading, meaning that there was no indication of the tested SWR value. A quick check verified the condition, showing that the LCD panel was operational as to displaying the test frequency, but the meter movement was inoperative. However, I noticed that the meter came alive when I happened to jar the unit when I went to place it on the bench. That gave me a hint as to where to look for the problem.



Diving in “under the hood”, so to speak, I quickly found some cracked solder joints on the unit's main printed circuit board. There are two meters on the front panel of this unit. One is the SWR meter, and the other is a resistance meter. These two meters are connected to the main PCB via a three-wire harness with a 90° plug at its end (**Figure 1**). The plug connects to a three-pin right-angle pin header on the PCB. It was this header that had the cracked solder joints (**Figure 2**). A simple fix - I simply reflowed the solder on those pins and the meters worked as intended. However, I did not stop there.

You see, I had been bothered by this unit ever since I put it on the test and repair bench. I felt that I did not do as thorough a refurb job on this unit as I could have, and this was borne out by the fact that Frank had trouble with the unit when he tried to use it. One of the items that I had intended to replace but did not was the SO-239 jack on the top of the unit. I decided to go ahead and give the whole unit a closer look and to replace the SO-239 jack.



At The Repair Bench - Continued on page 17

Replacement of the SO-239 connector requires removal of the main PCB, which in turn requires desoldering of the two pushbutton switches and the BNC jack on the unit's upper surface. The SO-239 itself is connected to the main PCB in an unusual fashion. The center pin of the SO-239, when the main PCB is in place, sits about an eighth of an inch above the PCB. That gap is simply filled with solder at the factory. Each of the two mounting screws used for the SO-239 has a solder lug installed under its nut. The lugs are then bent over to reach the main PCB and are soldered to pads on the PCB. These solder lugs also do not quite reach the board surface, and so their gaps are also solder-filled in production (**Figure 3**). Large solder bridges of this type are prone to cracking with time, a condition with which I was not happy. I therefore decided to correct this as well.

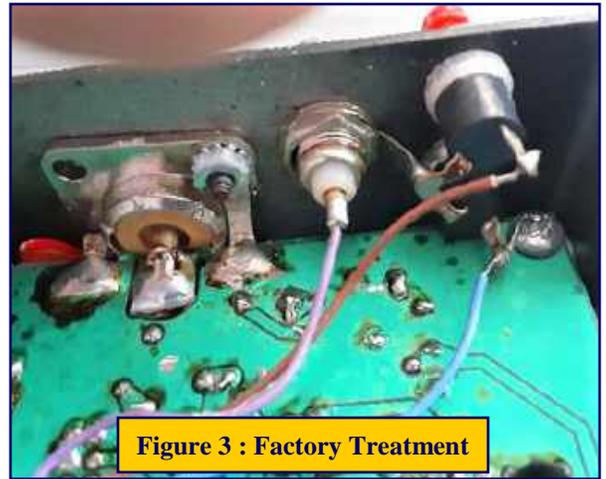


Figure 3 : Factory Treatment

Another poor manufacturing technique, in my view, was the manner in which the BNC jack and the pushbutton switches were connected. The two pushbutton switches are normally-open switches that, when pressed, connect their respective circuits to ground. The way that MFJ chose to implement this was to bend one solder lug of each switch over and solder them to the solder lug under the nut on the BNC jack (**also shown in Figure 3**). It was a stretch at best, and it put undue stress on the bodies of the pushbutton switches. As it turned out, when I removed these switches, I found that the bodies of both switches were cracked. Solution? Two new switches... which turned out to be an adventure in and of itself.



Figure 4 : SO-239 As Repaired

I installed the new SO-239 to the enclosure. Then, I went over the main and display PCB's carefully, touching up any solder joints that looked the least bit suspicious. I then installed the main PCB to the enclosure, and I added lengths of bus wire between the mainboard solder pads and the SO-239 center pin and also at the solder lugs on its mounting screws (**Figure 4**). Next, I installed the BNC jack and the two pushbutton switches, wiring them up to the main PCB as they were originally. I added some bus wire to connect the grounded sides of the pushbutton switches to the BNC jack ground lug to make it a more comfortable fit. Now for the moment of truth.

I connected the battery banks (there are two of them) and powered up the unit, only to find that the LCD panel was not working. Now what? Did I damage the LCD panel in doing my solder touch-ups? I did not think so, but I went ahead and removed the main PCB again so that I could inspect the display PCB carefully. As luck would have it, I found nothing wrong there.

I sat back and thought about it a little bit, and then I decided to eliminate possibilities by testing the unit operation at each step of assembly. I installed the main PCB and checked the LCD operation, finding that it worked normally. I connected the SO-239 jack and again checked the LCD operation, and it worked just fine, which makes sense, as the jack was open.

So, next I wired up the BNC jack, and as expected (as this jack too was open), the LCD operated as it was meant to. I then connected the first of the two pushbutton switches, the one labeled “GATE”. Once again, the LCD panel worked normally. Finally, a bit confused, I connected the “INPUT” pushbutton switch. Of course, now the LCD panel did not work.

As mentioned earlier, the pushbutton switches are normally-open switches, so connecting that last switch should not have made any difference, but it did... which meant that the switch was obviously not open! I checked the switch with an ohmmeter, and sure enough, it was a normally-closed switch that had somehow gotten mixed in with my supply of normally-open switches. Swapping out that switch for another (verified NO) switch from my stock solved the problem (**Figures 5 & 6**).



Figure 5 : Pushbutton Switches As Repaired

The lesson to be learned from this repair is actually a dual lesson.

- ◆ First, I should have done a more complete job on this unit the first time around, before I put it on the Club’s test and repair bench.
- ◆ Second, and more to the point, remember that each and every “repair” that is made can actually introduce a previously non-existing problem.

When things don’t work out the way that you expect them to, think it through and carefully go back over what you have done and especially any changes that you have made.

A thorough search will usually turn up the culprit.

See you next month!

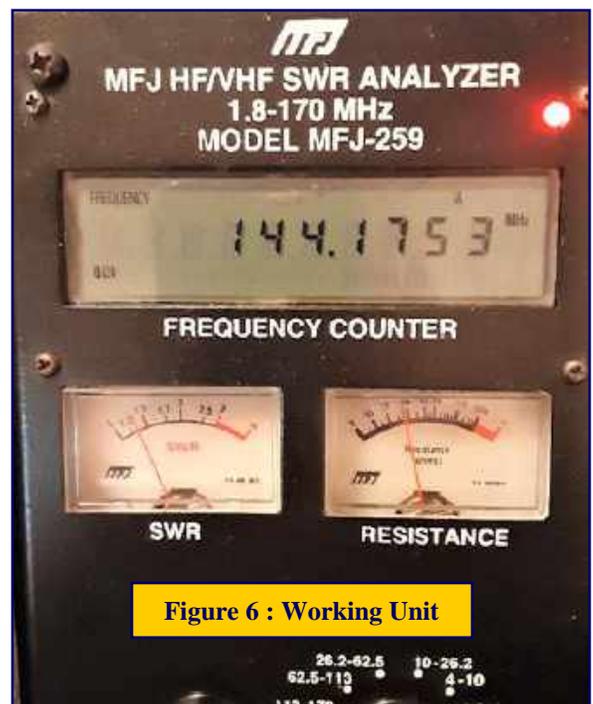


Figure 6 : Working Unit

The following article by Peter Doherty KC1HHO, posted to the Eastern Massachusetts Section ARRL website (<https://ema.arrl.org>) on December 22, 2022, has been adapted with permission.

Why Not Send a Radiogram Today?

By Dave Sheppard, W2PAX - Net Manager, Southwest Florida Traffic Net

Amateur Radio operators need not be involved with the National Traffic Service (NTS) to send or receive radiograms. Official Relay Stations (ORS), as well as stations in training, can “originate” your messages and get them into the traffic system. This can easily be done by finding out who a local ORS is and sending them your message via email, snail mail or even in person (think club meetings). This station will also communicate back to you any replies that your message generates. Best of all it’s all free of charge!!

So what kind of messages could be sent? Holiday greetings to family or friends, confirmations of QSO’s, notifications of awards or certifications from your club or special event, thank you messages. Any legal traffic, recommended to be 25 words or less (but not required). Some NTS messages can be incorporated into brevity codes that reduce the word count (think ‘ARL’ numbered messages). An ORS will be able to work with you to make it happen.

The ominous possibility of communication infrastructure being compromised is another reason to rely on the NTS to get your message through. The time is now to establish a trusting relationship with your local NTS stations and gain experience so that you’ll be better prepared for the future.

Incorporating radiograms into your personal or club radio activities will provide another facet to the hobby. Once you’ve experienced the effectiveness of sending radiograms you’ll be amazed. Thousands of Amateur Radio operators participate in this system and you can too.

To get started utilizing the NTS resources in your local area, contact your Section Traffic Manager.

(**NOTE: THE LAST PARAGRAPH ORIGINALLY READ “To get started utilizing the NTS resources in your local area, contact Dave Sheppard W2PAX at swftn@fmarc.net, and visit <https://fmarc.net/swftn>.” I am willing to help anyone that wants to get involved with traffic handling, and my contact information can certainly be provided. However, since I am in Florida, I may not be the best source of help for those in South Jersey.)

Steven Bromhead, KB2RTZ, is the ARRL SNJ Section Traffic Manager.

Editor’s Note : Dave Sheppard, W2PAX, is a new member of our Club and the “unofficial” Florida correspondent for CrossTalk Magazine.

WORD TO THE WISE

Libration

Apparent movement or oscillation of the moon, caused by changes in the physical distance between the Earth and Moon. In EME communications it is the cause of signal fading or Doppler shift. Libration fading was described and characterized by Joe Taylor, K1JT, in his paper "Frequency-Dependent Characteristics of the EME Path" (<https://www.dxmaps.com/emelibration.html>) presented at the 14th International EME conference.



Amateur Radio Emergency Services Update - February 2023

By Bob Keogh, KD2NEC - Gloucester County Emergency Coordinator

1. First and Foremost....Partnering with the American Red Cross

We are making progress with the Partnership between the Red Cross and the ARRL. Below is page 12 of 12 of the current Memorandum of Understanding (MOU) that roughly describes the roles that ARES will provide to the NJ Region of the Red Cross when there is a need for the Red Cross to activate ARES during a Disaster Relief Operation (DRO). Of course, the need for Emergency Radio Communications will only be necessary when the commercial communications providers (i.e. Internet and Cellular Phone system) has been disrupted.

We are also working on a more detailed "Local Agreement", that will support the MOU. There are a series of Video Conferences scheduled with the Red Cross and the ARRL/ARES, to finalize the plan.

Page 12 of 12 of the existing Red Cross and ARRL MOU

During a Red Cross Disaster Relief Operation (DRO), ARRL volunteers may perform in any of the following roles. These are examples of actual roles; they may or may not actually be included in all operations depending on the need of the operation. It is possible that one person can support multiple rolls or one role may require support from several people. This is not an exhaustive list and ARRL volunteers who are assigned roles by the Red Cross during a DRO will be provided with Red Cross credentials as required by the role, consistent with Red Cross Policy.

Amateur Radio Liaison : This role is for a person who is familiar with both Red Cross and local amateur radio operations. This role would establish contact with the local ARES unit, amateur radio club, and repeater owners to provide a single technical-level point of contact for the DRO. If local agreements already exist, this role could be pre-designated. It would be expected that this role would be linked to a similar role in the partner organization.

Communication Equipment Operator : This is a standard radio operator role for someone who would operate a two-way radio or other communication device at a fixed facility or mobile/portable location to support the DRO. They would pass messages from point to point either directly or through a message relay. Operators may use DRO-issued equipment or personally-owned equipment, and they may be on amateur radio frequencies or frequencies coordinated or licensed by the Red Cross.

Communication Equipment Installation/Repair : This is a more technical hands-on-role than the Operator. In this role, the person would be asked to temporarily install two-way radio equipment into a facility or vehicle that is under Red Cross authority through ownership, lease or rental. The equipment could include base-station radios, mobile radios, and appropriate antennas. Equipment may also require field repairs, such as the radios installed into Red Cross emergency response vehicles (ERVs).

Disaster Assessment : Individuals who have the necessary training with the Red Cross can assess the damage caused during a disaster, and use their radio skills to relay that information back to a central point that will use the information to develop a complete picture of the event.

End of page 12 of 12 of the Red Cross and ARRL MOU

SNJ ARES Update - Continued on page 21

If this opportunity to use your Amateur Radio License is appealing to you, please send an email to Bob Keogh (KD2NEC@QSL.NET) Gloucester County ARES Emergency Coordinator and I will add you to the list of Volunteers for this humanitarian program.

2. We have started planning a similar drill described below, for our 2023 Simulate Emergency Test (SET) for October

ARES/CERT Flood Preparedness Drills in Northwestern Washington.

Flooding in Sumas, Washington and Abbotsford, British Columbia, November 2021 - In that November, Whatcom County, Washington and southern British Columbia experienced the worst flooding in 30 years. The Nooksack River overflow significantly impacted the communities in the floodplain and extended across the border into Abbotsford, BC, as well. Stream overflows also flooded several major streets in Bellingham, WA, during the same period. Cross-border damage caused by the flooding has been estimated in the billions.

In the after-action review of the flooding, Fire District One (FD1) in Whatcom County (which serves the flooded area) noted the lack of real-time situation reports from the flooding areas. FD1 reached out to the county ARES group, the Whatcom Emergency Communications Group (WECG), to develop a plan for future flood events.

WECG had been using the mapping software **Caltopo/Sartopo** (<http://bit.ly/3HI0U4w>) in conjunction with county Search and Rescue. WECG put together an exercise using ARES and Community Emergency Response Team (CERT) volunteers in field teams to demonstrate the use of the mapping app. Field teams reported hypothetical flood situations via the Sartopo app or VHF and FRS radio. Situation reports (road closed, area flooded, etc.) were posted in real time on the master map at the EOC. In addition, some teams were able to provide drone footage to the EOC. The FD1 chief and the chiefs from neighboring fire districts were able to monitor the exercise as it progressed.

The City of Bellingham's ACS group has run a similar exercise using Sartopo, mimicking the 2021 flood experience. In addition to the use of Sartopo, radio and CERT teams also sent in digital reports and photos using Winlink and *fldigi*.

Bellingham's Emergency Manager was able to follow the exercise live on the EOC master map. See the final map indicating field team routes and reports. Whatcom County has now incorporated the field team/Sartopo mapping approach in to its flood preparedness planning. Cross border emergency managers have also developed coordinated flood response plans. - Jim McCabe, AE7UQ, Whatcom County ARES Emergency Coordinator; and Jim Blattner, KC7JB, Whatcom Emergency Communications Group.

If you want to learn more about the Community Emergency Response Team (CERT) in South Jersey and its current partnership with ARES, please send an email to Bob Keogh (KD2NEC@QSL.NET) Gloucester County ARES Emergency Coordinator.

3. To Learn More about ARES, Go to the ARRL/ARES Web Page (<http://arrl.org/ares>) , where you will find additional information.

Download the ARES Manual [PDF] : <https://bit.ly/3iUhJLQ>

ARES Field Resources Manual [PDF] : <https://bit.ly/3QT4PtY>

ARES Standardized Training Plan Task Book [Fillable PDF] : <https://bit.ly/3wg5kVt>

ARES Standardized Training Plan Task Book [Word] : <https://bit.ly/3ZTNDbR>

ARES Plan : <https://bit.ly/3XLokXH>

ARES Group Registration : <http://bit.ly/3XodGpX>

Emergency Communications Training : <http://bit.ly/3J2gMMf>

Fox Hunt XXVII - Pre-Spring Fox Hunt - 22 Days Until Spring Equinox

By Jim Wright, N2GXJ

Please reserve the date : Sunday, February 26 , 2023!

Why this date? It is in February, it is a Sunday, it is not the “big game” football Sunday (which is Feb 12), it is not part of President’s Day/Mardi Gras weekend (Feb 18-21). And **Frank N3PUU** says he is available that day, which is important because, as the first to find the fox last time, he’s the “Fox” that gets to hide the transmitter this time!



More details for this one will be posted at w2mmd.org on the “GCARC Fox Hunts” page as we get closer to the event.

New to foxhunting? No problem! Maybe partner up with a fellow Club member to hunt together? Just ask at our next Club meeting, or on one of our 2 Meter radio nets.

Really, really, really, really, hope you’ll consider coming out on February 26th to give this a try!

Next one after this will probably be in May, to align with CQ’s 26th Annual Worldwide Foxhunting Weekend on May 13 - 14. 2023.

OPERATING TIP

Get to Know Multiplier Band Plans

It pays to be familiar with the frequency allocations of some of the multipliers you might need in a particular contest. If you're looking for the Japan multiplier on 160 meters in a CW contest, you'll have to look or CQ between 1.810 and 1.825 MHz, or between 1.907 and 1.912 MHz. Those are the only places that JA hams are allowed to operate on 160 meters. In a DX phone contest, you'll hear stations outside the USA operating on 40 meters starting at 7.050 MHz. US frequency allocations for phone operation on 40 meters start at 7.125 MHz, depending on license class.

2023 Clubhouse Projects

Shed :

- Install Electrical Wiring
- Install Lights
- Build Ramp

Replace Interior Front Door

Painting :

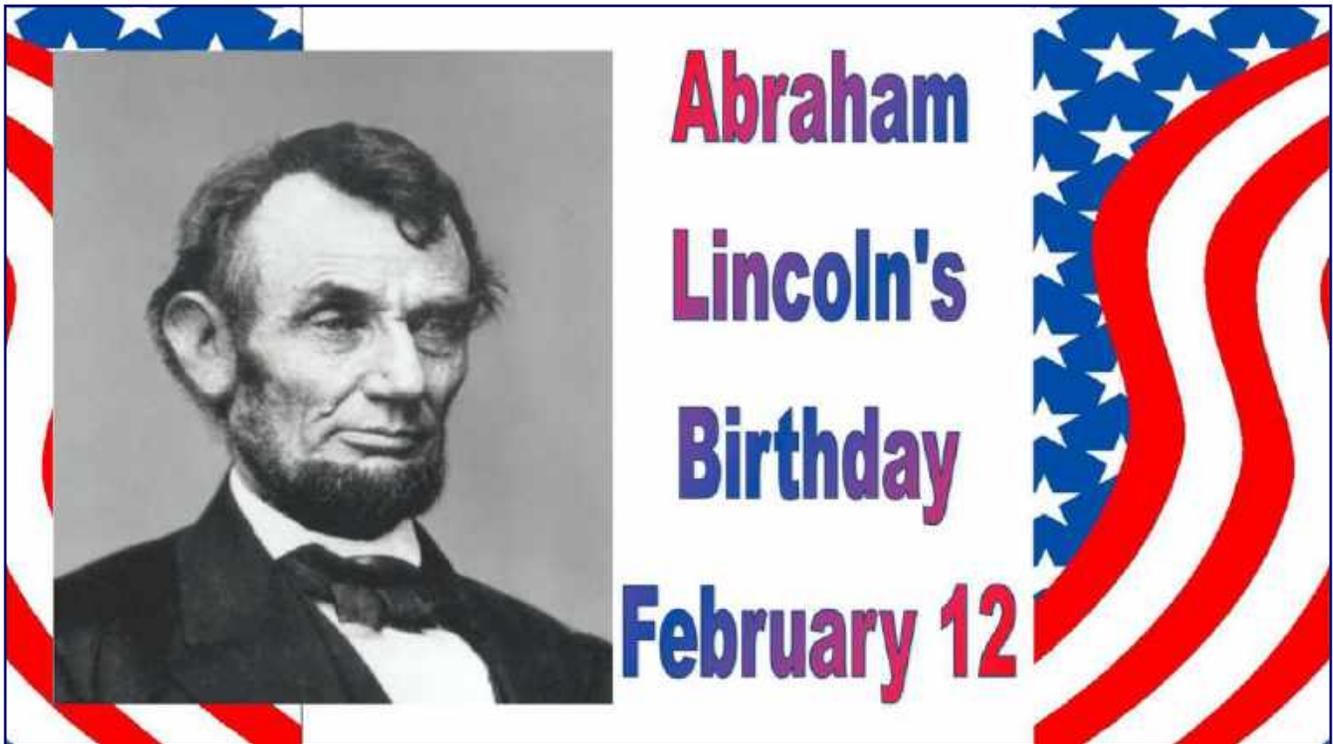
- Back Steps
- Power Pole

VHF/UHF Tower :

- Repair / Replace tower
- Repair / Replace antennas

Lightning Protection Project :

- Install copper strapping in Library Room
- Complete grounding rod installation around Clubhouse and Towers



A club exists to go above and beyond for their communities and for Amateur Radio is what defines a Special Service Club (SSC).



They are the leaders in their Amateur Radio communities who provide active training classes, publicity programs, and actively pursue technical projects and operating activities.

GCARC has been an ARRL Affiliated Club since February 1960 and an SSC since April 2010.



Ascel Æ20204 High Precision LC Meter Build - Part 2

By Chris Prioli, AD2CS



OK - so assembly of the PCB is a relatively simple task, as all of the components are marked as to value and there is a complete bill of materials (BOM) in the manual. The BOM defines exactly which value component is assigned to which component identifier, which are then in turn clearly marked on the PCB. **Figure 6** depicts the PCB component side silk-screen legends. It is a simple matter of following the BOM and the legends on the PCB. That is great for as far as it goes, but it doesn't go quite far enough. The final wiring of the unit is not described at all verbally, leaving the builder to either intuit the wiring or to dope it out from the schematic provided in the manual. In reality, for an experienced builder, either method is acceptable. It is a simple matter of connecting the power switch to the main PCB and also to the power inlet connector, and then also connecting the ground lead from the power inlet connector to the main PCB. The power inlet connector and the power switch must be installed to the enclosure rear panel prior to wiring them up.

My gripe with the lack of instruction in that area deals with the complete novice kit builder, for whom this kit may be a first attempt at kit building. That type of individual may need more direction, as his/her schematic reading skills or circuit understanding level may not be sufficient to allow quick recognition of the connection needs. For example, which of the three terminals on the power inlet connector are to be used, and which one connects to which other circuit point?

An experienced builder will know to make the center pin the positive connection and that the center pin should therefore connect to one side of the power switch. While the center pin being the positive point is not by any means standard, it is none the less the more common methodology and most power supplies are wired for center-positive connection. As to the power switch, it is a standard SPST switch, so it makes no difference to the circuit which terminal is the "in" and which is the "out" position.

That leaves two more terminals on the power inlet connector. Which one is to be used for the negative side connection? To answer that question, a little bit of understanding of the design of the connector is necessary. This type of connector is a switching connector, in which it can switch the unit between, for example, battery power supply or external power supply. Insertion of the external power supply connector plug into the power inlet connector operates a switch, which is a normally-closed switch. If the unit were to have an onboard battery supply, the negative side of the power supply would flow through the power inlet connector's switch and on to the operative circuit. Inserting the external power supply connector into the power inlet connector breaks that path from the battery and instead connects the external supply's negative side to the circuit. So, the end result is that in this kit, rather than worry about which terminal is which on the negative side, and because no battery supply is present, the simplest thing is to just connect the negative wire to both remaining terminals.

The power supply to the main PCB then comes from the second terminal of the power switch (positive) and from the two terminals of the power inlet connector (negative). These connections go to the screw-lock terminals at the power inlet position of the main PCB.

It should be noted that there are two important parts that are not included in this kit and must therefore be supplied by the builder. One is the wire necessary to connect the power inlet and power switch to each other and to the main PCB. The other missing part is a set of rubber feet for the bottom of the enclosure. Fortunately, these are standard stock items in my inventory, so I was not disadvantaged by these items not being included in the kit. However, I was quite frankly surprised by their omission, as this kit is otherwise well thought out and designed.

AD2CS Æ20204 LC Meter Build - Continued on page 25

Final assembly of the Æ20204 involves mounting the enclosure front panel to the main PCB after first pressing the two operating buttons onto the shafts of the tactile switches. The front panel is secured to the PCB via the caps on the banana jacks, as discussed earlier. Locate the enclosure half with the screw holes through it - this will be the lower half of the enclosure. Slide the front panel down into the groove provided for it just behind the front edge of the enclosure half. The PCB will then fit into guides on the floor of the enclosure. Slide the rear panel into the opposite end of the enclosure in the same manner, and then connect the two wires from the rear panel to the appropriate terminals of the screw-lock terminal block on the main PCB. Next, guide the upper half of the enclosure down over the front and rear panels, bringing the enclosure halves together. It may be necessary to ease the PCB slightly one way or the other with a small screwdriver in order to get the PCB to slot into the board guides in the upper enclosure half. Once the halves are fully mated, secure them to each other using the two screws provided for that purpose. Finish up by installing a set of self-stick rubber feet to the bottom of the enclosure.

Operation of the unit is extremely simple. Of course, the unit must be supplied with proper input voltage and current as described earlier, and it is powered “ON” by operating the power switch on the rear panel. The unit is self-calibrating to a zero reading on power-up when the test terminals (banana jacks) are open. The function - either capacitance measurement or inductance measurement - is selected by pressing the “L/C” tactile switch via its button on the front panel. After that, the meter will read the value of the device under test (DUT) directly on the LCD panel. It is important that the test jacks are open during the self-calibration of the unit, including not having any test leads installed. A successful self-calibration depends upon the open jack capacitance of the unit. However, there is a mode under which calibration can be done with the leads installed.

The Æ20204 has a ΔREL mode, which compensates for the existence of attached test leads. When so desired, place the unit in ΔREL mode by pressing the ΔREL tactile switch via its front panel button after the test leads are installed to the unit. The display will now include the word REL in front of the reading. When self-calibrating in ΔREL capacitance mode, the test leads must be open, and when self-calibrating in ΔREL inductance mode, the test leads must be shorted. Repetitive pressing of the ΔREL button will cycle the unit into and out of ΔREL mode. It is important to note that under certain circumstances, for example when removing the test leads after a self-calibration has been done, it is possible for the unit to display negative reading values.

Remember that self-calibration occurs automatically at each and every power-up of the unit. However, there is a means by which a manual self-calibration can be initiated. This is a desirable function due to the fact that there can be some frequency drift in the internal oscillator as the unit stabilizes in temperature, about five to ten minutes after initial power-on. As a result, the display can wander up to a picofarad with such oscillator drift. This is overcome by performing a manual self-calibration. The procedure to initiate a manual self-calibration is to press and hold the ΔREL tactile switch for five seconds. Thus, in order to achieve the best accuracy, measurements should be made after a suitable warm-up and temperature stabilization period has passed, after which a manual self-calibration has been done.

The included CD-ROM includes the manual in both English and German, a full set of drivers for various operating systems, and the communications software in both portable and installable versions. I find it curious that driver support is included for Linux, MacOS and the various Windows® flavors and bitrates, but the software seems to be offered only in a Windows® version. As such, I would have to assume that standard terminal software would suffice on operating systems other than Windows®.

AD2CS Æ20204 LC Meter Build - Continued on page 26

The Windows® software provides for direct polling of the meter regarding either single readings based on the current meter mode, or continuous logging of the meter readings across time, building a history of the readings as they go by. The log can be saved to a disc file if so desired. One caution on the software - attempting to close the active program window without first stopping the data stream from the meter will cause the application to lock. In that case, the Windows® Task manager can be used to close the application. **Figure 7** depicts a screen shot of the active application window with the software in its “logging” mode.

All things considered, this was a fairly simple build that took less than an hour start to finish. The operation of the meter is basically intuitive, but there are some calibration rules to be followed. The quality of the finished product is high, and its appearance is clean and neat. The Ascel Electronic Æ20204 is a piece of test equipment that would be a good fit on any test and repair bench. I am happy that it is on mine.

One final note. Ascel Electronic offers some other devices in the same form factor enclosures, which all have a common appearance. These items include the **Æ20218 Milliohm Meter**, the **Æ20401 5.8GHz Frequency Counter/RF Power Meter**, and the **Æ20125 10MHz Sweep DDS Function Generator**. If these units are anywhere near the quality of this meter, they too would be good additions to any test and repair bench.

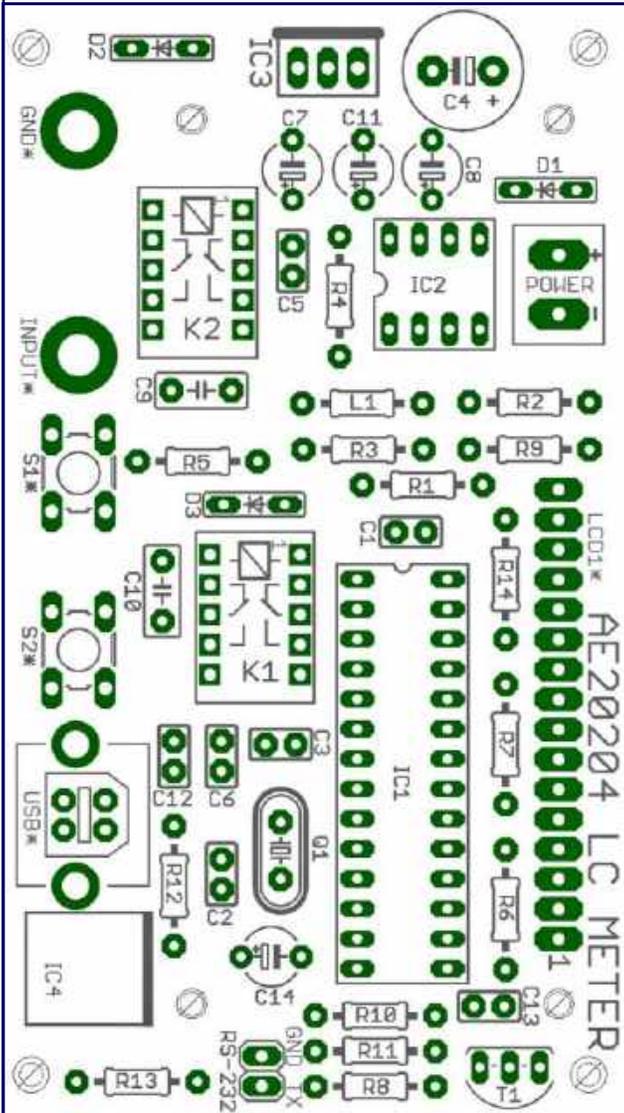


Figure 6 : PCB Screen-Printed Legends

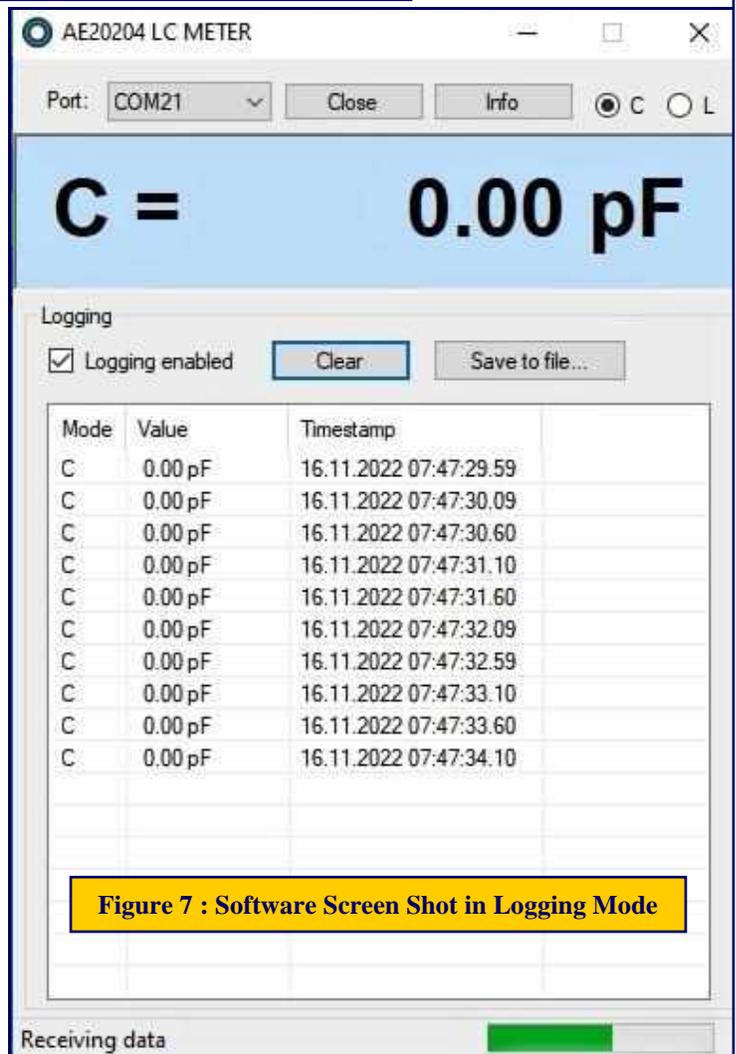


Figure 7 : Software Screen Shot in Logging Mode

W2MMD Clubhouse Test & Repair Bench Equipment and Supplies



A Special Thank You to
Chris AD2CS for donating
the equipment and
organizing these test
benches

- YiHua 948 11-in-1 Solder Station
- Universal Screwdriver Set
- PanaVise PCB vise with full tilt and rotate on parts bin base
- 500 Watt Dummy Load
- 100 Watt Dummy Load
- Heathkit HD-1234 6-position Coax Switch with RG-213 jumpers
- Hook-up Wire :
 - ◆ 18 AWG stranded
 - ◆ 22 AWG solid and stranded
 - ◆ 24 AWG solid and stranded
- Bird 4304A Thru-line Directional Wattmeter
- CMS BE-01 Battery Eliminator 1A/1.5-15V Power Supply
- 12 AWG Red/Black Dual Stranded ZIP Wire
- Simpson 260 Series 5 Analog Multimeter
- CMS ESR-01 Equivalent Series Resistance Meter
- Elenco DT-100 Diode & Transistor Tester
- TekPower TP50SW 50A/13.8V Power Supply
- Elenco XP-720 12.6VAC/5VDC/1.5-15VDC 3A/1A Power Supply
- RSR Electronics Express RSR-3040 15VAC/5VDC/1.5-15VDC 3A/1A Power Supply
- BK Precision 1803D Frequency Counter
- KKmoon MHS-5225 Digital Arbitrary Waveform Signal Generator
- Exact 121 Analog Signal Generator
- Greenlee DM-510A Handheld Digital Multimeter
- HP 34410A Benchtop Digital Multimeter
- BK Precision 1655 Variable isolated AC Supply
- CMS Dim Bulb Current Limiter - 100 Watt
- CMS BDST-01 Signal Tracer
- CMS CRTT-01 Gas-charged Voltage Regulator Tube Tester
- Conar 224 Tube Tester
- GW LCR-814 LCR Meter
- Siglent SDS-1102CML+ Digital Storage Oscilloscope
- DX Engineering Coaxial Cable Gripper and Stripper (RG-8U / RG-213)
- DX Engineering Coaxial Cable Cutter, Trimmer, and Crimper (RG-8U / RG-213)
- DX Engineering RG-8X Die Set for Coaxial Cable Crimper
- Adjustable Wrench Set for Slotted/Recessed Round Nuts
- Speedwox Miniature Box Wrench Sets, Metric and SAE
- 69238 Nut Driver Set, Metric
- 69239 Nut Driver Set, SAE
- Velleman K-8115 Universal Component Tester
- Anderson Powerpole® Connector Assortment
- Anderson Powerpole® Crimping Tool
- Heat Shrink Tube Assortment, cut lengths
- Ring Terminal Assortment
- Alignment Tool Set
- Craftsman Wire Cutter/Crimper
- Craftsman 6-piece Pliers Set
- Laptop PC
- Programming Cable Sets (2)
- Test Lead Set
- Oscilloscope Probe Set

What's on your "Top 10" list this year as part of your lifelong ham radio learning adventure?

By Jim Wright, N2GXXJ

Top 10 lists are not new. I'm used to seeing other people's Top 10 lists. They're easy to read and even easier to disagree with. Making one for yourself, though, for what you want to do this year, is a little harder. Ever try and do this? I'll challenge you with trying to make one based on this question :

What is on your personal top 10 list of things of things you would put on your own "check-off" list to do or learn about in ham radio for this year? Pause for a moment. Can you even come up with 5? It's not that easy, is it?

What prompted this? Well, we just passed the 10th anniversary of the publication of **Dan Romanchik KB6NU's** e-book "**21 Things to Do After You Get Your Amateur Radio License**", which came out around the time I joined our Club. It has been a while since I first saw this list. I remember being overwhelmed, at first. It is a 21 item list, after all, not a top 10 one, and I had so much to learn (and still do)!

Anyway, seeing this list again got me to wondering, how would I score against this list today? And if I was making a "to do" list today, would I put any of these things on it? So I took a look. Surprisingly, at least for me, even though this list is 10 years old, it was very well written. It stands the test of time well, even today. Here's the list. How would you score your own progress?

1. Join a club - did this, thank you GCARC!
2. Join the ARRL - did this, left for a while, but am back now!
3. Find an Elmer - did this, found not one, but many. Thank you GCARC!
4. Buy a radio - did this, starting with an HT and then an old IC7000 for HF (still have it)
5. Get on the air - did this, repeaters at first
6. Set up a shack - did this. And still adding stuff (of course, right?)
7. Buy some tools - did this. Still doing this
8. Buy a digital multimeter (DMM) - I think I got mine for free from a Club member
9. Build an antenna - did this. Started simple with a balun and some wires to make a dipole, but it counts!
10. Build a kit - did this. Got a "tuna can" CW xmit kit after seeing one at a Club presentation on QRP
11. Go to a hamfest - did this, thank you GCARC!
12. Learn the lingo - still learning
13. Subscribe to mailing lists, blogs, and podcasts - did this, still fun to find new ones
14. Upgrade to General - did this, then Extra, thank you GCARC!
15. Go to Field Day - did this, thank you GCARC!
16. Learn Morse Code - still learning, with a re-sparked interest, thanks to (GCARC) Tony's Morse Code class!
17. Get to know your (ham) neighbors - IMHO best part of the hobby. Not just those with us today, but for those who are not who helped me so much along the way these past 10 years, including **Doug Gehring WA2NPD, Jim Mollica K2OWE, Gene Wallace N2IMK, Charlie Sketchley K2PQD, Tom Cusack KC2THO, Joe Everhart N2CX, Ken Newman N2CQ, Ray Schnapp WB2NBJ, Urb LeJeune W1UL, Ray Martin W2RM**, and others. RIP, my friends, so blessed to have been able to know you. You'll never be forgotten.
18. Buy QSL cards - did this. Still got a pile left. Want one?
19. Join SkyWarn, ARES, or RACES - did this

Top 10 List - Continued on page 29

Top 10 List - Continued from page 28

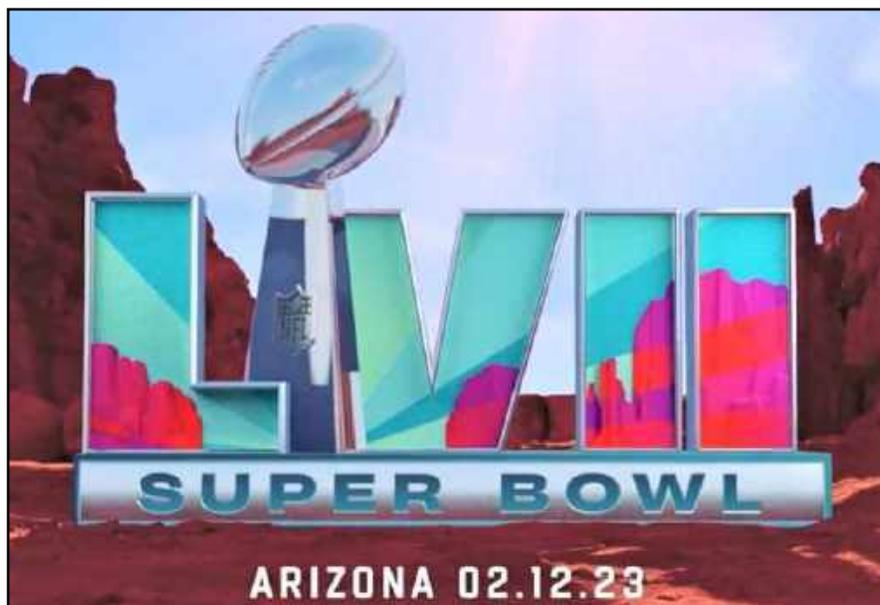
20. Participate in a contest - did this, still doing this (sometimes from the W2MMD Clubhouse)
21. HAVE FUN! - still learning too!

One thing became obvious to me while I was “scoring” myself against the list was just how much I owe to being part of GCARC for the learning and opportunities I’ve had on my continuing Ham Radio learning adventure. Sorry to get all nostalgic on you reading this, but 10 years can seem like a lot, until it has passed, and then it seems like just a blink of an eye. Quite amazing, actually. That list, which was so daunting and intimidating when I first saw it, now reads to me more like a “did” list than a “to do” list!

Which brings me back to the title of this article, the need to come up with an answer for what’s on my/your “top 10” check-off list for this year’s ham radio learning adventure. How about a list like this for this year? (in no particular order)

- Giving back to hobby
 - ◆ Help teach a license prep class
 - ◆ Be a presenter for a program at a GCARC Club meeting
 - ◆ Operate at least once as NCS on ARES/RACES net
 - ◆ Participate as VE in grading tests at a license testing session
 - ◆ Volunteer to a Club office or committee
 - ◆ Help a fellow ham get on air with HF (e.g. at field day this year)
- Amateur Satellite - make at least one contact via repeater on an “FM bird”. Stretch goal : Hear self on sideband through an inverting bird
- Morse Code - make at least 3 on-air Morse code contacts. Stretch goal : Log at least one contact at the CW table at field day
- Fox hunt - participate in at least 2 Club fox hunts. Stretch goal : Get to be the “fox” who hides the transmitter for others to find
- DXCC - get at least 2 new countries added to my confirmed DXCC list at LoTW, any bands

Any other suggestions, anyone? What would you put on your list for this year?



Mark's QRP Excellent Adventures

By Mark Gottlieb, KK2L



On December 31, 2022, I set up a KX3 on my backyard deck using a Chameleon MPAS 2.0 vertical to see how many contacts I could make using 10 watts or less. The vertical was mounted on a DJ speaker stand and stood at about 20 feet. Operated mostly FT8 but also made some SSB contacts. There were 12 contacts in total including Uruguay and Brazil.

On January 1, 2023, I decided to try the Chameleon F Loop 3.0 I got last month since the weather was good enough to be outside. The MagLoop has a remote tuner mechanism which allows me to change bands/frequencies quicker since I don't have to keep going to the antenna to retune. As I did on December 31, I operated at 10 watts or less making a number of contacts including DX. There were 17 contacts, in total, including Brazil, Ecuador, Puerto Rico, and Trinidad/Tobago. MagLoops are most effective operating at a height roughly twice their diameter or about 6 feet above grade. The resonance of the antenna per band changed as the day got later.



| Date | Time | Call | Band | Tx Fre... | Mode | Grid |
|------------|-------|--------|------|-----------|------|--------|
| 2023-01-01 | 20:40 | KP4KGP | 10m | 28.074 | FT8 | FK67wx |
| 2023-01-01 | 20:37 | 9Y4DG | 12m | 24.915 | FT8 | FK901j |
| 2023-01-01 | 20:12 | K2PL | 40m | 7.074 | FT8 | FM26wz |
| 2023-01-01 | 19:58 | PY5BH | 15m | 21.074 | FT8 | GG54jj |
| 2023-01-01 | 19:44 | K6VHF | 15m | 21.074 | FT8 | DM43cg |
| 2023-01-01 | 19:38 | W7PP | 15m | 21.074 | FT8 | DM33up |
| 2023-01-01 | 19:33 | KDØXD | 15m | 21.074 | FT8 | EN12sm |
| 2023-01-01 | 19:30 | ABØR | 15m | 21.074 | FT8 | EN15kb |
| 2023-01-01 | 19:19 | K1UR | 20m | 10.136 | FT8 | FM42Gz |
| 2023-01-01 | 18:35 | WP4MQQ | 10m | 28.074 | FT8 | FK69mj |
| 2023-01-01 | 17:57 | HC2AO | 12m | 24.915 | FT8 | FI08ab |
| 2023-01-01 | 17:49 | NP4TX | 12m | 24.915 | FT8 | FK07cb |
| 2023-01-01 | 17:44 | WBØIMG | 12m | 24.915 | FT8 | ZW04pb |
| 2023-01-01 | 17:42 | CO2QU | 12m | 24.915 | FT8 | EE23cd |
| 2023-01-01 | 17:31 | K8TE | 10m | 28.074 | FT8 | DM65jd |
| 2022-12-31 | 21:37 | KEØPY | 10m | 28.074 | FT8 | DM65jd |

| UTC | dB | DT | Freq | Message |
|--------|-----|------|------|----------------------|
| 172415 | -16 | 0.1 | 1492 | CQ PY1GB GG98 BRAZIL |
| 172430 | Tx | | 1493 | PY1GB KK2L FM29 |
| 172415 | -18 | 0.1 | 1692 | CQ K6SKI DM79 U.S.A. |
| 172434 | Tx | | 1692 | K6SKI KK2L FM29 |
| 172415 | -21 | 0.1 | 2749 | CQ K8TE DM65 U.S.A. |
| 172434 | Tx | | 2749 | K8TE KK2L FM29 |
| 172445 | -18 | -0.0 | 2750 | KK2L K8TE -15 |
| 172500 | Tx | | 2749 | K8TE KK2L R-18 |
| 172530 | Tx | | 2749 | K8TE KK2L R-18 |
| 172545 | -16 | 0.1 | 2750 | KK2L K8TE RR73 |
| 172600 | Tx | | 2749 | K8TE KK2L 73 |
| 172615 | -16 | 0.1 | 2750 | CQ K8TE DM65 U.S.A. |
| 172645 | -18 | 0.1 | 2750 | CQ K8TE DM65 U.S.A. |

Tech Saturday Forum - January 7, 2023 - Happy 8th Anniversary

By Jon Pearce, WB2MNF

Troubleshooting with an Oscilloscope with Chris Prioli AD2CS

Another successful Tech Saturday Forum took place on January 7, 2023 as **Chris Prioli AD2CS** led an interactive training session on the proper use of modern oscilloscopes. Using the Siglent scope from the repair bench as an example Chris covered the basics of scope use, how to take measurements of signals from a scope, the use and calibration of test probes, and how to use a scope to troubleshoot a non-functioning piece of equipment. Attendance was slightly lower than in previous months with about 16 members viewing at various points, but the smaller group facilitated greater individual involvement in the session.



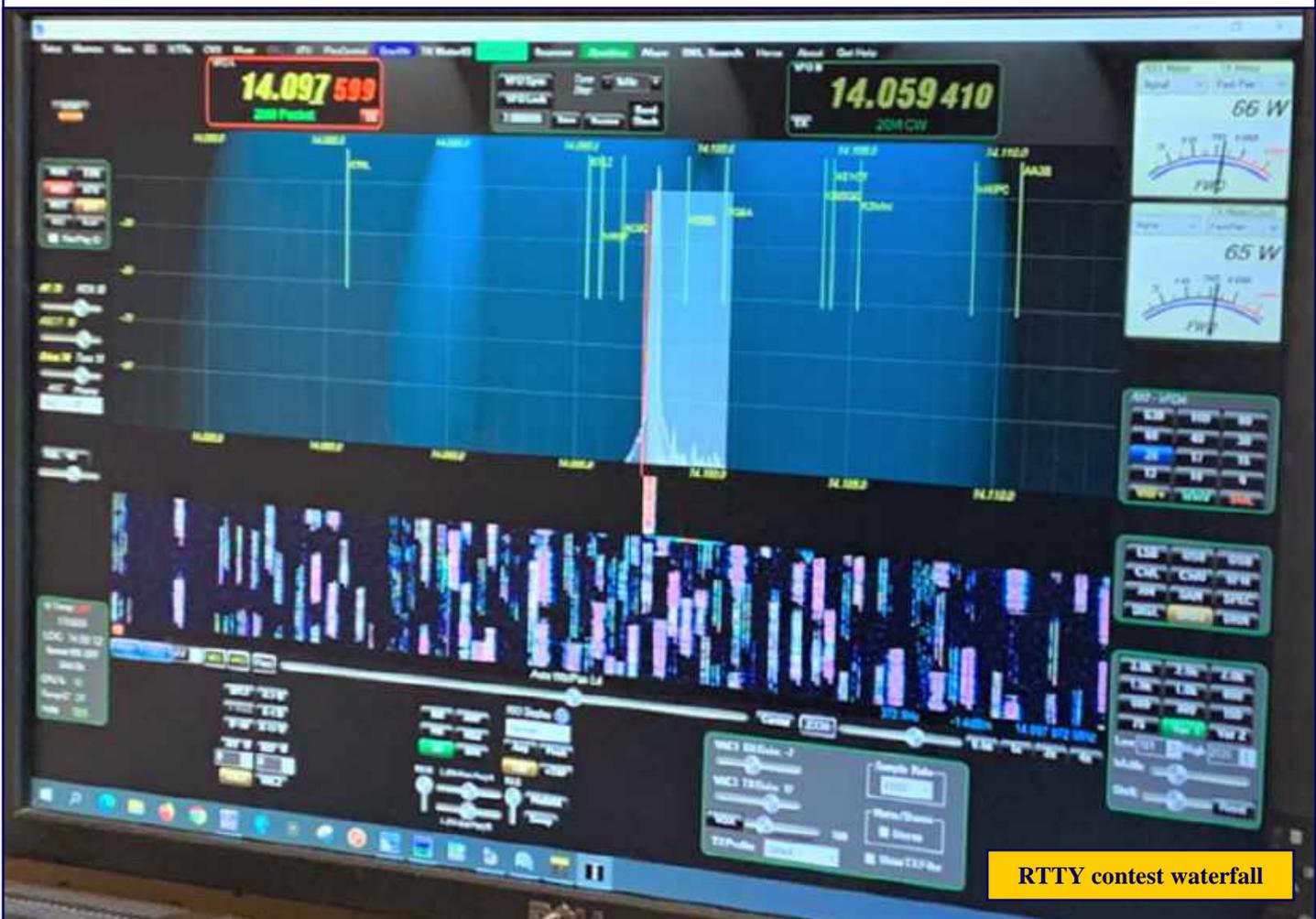
Other members used different parts of the Clubhouse for meeting and discussions during the event. **Sheldon Parker K2MEN** and **Jim Wright N2GXJ** got together in the HF room to discuss their upcoming presentation at the February 1st General Membership Meeting, and Jim also used the test bench to build out a USB-connected foot switch for use with his Flex HF radio. Meanwhile **Karl Frank W2KBF** and I followed up on several issues related to Winlink and other emergency communications issues.

January 2023 Tech Saturday Forum - Continued on page 32

A fascinating ad-hoc discussion arose when **Jerry Barnish K2EAB** and **Mike Thompson KG4JYA** realized that they were both heavily interested in radio astronomy and proceeded to compare notes and make plans for building out capabilities for further research together. A great example of the benefits of the collaboration that's facilitated by the GCARC and member activities at the Clubhouse.

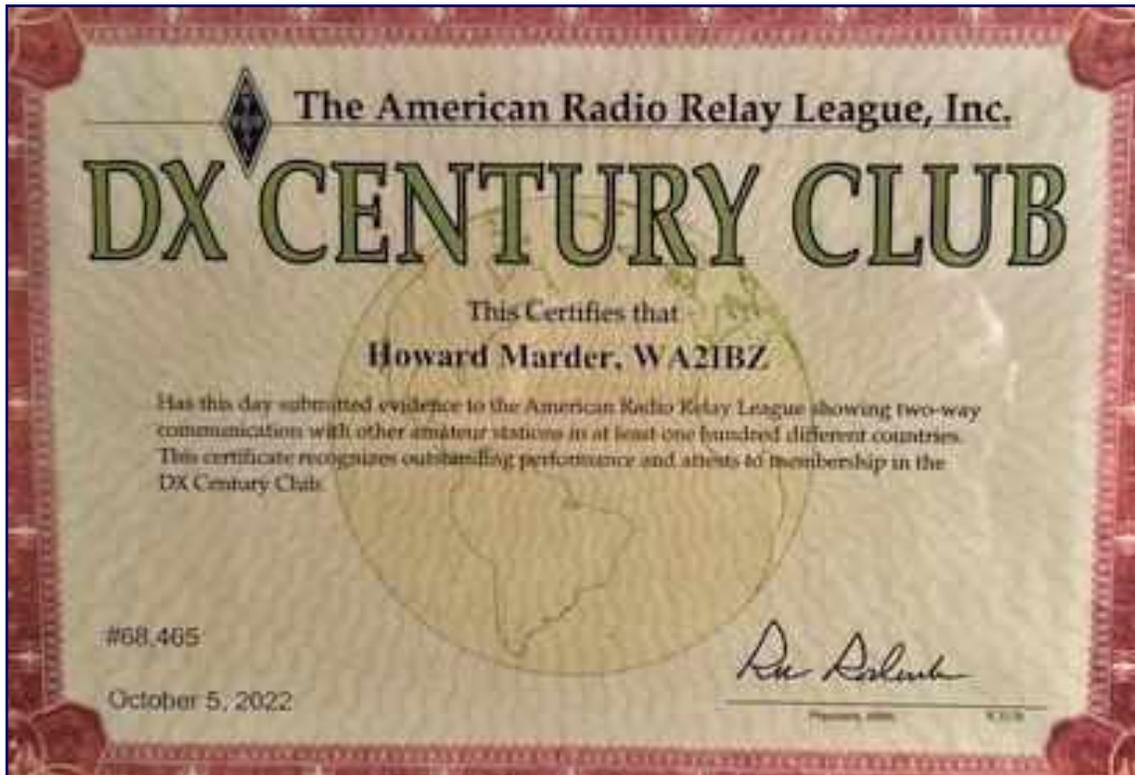
The ARRL RTTY contest started at 1 PM and **Courtney Smith KD2SPJ** came down to the Clubhouse to make some RTTY contacts. RTTY has been largely absent from the ham bands over the past few weeks but it took up the entire digital band area above the FT8 frequencies during the contest as can be seen from the waterfall photo from the Flex radio below. After programming some contest macros in fldigi and setting up the log, Courtney settled in to operate the contest, working stations easily with the great HF equipment.

The next Tech Saturday Forum will be on February 4th, tentatively following up on Jim and Sheldon's presentation on Flex operation at the General Membership Meeting, and will show how to use the HF room's Flex 3000 for various types of operation.





Courtney Smith KD2SPJ operating during the ARRL RTTY Roundup Contest





When All Else Fails: Amateur Radio Helps Rescue Lost Hiker

Editor's note : The following event took place on Sunday afternoon, December 11, 2022, and was told to ARRL News by Raul "Skip" Camejo, AC1LC, Public Information Coordinator for the ARRL New Hampshire Section.

A New Hampshire man and his dog went out for a day hike yesterday in the Belmont area of central New Hampshire. Things went well until his cell phone battery died. With darkness near and a prediction of snow, a leisurely day hike was quickly turning into a serious health and safety issue for the hiker.

Fortunately for him, he is also an amateur radio operator and brought along his digital mobile radio (DMR) handheld radio with him. With no cell phone capability, he made a call on the DMR New Hampshire statewide channel through the Gunstock (Mountain) DMR repeater, seeking assistance. His call was answered by Bill Barber, NE1B, who was monitoring the channel. The hiker asked Barber to call his wife, because he could not text or get "pinged" with his dead cell phone. Barber contacted the hiker's wife, and she was glad to hear that someone was in contact with him. Unfortunately, he did not know exactly where he was and believed he would have to walk through brush for an hour or more to get to a road.

His wife called the local police department, who began a search with their local fire department. Amateur radio was the only communication from about 4:30 to 6:30 PM. Barber was able to make contact with Rick Zach, K1RJZ, who lives closer to the search area, and was familiar with the area's snowmobile trails and roads. Zach coordinated communication between the responding police units and the lost radio operator on the New Hampshire Statewide talkgroup.

Police and fire units attempted to assist in the search by activating their sirens in different locations to try to obtain a location on the ham operator, but he was not able to hear them.

Another amateur radio operator, Chuck Cunningham, K1MIZ, was monitoring the events on Net Watch and noticed that the lost ham had accidentally changed channels. This information was passed along, and 2-meter DMR communication continued until the lost ham walked out to a road and was able to advise searchers of his location. The search and checkout ended successfully at 6:30 PM.

Thanks to the efforts of Bill Barber, NE1B (ARRL Life Member); Rick Zach, K1RJZ (ARRL member), and Chuck Cunningham, K1MIZ.

Barber listed some very important lessons learned from the incident :

- Radio batteries last longer on DMR radios than on analog mode.
- Even his wife had trouble with her cell phone coverage at home.
- Monitor your local state DMR channel to help others nearby.



The amateur radio repeater on the summit of Gunstock Mountain helped connect the lost hiker in a remote area of New Hampshire. The repeater is affiliated with New England Digital Emergency Communications Network, NEDECN.

Amateur Radio Rescues Lost Hiker- Continued on page 35

- You may want to program 146.52 FM next to your state channel for signal strength direction finding if and when you're out of repeater range. Some hams still monitor 146.52 MHz simplex.
- Stay on the primary channel until you know more hams are nearby to directly find your signal.
- Hike with DMR. Network sites cover many areas of New England that do not have any cell service.
- Hike with a flashlight.

And I would like to add one more item to the list. My son is one of the leaders of Pemigewasset Valley (New Hampshire) Search & Rescue Team and unfortunately responds to too many calls for lost hikers. One very important item that he stresses is that hikers file a "flight plan." Let someone who is not going on the hike know where you are going, how long you expect to be gone, and what communication equipment or capability you have with you. This also applies if you are going out hunting, fishing, or boating.

Raul "Skip" Camejo, AC1LC
Public Information Coordinator
ARRL New Hampshire Section
ac1lc@arrl.net

Article Credit : The ARRL Letter for December 15, 2022 - www.arrl.org



November 2022 Volunteer Monitor Program Report

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and the FCC to enhance compliance in the Amateur Radio Service. This is the November 2022 activity report of the VM Program.

- ◆ There were 10 actions for the month. Four notices were sent to Technician operators in Vermont, Arizona, Alabama, and California regarding FT8 transmissions on 40 and 20 meters. Technicians have no FT8 privileges on those bands.
- ◆ Notices concerning excessive bandwidth were sent to operators in South Carolina (transmissions up to 7 kHz wide) and Florida (transmissions 10 kHz wide). Section 97.307(a) of the FCC rules requires that a signal not occupy more bandwidth than necessary for the information rate and emission type, in accordance with good amateur practice.
- ◆ A notice was sent to an operator in Texas concerning an unattended beacon operating on 29.600 MHz, causing interference to normal operations on that frequency.
- ◆ Commendations were issued to operators in Sumter and Columbia, South Carolina, for net operations on 146.715 MHz during Hurricane Ian. Both operators volunteered for shifts exceeding 12 hours and handled over 100 messages for their county EOC, ARES, and AUXCOMM, and the South Carolina Healthcare Emergency Team (SCHEART).
- ◆ An operator in Delaware was issued a notice for operation under an expired license.
- ◆ The Program Administrator participated in one FCC meeting, attended VM Program forums at the Fort Wayne, Indiana, Hamfest and the **Gloucester County Amateur Radio Club in Mullica Hill, New Jersey**, and participated in a virtual meeting concerning the VM Program with the Overlook Mountain Amateur Radio Club in West Hurley, New York.
- ◆ The final totals for VM monitoring during October 2022 were 1,770 hours on HF frequencies, and 2,669 hours on VHF frequencies and above, for a total of 4,439 hours.

Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH



More Amateur Radio Astronauts Head for the International Space Station

Three of the four new astronauts on February's planned launch of the SpaceX Crew-6 mission to the International Space Station (ISS) are amateur radio operators.

Pilot Warren "Woody" Hoburg, KB3HTZ; Commander Stephen Bowen, KI5BKB, and Mission Specialist Sultan Al Neyadi, KI5VTV, will join Mission Specialist Andrey Fedyayev on board the SpaceX Dragon spacecraft, Endeavour.

The spacecraft will be atop a Falcon 9 rocket and, while a launch date has not been selected, the earliest date would be mid-February 2023.

All crew members have learned about **Amateur Radio on the International Space Station (ARISS - <https://www.ariss.org>)**, received guidance on studying and testing, and learned how to operate the ARISS radios and the basics of on-the-air protocol from ARISS team members at NASA's Johnson Space Center.



The four crew members that comprise the SpaceX Crew-6 mission pose for a photo during a training session on the crew access arm at the Kennedy Space Center's Launch Pad 39A in Florida. From left are, Mission Specialist Andrey Fedyayev, Pilot Warren "Woody" Hoburg, Mission Specialist Sultan Al Nedayi, and Commander Stephen Bowen. Photo Courtesy of SpaceX.

The crew will be able to participate in ARISS, using the ham radio station on the ISS to contact schools and other educational institutions.

ARISS is a cooperative venture of international amateur radio societies and the space agencies that support the ISS. In the US, participating organizations include NASA, the ISS National Lab, **ARRL The National Association for Amateur Radio® (<http://www.arrl.org/amateur-radio-on-the-international-space-station>)**, and AMSAT.

Article Credit : The ARRL Letter for January 5, 2023 - www.arrl.org

WORD TO THE WISE

Key Clicks

Key Clicks are caused by the undesirable and unwanted widening of a CW signal due to energy in the signal's sidebands. Contributing factors include the shape of the keying waveform, too-short rise and fall times of the transmitted signal, or variation in the carrier oscillator frequency. Key clicks can sound like thumps or clicks to a receiver tuned with a few kHz of the transmitter frequency. Unscrupulous operators have used key clicks to their advantage by making adjacent frequencies undesirable to use, seeking to gain an unfair advantage in crowded contest conditions. This is against the rules of most contests.



ARRL Volunteers On the Air Event is Underway

ARRL's yearlong operating event, **Volunteers On the Air** (<https://vota.arrrl.org>), or VOTA, began January 1, 2023. The event is organized as part of ARRL's 2023 theme, "Year of the Volunteers," which recognizes the contributions of ARRL member volunteers, and offers opportunities to become more active and involved in amateur radio and ARRL.

VOTA encourages participants to make contacts with ARRL members and volunteers, earning points for each contact. Point values have been assigned (see the **Points Table** at <https://vota.arrrl.org>). All scoring is automatically calculated through ARRL's **Logbook of The World (LoTW)**, <http://www.arrrl.org/logbook-of-the-world>). If you are already an LoTW user, continue to upload your QSOs there to participate. If you're a new LoTW user, visit **Getting Started with LoTW** (<https://lotw.arrrl.org/lotw-help/getting-started>).

As part of the event, there will be week-long activations by W1AW portable stations operating in all US states and territories. W1AW/# portable operations are worth 5 points for each contact, and they can be contacted on all bands and modes. There's also an opportunity to earn the W1AW Worked All States Award. There will be two week-long W1AW operations from each of the 50 states.

Later in the event, an on-line scoreboard, the VOTA Leader board, will be activated, allowing each participant to see how their score measures up with other participants throughout the year.

Only two-way contacts qualify for points (cross-band, cross-mode, and repeater contacts are not valid), using any mode (CW, phone, or digital) - including EME and satellite operations - on 160, 80, 40, 20, 15, 10, 6, 2, and 1.25 meters, as well as 70 centimeters, VHF/UHF/SHF, and microwave bands available to US amateurs above 2 meters (2190-, 630-, 60-, 30-, 17-, and 12-meter band contacts are not counted for credit in this event).

Join the fun! Visit the official VOTA website for further details : <https://vota.arrrl.org>.

Article Credit : The ARRL Letter for January 5, 2023 - www.arrrl.org



**VOLUNTEERS
ON THE AIR 2023**





Blocking Radio Waves and Electromagnetic Interference with the Flip of a Switch

Researchers at the Drexel University College of Engineering have developed a thin film device, fabricated by spray coating, that can block electromagnetic radiation with the flip of a switch. The breakthrough, enabled by versatile two-dimensional materials called MXenes, could adjust the performance of electronic devices, strengthen wireless connections and secure mobile communications against intrusion.

You can read the full article in the **Drexel News** (<http://bit.ly/3WwrfT1>) - Thanks to Brian Moran, N9ADG

Article Credit : The ARRL Contest Update for January 18, 2023 - www.arrl.org



Viewing Reverse Beacon Network FT4 and FT8 Spots

Pete Smith, N4ZR, notes that the Reverse Beacon Network (RBN) also carries FT4 and FT8 spots, but not on the regular feed or website. Clusters wishing to have access to these spots are invited to connect via Telnet to telnet.reversebeacon.net port 7002. If you would like to see what that feed looks like, feel free to connect with PuTTY or another Telnet app, and see for yourself.

An article on the **RBN website** (<http://bit.ly/3WAUBj3>), explains how the RBN handles these spots, and has a partial list of DX clusters that carry the RBN's FT4 and FT8 spots.

Article Credit : The ARRL Contest Update for January 18, 2023 - www.arrl.org



WSJT-X 2.6.1

The WSJT Development Team has announced that WSJT-X 2.6.1 General Availability (GA) release is now available for free download from **SourceForge**. Version 2.6.1 is a bug-fix release, and details can be found in the release notes at :

https://wsjt.sourceforge.io/wsjt-x-doc/Release_Notes_2.6.1.txt.

Users should note that the WSJT-X webpage has moved to : <https://wsjt.sourceforge.io/wsjt-x.html>. Direct links to installation packages for Windows, Linux, and macOS can be found there.

- Thanks to Joe Taylor, K1JT

Article Credit : The ARRL Contest Update for January 18, 2023 - www.arrl.org

OPERATING TIP

In Some Contests, Stick to Whole Numbers for Runs

If you'd like to work as many non-contesters and new contesters as possible, set up your run on integral frequencies. For example, for CW, you might want to pick 1403.5 kHz - not 1403.55 kHz. The skill of tuning a radio is just that - a skill. Some people may have their knob tuning rate set to a larger increment than you might expect, and you might be between frequency jumps as they tune.



QST de W1AW
ARRL Bulletin 1 ARLB001
From ARRL Headquarters
Newington CT January 3, 2023
To all radio amateurs

SB QST ARL ARLB001 W1AW 2023 Winter Operating Schedule

Morning Schedule :

| Time | Mode | Days |
|---------------------|------|----------|
| 1400 UTC (9 AM EST) | CWs | Wed, Fri |
| 1400 UTC (9 AM EST) | CWf | Tue, Thu |

Daily Visitor Operating Hours :

1500 UTC to 2045 UTC - (10 AM to 3:45 PM EST)

Afternoon/Evening Schedule :

| | | |
|----------------------|---------|---------------|
| 2100 UTC (4 PM EST) | CWf | Mon, Wed, Fri |
| 2100 " " | CWs | Tue, Thu |
| 2200 " (5 PM EST) | CWb | Daily |
| 2300 " (6 PM EST) | DIGITAL | Daily |
| 0000 " (7 PM EST) | CWs | Mon, Wed, Fri |
| 0000 " " | CWf | Tue, Thu |
| 0100 " (8 PM EST) | CWb | Daily |
| 0200 " (9 PM EST) | DIGITAL | Daily |
| 0245 " (9:45 PM EST) | VOICE | Daily |
| 0300 " (10 PM EST) | CWf | Mon, Wed, Fri |
| 0300 " " | CWs | Tue, Thu |
| 0400 " (11 PM EST) | CWb | Daily |

Frequencies (MHz)

| | | | | | | | | | |
|-------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| CW : | 1.8025 | 3.5815 | 7.0475 | 14.0475 | 18.0975 | 21.0675 | 28.0675 | 50.350 | 147.555 |
| DIGITAL : - | 3.5975 | 7.095 | 14.095 | 18.1025 | 21.095 | 28.095 | 50.350 | 147.555 | |
| VOICE : | 1.855 | 3.990 | 7.290 | 14.290 | 18.160 | 21.390 | 28.590 | 50.350 | 147.555 |

Notes :

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

W1AW 2023 Winter Operating Schedule - Continued on page 40

W1AW 2023 Winter Operating Schedule - Continued from page 39

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2330 UTC (6:30 PM EST), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0100 UTC (8 PM EST) Thursdays and 0100 UTC (8 PM EST) Fridays.

Audio from W1AW's CW code practices, CW/digital bulletins and phone bulletin is available using Echo-Link via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The audio is sent in real-time and runs concurrently with W1AW's regular transmission schedule.

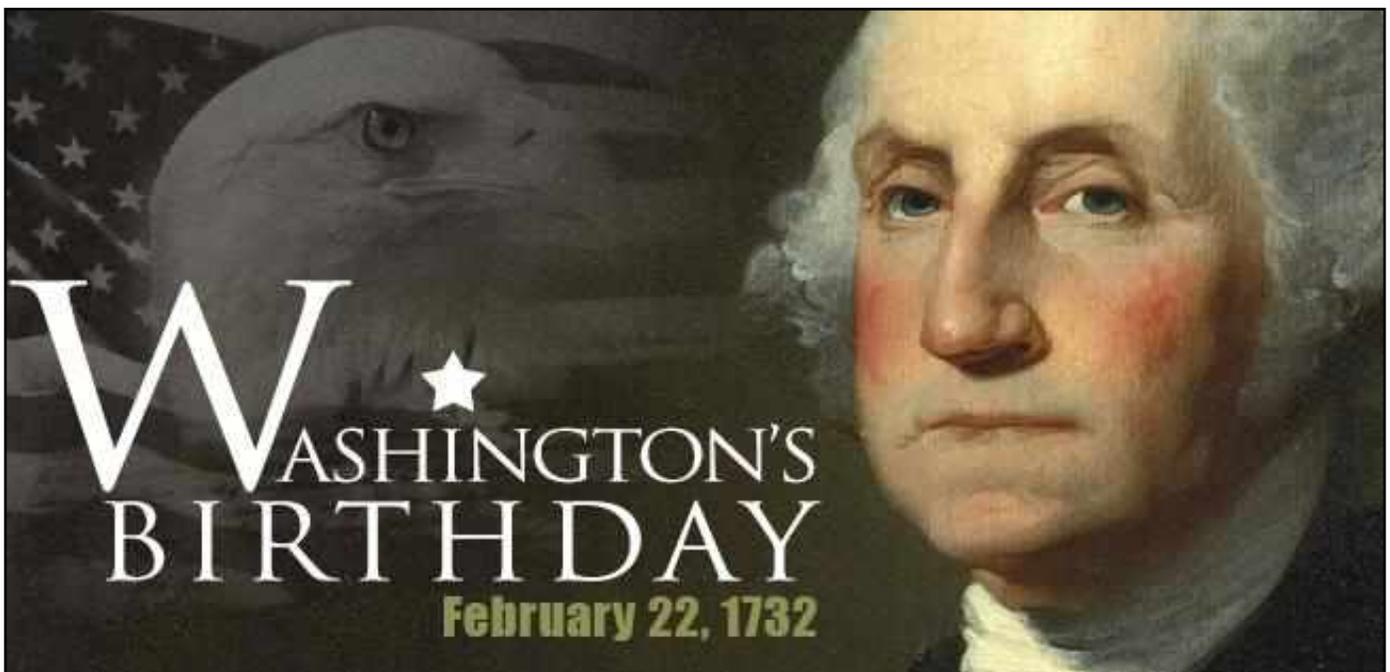
All users who connect to the conference server are muted. Please note that any questions or comments about this server should not be sent via the "Text" window in EchoLink. Please direct any questions or comments to **w1aw <at> arrl <dot> org**.

In a communications emergency, monitor W1AW for special bulletins as follows : Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.

All licensed amateurs may operate the station from 1500 UTC to 2045 UTC (10 AM to 3:45 PM EST). Be sure to bring a reference copy of your current FCC amateur radio license.

The weekly W1AW and monthly West Coast Qualifying Runs are sent on the normal CW frequencies used for both code practice and bulletin transmissions. West Coast Qualifying Run stations may also use 3590 kHz.

The W1AW Operating Schedule may also be found on page 96 in the January 2023 issue of QST or on the web at : <http://www.arrl.org/w1aw-operating-schedule>.



Alphas and IOTAs

Across

- 1. Swiped
- 6. GM OM
- 10. Tuvalu IOTA
- 14. KH6 IOTA
- 15. If's partner (to a programmer)
- 16. Get one's ducks in ____
- 17. __nito
- 18. Stage part
- 19. Poor QTH, say
- 20. Foot covered?
- 22. Means justifiers
- 23. Amplifier knob
- 24. Softrocks, e.g.
- 26. Murphy, e.g.?
- 30. OA denizens, once
- 33. Mother ____
- 34. W4 Beach
- 36. Xmtr pwr plus all following dBs
- 37. 3B6 IOTA
- 39. 6Y IOTA

- 41. Where you might get a 5-down - or maybe five, 5-down's down
- 42. November honorees
- 44. Multiple Elvises?
- 45. F capital bisector
- 47. Carefully did 23-across, with the big knob probably.
- 49. CW
- 51. Hero
- 52. They're turned on by a positive base
- 54. Two cartons of ice cream?
- 60. Kind of IC
- 61. Word often found in IOTA names
- 62. Possible Northern UK prefix

- 63. IRE descendent, in 1963
- 64. Zig or zag
- 65. Where the HV goes
- 66. Western DL river
- 67. Blunders
- 68. Church assembly

Down

- 1. Narrow opening
- 2. Trig function
- 3. How many times a grid can be grossly overdriven
- 4. XW land
- 5. Brewski, to a ham?
- 6. Pacific
- 7. Zoomed in
- 8. LA city
- 9. The 18 and 21 MHz bands?

- 10. See 41-across
- 11. What a K2 can do
- 12. Harry Chapin's callsign?
- 13. Is in the red
- 21. Power problem
- 25. Result of key down amplifier, possibly
- 26. Smooth transition
- 27. Borders both VU and A4
- 28. RTTY char
- 29. G rule in VU
- 31. (The amp.) made an untoward noise
- 32. Hot Springs and others
- 33. Manipulates a key
- 35. Small pet
- 38. Opposite of amp.

- 40. Worked ____ Continents
- 43. Drinker
- 46. More meddlesome
- 48. Types of gears
- 50. North Cook IOTA prefix
- 52. Cloud burner sig.
- 53. "Guilty," e.g.
- 55. ____-friendly
- 56. Easter flower
- 57. Possibly needed to purchase an IC-7800
- 58. Not taken in by
- 59. The last one for DXCC #1, say

| | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | | 6 | 7 | 8 | 9 | | 10 | 11 | 12 | 13 |
| 14 | | | | | | 15 | | | | | 16 | | | |
| 17 | | | | | | 18 | | | | | 19 | | | |
| 20 | | | | | 21 | | | | | | 22 | | | |
| | | | | 23 | | | | | 24 | 25 | | | | |
| | 26 | 27 | 28 | | | | | 29 | | 30 | | | 31 | 32 |
| 33 | | | | | | | 34 | | 35 | | | 36 | | |
| 37 | | | | | | 38 | | 39 | | | 40 | | | |
| 41 | | | | 42 | | | 43 | | 44 | | | | | |
| 45 | | | 46 | | | 47 | | 48 | | | | | | |
| | | 49 | | | 50 | | 51 | | | | | | | |
| 52 | 53 | | | | 54 | 55 | | | | | 56 | 57 | 58 | 59 |
| 60 | | | | | 61 | | | | | 62 | | | | |
| 63 | | | | | 64 | | | | | 65 | | | | |
| 66 | | | | | 67 | | | | | 68 | | | | |

Crossword Puzzle courtesy of <https://www.w2pa.com/Home/articles/crossword-puzzles>

Answers on Page 55

2020-2024 Element 4 Amateur Extra Class License Question Quiz

This month we start with Subelement E2 Operating Procedures (5 exam questions out of 5 groups)
(Answers on ‘Last Page Calendar’)

E2A01

What is the direction of an ascending pass for an amateur satellite?

- A. From west to east
- B. From east to west
- C. From south to north
- D. From north to south

E2A02

Which of the following occurs when a satellite is using an inverting linear transponder?

- A. Doppler shift is reduced because the uplink and downlink shifts are in opposite directions
- B. Signal position in the band is reversed
- C. Upper sideband on the uplink becomes lower sideband on the downlink, and vice versa
- D. All these choices are correct

E2A03

How is the signal inverted by an inverting linear transponder?

- A. The signal is detected and remodulated on the reverse sideband
- B. The signal is passed through a non-linear filter
- C. The signal is reduced to I and Q components and the Q component is filtered out
- D. The signal is passed through a mixer and the difference rather than the sum is transmitted

E2A04

What is meant by the term “mode” as applied to an amateur radio satellite?

- A. Whether the satellite is in a low earth or geostationary orbit
- B. The satellite’s uplink and downlink frequency bands
- C. The satellite’s orientation with respect to the Earth
- D. Whether the satellite is in a polar or equatorial orbit

E2A05

What do the letters in a satellite’s mode designator specify?

- A. Power limits for uplink and downlink transmissions
- B. The location of the ground control station
- C. The polarization of uplink and downlink signals
- D. The uplink and downlink frequency ranges

E2A06

What are Keplerian elements?

- A. Parameters that define the orbit of a satellite
- B. Phase reversing elements in a Yagi antenna
- C. High-emission heater filaments used in magnetron tubes
- D. Encrypting codes used for spread spectrum modulation

Element 4 Amateur Extra Class Quiz - Continued on page 43

E2A07

Which of the following types of signals can be relayed through a linear transponder?

- A. FM and CW
- B. SSB and SSTV
- C. PSK and packet
- D. All these choices are correct

E2A08

Why should effective radiated power to a satellite that uses a linear transponder be limited?

- A. To prevent creating errors in the satellite telemetry
- B. To avoid reducing the downlink power to all other users
- C. To prevent the satellite from emitting out-of-band signals
- D. To avoid interfering with terrestrial QSOs

E2A09

What do the terms “L band” and “S band” specify regarding satellite communications?

- A. The 23 centimeter and 13 centimeter bands
- B. The 2 meter and 70 centimeter bands
- C. FM and Digital Store-and-Forward systems
- D. Which sideband to use

E2A10

What type of satellite appears to stay in one position in the sky?

- A. HEO
- B. Geostationary
- C. Geomagnetic
- D. LEO

E2A11

What type of antenna can be used to minimize the effects of spin modulation and Faraday rotation?

- A. A linearly polarized antenna
- B. A circularly polarized antenna
- C. An isotropic antenna
- D. A log-periodic dipole array

E2A12

What is the purpose of digital store-and-forward functions on an amateur radio satellite?

- A. To upload operational software for the transponder
- B. To delay download of telemetry between satellites
- C. To store digital messages in the satellite for later download by other stations
- D. To relay messages between satellites

E2A13

Which of the following techniques is normally used by low Earth orbiting digital satellites to relay messages around the world?

- A. Digipeating
- B. Store-and-forward
- C. Multi-satellite relaying
- D. Node hopping

Gloucester County Amateur Radio Club General Membership Meeting Minutes Wednesday, January 4, 2023



The meeting opened @ 1930 Hours by President Jonathan Pearce, WB2MNF with the Pledge of Allegiance to the Flag.

ATTENDANCE :

- In person : 33
- ZOOM : 15

Jon began by thanking **Tony Starr K3TS** for his leadership as GCARC President during the past two years, highlighting the challenges that Tony faced including the need to organize ZOOM meetings during the pandemic, deal with the aftermath of the tornado, and Tony's role in locating and transporting a replacement HF tower. Jon then provided an introduction to the Club leaders for 2023, a review of the many Club Resources and Activities and a reminder that dues are due.

Presentations for upcoming meetings include :

- January 4 (tonight) : **Tony Starr K3TS** describing how he achieved 5 band DXCC in 5 years
- February 1 : **Jim Wright N2GXJ** and **Sheldon Parker K2MEN** on Remote FLEX operation
- March 1 : **Nicholas Kreuz KC3RFB** on the Rowan University AIAA rocket project
- April 5 : **Bob Heil K9EID** (topic TBD)
- May 3 : **Randy Smith WU2S** on AREDN/MESH Networking

GUESTS :

- **Benjamin Johnson WB2GUK**, Amateur Extra from Egg Harbor Township.

NEW MEMBERS :

- David Kappler N3DRK, General from Magnolia
- Harry Maloney KE2ALG (via ZOOM), Technician from Vineland
- William Laute KD2YNN (via ZOOM), Amateur Extra from Waterford Works

MINUTES : Minutes from the December General Meeting, as published in The Crosstalk, were approved.

TREASURER : Alan Arrison KB2AYU reported the following YTD Items :

- Income : \$824 from membership dues
- Expenses : \$340
- Net Gain : \$484

Total in all accounts includes the \$25,000 in grant money for the new VHF tower and approximately \$4,000 in the rebuilding fund that will go toward the VHF station. The Budget Committee has met and will present their work at the next BoD meeting for approval. The Treasurer's Report was accepted.

January 2023 General Membership Meeting Minutes - Continued on page 45

CLUBHOUSE : **Alan Arrison KB2AYU** reported that a lot of “tough work” has been accomplished recently (mostly by **Frank Romeo N3PUU**) including electrical wiring, paneling, installation of grounding strips etc. Exterior work, including perimeter grounding, will have to wait until warmer weather arrives. A 4-position antenna switch has been installed at the HF station, allowing operators to select between the IC-7300, FLEX 3000, remote operation or their own radio that they can bring in. The Elecraft linear amplifier that was on loan from **John Hill W2HUV** has now been formally donated to the Club.

The Clubhouse will be open for the upcoming VHF contest. We expect to operate on 6 meters, 2 meters, 222 MHz and 432 MHz. Alan installed a 6 meter beam on the old (damaged) VHF tower. VHF antennas that were damaged are being repaired and Alan will make his tower trailer available for use this Winter.

CLUB NETS : For the year 2022, **Steve Farney W2SEF** reported an average of 10.9 check-ins each week to the Tuesday Noon Nets and 10.8 check-ins to the Thursday Evening Nets.

DX and CONTESTS : **Tony Starr K3TS** noted the upcoming North American CW QSO Party beginning January 14 and the North American SSB QSO Party the following weekend. The CQ 160 Meter CW contest will take place in late January.

REPEATERS : No report.

EDUCATION : **Chris Prioli AD2CS** reminded us that the next round of licensing classes will begin the week of February 13. Chris would like to find Club members to help with teaching duties. The Monday TechNet (formerly the DigiNet), which occurs on the 1st and 3rd Monday of each month, is now covering FT8 and related modes, lead by **Steve Farney W2SEF**.

TECHNICAL COMMITTEE : **Jonathan Pearce WB2MNF** reported :

- The last Tech Saturday, which covered 3D printing and CAD, was attended by 18 persons
- The topic for the next Tech Saturday will be Troubleshooting with Oscilloscopes, lead by **Chris Prioli AD2CS**. Also, we plan to get on the air for the RTTY contest
- Jon presented a list of possible Tech Saturday topics and is looking for volunteer presenters
- A FLEX 6400 radio and transverters for the new VHF room, funded by the GCARF grant, have been received. Amplifiers are not expected to arrive for several months
- A generous donation from a Club member was received and matched by Benevity
- A new miniPC, donated by **Karl Frank W2KBF**, has been installed at the Club’s Winlink station
- **Frank Romeo N3PUU** and Jon were at the Clubhouse during a recent meteor shower and were able to hear signals on 6 and 2 meters that were propagated via meteor scatter but were unable to make any contacts

CONSTITUTION COMMITTEE : **Ron Block NR2B** read a REVISED motion to amend ARTICLE VI of the GCARC Constitution. This will modify the membership application process and eliminate the need for a sponsor to sign an application form. The revised motion will be published in The Crosstalk, read again at the February General Membership Meeting, then voted upon at the March meeting. This amendment will require an approval of 75% to pass.

FOXHUNT : Marc Federici WM2Y hid the transmitter at the Tranquility Trails park on the outskirts of Swedesboro. **Frank Romeo N3PUU** was first to find the fox, followed shortly by **Alan Arrison KB2AYU** and a bit later by the rest of the hunters.

OLD BUSINESS : None

NEW BUSINESS : None

MISCELLANEOUS :

John Hill W2HUV noted a scheduling conflict that occurs between SJRA meetings and dinners at the Club-house on the 4th Wednesday of each month.

Mark Gottlieb KK2L brought a tripod that he is giving away.

William Sheppard WA2KMS reported that **Phyllis Martin W2PDB** has spare antenna towers for sale. Interested persons should contact Phyllis for information.

The program following the General Membership Meeting tonight will be **Tony Starr K3TS** discussing how to achieve 5 Band DXCC.

The meeting was adjourned @ 2036 Hours.

Respectfully Submitted,
Karl Frank W2KBF,
GCARC Recording Secretary



Gloucester County Amateur Radio Club

Board of Directors Meeting Minutes

Wednesday, January 11, 2023



Meeting opened @ 1903 Hours by President Jonathan Pearce WB2MNF.

ATTENDANCE :

- President Jonathan Pearce WB2MNF
- Vice President Ron Block NR2B
- Treasurer Alan Arrison KB2AYU
- Recording Secretary Karl Frank W2KBF
- Corresponding Secretary Frank Romeo N3PUU
- Director Chuck Colabrese WA2TML
- Director Jeff Garth WB2ZBN
- Director Jim Wright N2GXJ (via ZOOM)
- Director Chris Prioli AD2CS
- Trustee John O'Connell K2QA (via ZOOM)
- Member Gary Reed N2QEE

MINUTES : The minutes of the December BoD Meeting were approved.

President Jonathan Pearce WB2MNF presented a diagram, or “Club Model” showing all the functions and moving parts of GCARC, including the standing committees. In brief, Jon wants to focus upon marketing to recruit new members, efforts to maintain current members, providing good content and activities, and securing adequate resources. Jon wants to create a questionnaire to collected data on Club members and their interests. **Karl Frank W2KBF** said that the Fair Lawn ARC has done this for several years and Jon asked if we could obtain a sample questionnaire from FLARC.

BUDGET : **Alan Arrison KB2AYU** presented a proposed GCARC budget for 2023. The BoD approved this budget after adding Education Expenses as a line item. This amended budget will be presented to the General Membership for final approval.

TREASURER : **Alan Arrison KB2AYU** reported YTD Budgeted Items :

- Income : \$1,576
- Expenses : \$610
- Net Gain : \$966

Total in all accounts includes the \$25,000 grant money.

CLUBHOUSE : **Alan Arrison KB2AYU** said that while much remains to be done, the current effort is to put together a station for participation in the upcoming VHF contest. The new FLEX radio will be used on 6 Meters (no plan right now to use transverters for other bands). **Frank Romeo N3PUU** has been obtaining specifications for the new VHF tower from the manufacturer **Sabre**, which will be purchased from the vendor **Tesco**. Flagging for the VHF tower installation has been ordered. **Chris Prioli AD2CS** will follow up. We need to clarify the procedure for clearing the Clubhouse alarm since it was set off accidentally last weekend, resulting in the arrival of a police officer. And to maintain security, the key code to the front door must be changed.

January 2023 Board of Directors Meeting Minutes - Continued on page 48

NEW MEMBER APPLICATIONS :

The following applications were received and approved :

- Vincent Antonelli Sr, KA2APD, General Class from Scarsdale, NY
- Gary Castellini, N2IEC, Advanced Class from Vineland, NJ
- Benjamin Johnson WB2GUK, Amateur Extra Class from Egg Harbor Township
- William Robinson KD2ANM, (Returning member) General Class from Franklinville
- Marty Wilt W2ILT, (Returning member) General Class from Laurel Springs

CLUB NETS : Participation has been down recently. **Chris Prioli AD2CS** said only 5 people checked in to the most recent Tuesday Noon Net.

EDUCATION COMMITTEE : **Chris Prioli AD2CS** is looking for additional instructors for the licensing classes. We already have a TechNet running on the 1st and 3rd Mondays of each month at 8 PM and **Jonathan Pearce WB2MNF** floated the idea of adding a “HELP NET” on the Mondays when the TECH NET is not scheduled.

CONSTITUTION : Suggestions from BoD members for improvements to the Constitution are being collected online.

OLD BUSINESS : None

NEW BUSINESS :

- **Jeff Garth WB2ZBN** asked if applications for new membership must be held until the next BoD meetings, or if approvals could be made between meetings via email. It was decided to permit approval of membership applications by email.
- A motion was made and passed to elect **Tony Starr K3TS** to the board of the Gloucester County Amateur Radio Foundation. (Explanation : As past GCARC President, Tony had been an ex-officio member of the board. This motion allows him to remain on the board). The other Club appointed GCARF board member is **Jeff Garth WB2ZBN**.

MISCELLANEOUS :

- **Gary Reed N2QEE** announced that the VE session previously scheduled for February 9th has been rescheduled to February 16th.
- The BoD confirmed that dinners at the Clubhouse will be held on the 4th Wednesday of each month.
- **Jonathan Pearce WB2MNF** will send a letter of thanks to **Ameritech Services** for giving us a break on the cost of the new Clubhouse roof and to **Tom Abernethy W3TOM** as he steps down from serving as ARRL Atlantic Division Director.
- A member who is interested in making a donation to the Club asked if a DONATE button could be added to the Club website. The BoD approved this in principle, and needs to consider how this will be implemented.

The meeting was adjourned @ 2102 Hours.

Respectfully Submitted,
Karl Frank W2KBF,
GCARC Recording Secretary

WAE DX Contest, RTTY
November 12, 2022

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : Single Op HP
QTH : SNJ
Operating Time (hrs) : 1.5
Location : USA

Summary :

| Band | QSOs | QTCs | Mults |
|----------------------------|-----------|----------|-----------|
| 40 : | 5 | 0 | 15 |
| 20 : | 24 | 0 | 30 |
| Total : | 29 | 0 | 45 |
| Total Score : 1,305 | | | |

Club : Frankford Radio Club 44

Comments :

Rig : FTDX-9000D/OM Power 2000A+/Signalink USB
Antennas : C3S tribander, 40m dipole @ 80ft

OK only 2nd time entering this contest. Have to practice sending QTCs next year (having never sent any in WAE CW or WAE SSB). Very limited time, but got on when I could.

73 and CU in ARRL SS SSB next weekend,

Darrell AB2E

Contest : WAERTTY

| Band | Q/QTC | QSOs | Pts | Mlt | Pt/Q |
|--------------|------------|-----------|-----------|-----------|------------|
| 7 | QSO | 5 | 5 | 15 | 1.0 |
| 14 | QSO | 24 | 24 | 30 | 1.0 |
| Total | All | 29 | 29 | 45 | 1.0 |

Score : 1,305

1 Mult = 1.0 Q's

ARRL Sweepstakes Contest, SSB
November 19, 2022

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : SO Unlimited HP
QTH : SNJ
Operating Time (hrs) : 7.5

Summary :

| Band | QSOs |
|-----------------------------|------------|
| 80 : | 161 |
| 40 : | 140 |
| 20 : | 43 |
| 15 : | 24 |
| 10 : | 5 |
| Total : | 373 |
| Sections : 82 | |
| Total Score : 61,172 | |

Club : Frankford Radio Club 45

Comments :

Rig : FTDX-9000D/OM Power 2000A+ amp
Antennas : C3S Force 12 tribander 10,15,20
40m dipole @ 80ft
75m dipole @ 90ft

Thought I would only have about 3hrs to look for mults. Was able to get on at 2330Z Sun until the end. Missed ONN and SB for the Sweep. Caught VY1AAA , AK, PAC in the first hour. All S&P except last 2 hours on Sun evening when I had a nice 75m run.

CU next weekend for CQWW CW!

73 Darrell AB2E

Contest : SSSSB

| Band | QSOs | Pts | Sec | Pt/Q |
|--------------|------------|------------|-----------|------------|
| 3.5 | 161 | 322 | 4 | 2.0 |
| 7 | 140 | 280 | 33 | 2.0 |
| 14 | 43 | 86 | 17 | 2.0 |
| 21 | 24 | 48 | 23 | 2.0 |
| 28 | 5 | 10 | 5 | 2.0 |
| Total | 373 | 746 | 82 | 2.0 |

Score : 61,172

1 Mult = 4.5 Q's



**CQ Worldwide DX Contest, CW
November 26, 2022**

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : SO(A)AB HP
QTH : SNJ
Operating Time (hrs) : 36
Location : USA

Summary :

| Band | QSOs | Zones | Countries |
|------|------|-------|-----------|
|------|------|-------|-----------|

| | | | |
|-------|-----|----|-----|
| 160 : | 25 | 8 | 14 |
| 80 : | 194 | 21 | 79 |
| 40 : | 256 | 25 | 89 |
| 20 : | 487 | 28 | 102 |
| 15 : | 266 | 29 | 104 |
| 10 : | 346 | 26 | 95 |

Total : 1,574 137 483
Total Score : 2,776,980

Club : Frankford Radio Club 47

Comments :

Rig : FTDX-9000D/OM Power 2000A+ amp
Antennas :
160m - Inverted L over 100ft tree
80m - dipole @ 90ft
40m - dipole @ 95ft
Low band RX antenna - HiZ4 4-square array.
10m,15m,20m - Force 12 C3S Tribander, @ 52ft on AB-577 military mast, rotatable.

Wow, what a blast! CW is my favorite mode. Incredible condx in general, except for 160 for my QTH. The new (to me) HiZ4 RX array install was finished on Thu and tested, it helped some on 160, but really did wonders on 80 and 40. Incredible f/b and excellent forward gain in the direction pointed, with excellent nulls. It's been many years since I had a Yagi up, or an RX antenna. Both were realized this year with the AB-577 military mast and HiZ4. I could easily hold a frequency on 10,15,and 20 for CQing and had excellent runs on the high bands both mornings. Runs on 40/80 were equally good for the time I spent there. 160 was very poor Fri night, but improved enough on Sat I was able to work a few EU double mults.

This is an all-time high score for me from home. Also a new personal multiplier record, with combined zones/countries finishing at 620 in the log. A few more mults on 10m and 40m, and I would have made DXCC on 4 bands, and 80m was only 21 mults behind at 79. Every band was productive, and I'm very pleased with the results of my small antenna farm. 36 hours was spent in the chair out of 48. Only took a 2hr nap the first night, but had to sleep more the 2nd night.

**CQ Worldwide DX Contest, CW
November 26, 2022**

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : SO(A)AB HP
QTH : SNJ
Operating Time (hrs) : 32.5
Location : USA

Summary :

| Band | QSOs | Zones | Countries |
|------|------|-------|-----------|
|------|------|-------|-----------|

| | | | |
|-------|-----|----|-----|
| 160 : | 10 | 5 | 7 |
| 80 : | 90 | 11 | 52 |
| 40 : | 226 | 23 | 79 |
| 20 : | 377 | 30 | 101 |
| 15 : | 434 | 28 | 106 |
| 10 : | 180 | 23 | 77 |

Total : 1,317 120 422
Total Score : 2,029,248

Club : Frankford Radio Club 48

Comments :

A new all-time high score for me, and my first time over 2 million points. But conditions, at least for me, were not as good as they were last month in SSB. Specifically, I was expecting more from 10m and was kind of disappointed, and my notes from last year indicated a similar fate. I also had great difficulty hearing Europe on 40 and 80 in the last 2 or 3 hours of the contest, for whatever reasons. Still, it is nice to be able to post a 2M score from my noisy suburban location with just a tri-bander and some wires. Thanks to all who called or answered, and hope to see everyone in the next one. Until then, 73. de K3TS

Great to see so much activity on CW! Thanks to all for the QSOs, and great to work so many friends.

CU in ARRL 160m contest next weekend!

73 Darrell AB2E

Contest : CQWWCW

| Band | QSOs | Pts | ZN | Cty | Pt/Q |
|-------|-------|-------|-----|-----|------|
| 1.8 | 25 | 55 | 8 | 14 | 2.2 |
| 3.5 | 194 | 529 | 21 | 79 | 2.7 |
| 7 | 256 | 726 | 25 | 89 | 2.8 |
| 14 | 487 | 1,414 | 28 | 102 | 2.9 |
| 21 | 266 | 759 | 29 | 104 | 2.9 |
| 28 | 346 | 996 | 26 | 95 | 2.9 |
| Total | 1,574 | 4,479 | 137 | 483 | 2.8 |

Score : 2,776,980

1 Mult = 2.5 Q's

To be added to the DX HONOR ROLL,
Please contact Ernest Kraus, KD2EAV
meanddelcanotc@verizon.net



To all DXCC participants.

It is each participants responsibility to send to me their confirmed DXCC update number by the 15th of the month. I have to get it to Jeff the editor of the Club newsletter by 20th deadline. If you do not, it will appear in the next month's edition. I do not see the Club Log.

Thanks
Ernest Kraus
The DXCC counter
KD2EAV

| Name/Callsign | DXCC |
|---------------------------------|------------|
| Bill Grim, W0MHK | 352 |
| Dave Strout, W2YC | 349 |
| Darrell Neron, AB2E | 328 |
| John Hill, W2HUV | 252 |
| Ken Denson, WB2P | 248 |
| Vinnie Sallustio, N4NYY | 238 |
| Tony Starr, K3TS | 218 |
| Dennis Sandole, K2SE | 204 |
| Jim Wright, N2GXJ | 200 |
| Matt Wilson, K2MFW | 195 |
| Sheldon Parker, K2MEN | 178 |
| Christopher Wawak, KC2IEB | 141 |
| Howard Marder, WA2IBZ | 139 |
| Eric Morris, N2BRJ | 127 |
| Phil Nunzio, WA3RGY | 125 |
| Steve Farney, W2SEF | 111 |
| Rich Subers, W2RHS | 108 |
| Bart Kleczynski, AC2PT | 106 |
| Chuck Capasso, WB2PGE | 103 |
| Curt Myers, K2CWM | 91 |
| Harry Strahlendorf Jr, W3DNQ | 87 |
| Jim Clark, KA2OSV | 68 |
| Lee Marino, N2LAM | 62 |
| Updated As Of 01/24/2023 | |



Regional Skywarn Websites For On-Line And In-Person Training Classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/skywarn

State College, PA Skywarn : www.weather.gov/ctp/skywarn

Pittsburgh, PA Skywarn : www.weather.gov/pbz/skywarn

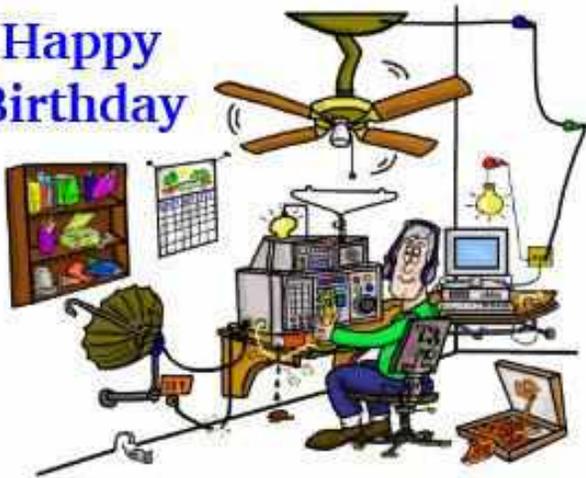
Skywarn Forum : Skywarn Storm Spotter and Weather Discussions :
<https://www.skywarnforum.com>

February Birthdays

Congratulations to our members who are celebrating a birthday this month

Joshua Bradway
Todd Cecilio, KA2YNT
Greg Ciraula, W5DO
Chuck Colabrese, WA2TML
Ed De Fonzo, W2DE
Vinnie Sallustio, N4NYY
Bill Szkromiuk, W4WCS
Mario Tagliaferri, W3CGS
Jean Wilson-Kinney, KE2AHV
Teng Xu, KE8BII

Happy
Birthday



In Memoriam - February Birthdays

Silent Keys :

Philip Bakanowsky, WB2ONS
Barbara Bielecki, N2SBP

Marla Bozarth, N2DWR (President 1992)

Thomas Cusack, KC2THO

Milton Goldman, K3WIL
(President 1963, Charter Member)

Robert Grimmer Sr, KN2QWO

Richard Harkins, N3RYO

Harry Lauer, N3ISO

William Lewitt, N2NLK

Harold Mathis, NJ2C

Harry McCormick Sr, WA2SEA

George Munns Jr, KB2GW

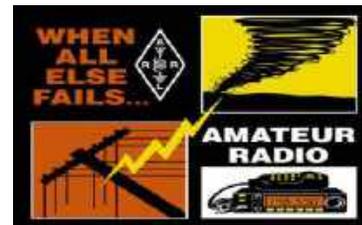
Richard Munyan Sr, W2RCM

Herbert Schuler, K2HPV (President 1977)

William Uhland, K4IDJ (Charter Member)

John Yeager Jr, N2PKF

Alvin Zipkin, KZ2N



Full Snow Moon - February 5, 2023

February's Full Snow Moon reaches peak illumination on Sunday, February 5, at 1:30 P.M. EST. The explanation behind February's full Moon name is a fairly straightforward due to the typically heavy snowfall that occurs in February. On average, February is the United States' snowiest month, according to data from the National Weather Service. In the 1760s, Captain Jonathan Carver, who had visited with the Naudowessie (Dakota), wrote that the name used for this period was the Snow Moon, "because more snow commonly falls during this month than any other in the winter."

Old Farmer's Almanac - www.almanac.com

February 2023 Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

| | |
|---|--|
| QRP Fox Hunt | 0200Z-0330Z, Feb 1 |
| Phone Weekly Test | 0230Z-0300Z, Feb 1 |
| A1Club AWT | 1200Z-1300Z, Feb 1 |
| CWops Test | 1300Z-1400Z, Feb 1 |
| VHF-UHF FT8 Activity Contest | 1700Z-2100Z, Feb 1 |
| Mini-Test 40 | 1700Z-1759Z, Feb 1 |
| Mini-Test 80 | 1800Z-1859Z, Feb 1 |
| CWops Test | 1900Z-2000Z, Feb 1 |
| UKEICC 80m Contest | 2000Z-2100Z, Feb 1 |
| Walk for the Bacon QRP Contest | 0000Z-0100Z, Feb 2 and 0200Z-0300Z, Feb 3 |
| CWops Test | 0300Z-0400Z, Feb 2 |
| CWops Test | 0700Z-0800Z, Feb 2 |
| NRAU 10m Activity Contest | 1800Z-1900Z, Feb 2 (CW) and 1900Z-2000Z, Feb 2 (SSB) and 2000Z-2100Z, Feb 2 (FM) and 2100Z-2200Z, Feb 2 (Dig) |
| SKCC Sprint Europe | 2000Z-2200Z, Feb 2 |
| NCCC RTTY Sprint | 0145Z-0215Z, Feb 3 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 3 |
| NCCC Sprint | 0230Z-0300Z, Feb 3 |
| K1USN Slow Speed Test | 2000Z-2100Z, Feb 3 |
| Vermont QSO Party | 0000Z, Feb 4 to 2400Z, Feb 5 |
| 10-10 Int. Winter Contest, SSB | 0001Z, Feb 4 to 2359Z, Feb 5 |
| F9AA Cup, CW | 1200Z, Feb 4 to 1200Z, Feb 5 |
| European Union DX Contest | 1200Z, Feb 4 to 1200Z, Feb 5 |
| Mexico RTTY International Contest | 1200Z, Feb 4 to 2359Z, Feb 5 |
| FYBO Winter QRP Sprint | 1400Z-2400Z, Feb 4 |
| Minnesota QSO Party | 1400Z-2400Z, Feb 4 |
| British Columbia QSO Party | 1600Z, Feb 4 to 0359Z, Feb 5 and 1600Z-2359Z, Feb 5 |
| AGCW Straight Key Party | 1600Z-1900Z, Feb 4 |
| North American Sprint, CW | 0000Z-0359Z, Feb 5 |
| K1USN Slow Speed Test | 0000Z-0100Z, Feb 6 |
| ICWC Medium Speed Test | 1300Z-1400Z, Feb 6 |
| OK1WC Memorial | 1630Z-1729Z, Feb 6 |
| ICWC Medium Speed Test | 1900Z-2000Z, Feb 6 |
| RSGB 80m Club Championship, SSB | 2000Z-2130Z, Feb 6 |
| Worldwide Sideband Activity Contest | 0100Z-0159Z, Feb 7 |
| ARS Spartan Sprint | 0200Z-0400Z, Feb 7 |
| ICWC Medium Speed Test | 0300Z-0400Z, Feb 7 |
| NAQCC CW Sprint | 0130Z-0330Z, Feb 8 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 8 |
| Phone Weekly Test | 0230Z-0300Z, Feb 8 |
| A1Club AWT | 1200Z-1300Z, Feb 8 |
| CWops Test | 1300Z-1400Z, Feb 8 |
| Mini-Test 40 | 1700Z-1759Z, Feb 8 |
| VHF-UHF FT8 Activity Contest | 1700Z-2100Z, Feb 8 |
| Mini-Test 80 | 1800Z-1859Z, Feb 8 |
| CWops Test | 1900Z-2000Z, Feb 8 |
| CWops Test | 0300Z-0400Z, Feb 9 |
| CWops Test | 0700Z-0800Z, Feb 9 |
| EACW Meeting | 1900Z-2000Z, Feb 9 |
| NCCC RTTY Sprint | 0145Z-0215Z, Feb 10 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 10 |
| NCCC Sprint | 0230Z-0300Z, Feb 10 |
| K1USN Slow Speed Test | 2000Z-2100Z, Feb 10 |
| CQ WW RTTY WPX Contest | 0000Z, Feb 11 to 2359Z, Feb 12 |
| SARL Field Day Contest | 1000Z, Feb 11 to 1000Z, Feb 12 |
| Asia-Pacific Spring Sprint, CW | 1100Z-1300Z, Feb 11 |
| Dutch PACC Contest | 1200Z, Feb 11 to 1200Z, Feb 12 |
| KCJ Topband Contest | 1200Z, Feb 11 to 1200Z, Feb 12 |
| SKCC Weekend Sprintathon | 1200Z, Feb 11 to 2400Z, Feb 12 |
| YLRL YL-OM Contest | 1400Z, Feb 11 to 0200Z, Feb 13 |
| OMISS QSO Party | 1500Z, Feb 11 to 1500Z, Feb 12 |
| FISTS Saturday Sprint | 1600Z-1800Z, Feb 11 |
| RSGB 1.8 MHz Contest | 1900Z-2300Z, Feb 11 |
| Balkan HF Contest | 1300Z-1700Z, Feb 12 |
| K1USN Slow Speed Test | 0000Z-0100Z, Feb 13 |
| 4 States QRP Group Second Sunday Sprint | 0100Z-0300Z, Feb 13 |
| CQC Winter QSO Party | 0100Z-0259Z, Feb 13 |
| ICWC Medium Speed Test | 1300Z-1400Z, Feb 13 |

February 2023 Contest Calendar - Continued on page 54

February 2023 Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

February 2023 Contest Calendar - Continued from page 53

| | |
|-------------------------------------|--|
| ARRL School Club Roundup | 1300Z, Feb 13 to 2359Z, Feb 17 |
| OK1WC Memorial | 1630Z-1729Z, Feb 13 |
| ICWC Medium Speed Test | 1900Z-2000Z, Feb 13 |
| PODXS 070 Club Valentine Sprint | 0000Z-2359Z, Feb 14 |
| Worldwide Sideband Activity Contest | 0100Z-0159Z, Feb 14 |
| ICWC Medium Speed Test | 0300Z-0400Z, Feb 14 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 15 |
| Phone Weekly Test | 0230Z-0300Z, Feb 15 |
| A1Club AWT | 1200Z-1300Z, Feb 15 |
| CWops Test | 1300Z-1400Z, Feb 15 |
| Mini-Test 40 | 1700Z-1759Z, Feb 15 |
| VHF-UHF FT8 Activity Contest | 1700Z-2100Z, Feb 15 |
| Mini-Test 80 | 1800Z-1859Z, Feb 15 |
| AGCW Semi-Automatic Key Evening | 1900Z-2030Z, Feb 15 |
| CWops Test | 1900Z-2000Z, Feb 15 |
| RSGB 80m Club Championship, Data | 2000Z-2130Z, Feb 15 |
| Walk for the Bacon QRP Contest | 0000Z-0100Z, Feb 16 and 0200Z-0300Z, Feb 17 |
| CWops Test | 0300Z-0400Z, Feb 16 |
| CWops Test | 0700Z-0800Z, Feb 16 |
| NTC QSO Party | 1900Z-2000Z, Feb 16 |
| NCCC RTTY Sprint | 0145Z-0215Z, Feb 17 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 17 |
| NCCC Sprint | 0230Z-0300Z, Feb 17 |
| K1USN Slow Speed Test | 2000Z-2100Z, Feb 17 |
| ARRL Inter. DX Contest, CW | 0000Z, Feb 18 to 2400Z, Feb 19 |
| Russian PSK WW Contest | 1200Z, Feb 18 to 1159Z, Feb 19 |
| Feld Hell Sprint | 1900Z-2059Z, Feb 18 |
| FISTS Sunday Sprint | 2100Z-2300Z, Feb 19 |
| Run for the Bacon QRP Contest | 2300Z, Feb 19 to 0100Z, Feb 20 |
| K1USN Slow Speed Test | 0000Z-0100Z, Feb 20 |
| ICWC Medium Speed Test | 1300Z-1400Z, Feb 20 |
| OK1WC Memorial | 1630Z-1729Z, Feb 20 |
| ICWC Medium Speed Test | 1900Z-2000Z, Feb 20 |
| Worldwide Sideband Activity Contest | 0100Z-0159Z, Feb 21 |
| ICWC Medium Speed Test | 0300Z-0400Z, Feb 21 |
| SKCC Sprint | 0000Z-0200Z, Feb 22 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 22 |
| Phone Weekly Test | 0230Z-0300Z, Feb 22 |
| A1Club AWT | 1200Z-1300Z, Feb 22 |
| CWops Test | 1300Z-1400Z, Feb 22 |
| Mini-Test 40 | 1700Z-1759Z, Feb 22 |
| Mini-Test 80 | 1800Z-1859Z, Feb 22 |
| CWops Test | 1900Z-2000Z, Feb 22 |
| UKEICC 80m Contest | 2000Z-2100Z, Feb 22 |
| CWops Test | 0300Z-0400Z, Feb 23 |
| CWops Test | 0700Z-0800Z, Feb 23 |
| RSGB 80m Club Championship, CW | 2000Z-2130Z, Feb 23 |
| NCCC RTTY Sprint | 0145Z-0215Z, Feb 24 |
| QRP Fox Hunt | 0200Z-0330Z, Feb 24 |
| NCCC Sprint | 0230Z-0300Z, Feb 24 |
| K1USN Slow Speed Test | 2000Z-2100Z, Feb 24 |
| CQ 160-Meter Contest, SSB | 2200Z, Feb 24 to 2200Z, Feb 26 |
| REF Contest, SSB | 0600Z, Feb 25 to 1800Z, Feb 26 |
| FTn DX Contest | 1200Z, Feb 25 to 1200Z, Feb 26 |
| UBA DX Contest, CW | 1300Z, Feb 25 to 1300Z, Feb 26 |
| South Carolina QSO Party | 1500Z, Feb 25 to 0159Z, Feb 26 |
| North American QSO Party, RTTY | 1800Z, Feb 25 to 0559Z, Feb 26 |
| NA Collegiate Championship, RTTY | 1800Z, Feb 25 to 0559Z, Feb 26 |
| High Speed Club CW Contest | 1400Z-1700Z, Feb 26 |
| North Carolina QSO Party | 1500Z, Feb 26 to 0100Z, Feb 27 |
| K1USN Slow Speed Test | 0000Z-0100Z, Feb 27 |
| ICWC Medium Speed Test | 1300Z-1400Z, Feb 27 |
| OK1WC Memorial | 1630Z-1729Z, Feb 27 |
| ICWC Medium Speed Test | 1900Z-2000Z, Feb 27 |
| RSGB FT4 Contest | 2000Z-2130Z, Feb 27 |
| Worldwide Sideband Activity Contest | 0100Z-0159Z, Feb 28 |
| ICWC Medium Speed Test | 0300Z-0400Z, Feb 28 |
| QCX Challenge | 1300Z-1400Z, Feb 28 |
| QCX Challenge | 1900Z-2000Z, Feb 28 |

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| S | T | O | L | E | | S | C | O | T | | T | T | W | O | |
| L | A | N | A | I | | E | L | S | E | | A | R | O | W | |
| I | N | C | O | G | | R | O | L | E | | V | A | L | E | |
| T | H | E | S | H | O | E | S | O | N | | E | N | D | S | |
| | | | | T | U | N | E | | S | D | R | S | | | |
| | S | A | B | O | T | E | U | R | | I | N | C | A | S | |
| T | E | R | E | S | A | | P | A | L | M | | E | R | P | |
| A | G | A | L | E | G | A | | J | A | M | A | I | C | A | |
| P | U | B | | V | E | T | S | | P | E | L | V | E | S | |
| S | E | I | N | E | | T | W | I | D | D | L | E | D | | |
| | | A | O | N | E | | I | D | O | L | | | | | |
| N | P | N | S | | | F | U | L | L | G | A | L | L | O | N |
| V | L | S | I | | | I | S | L | E | | M | I | O | N | E |
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| S | A | A | R | | | E | R | R | S | | S | Y | N | O | D |

Crossword Puzzle Answers
From Page 41

WORD TO THE WISE

Off-by-One

Usually used in reference to a call sign. A call sign that has a one-character difference from another. For example, N9ACG is an Off-by-one for the call sign N9ADG.

Crosstalk Submissions

This is your Club Newsletter. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so!

We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments, and editorials should be addressed to :
Jeff Garth, WB2ZBN at djgrath1 <at> gmail <dot> com

Submission deadline for the March 2023 issue : Monday, February 20, 2023

Club Website www.w2mmd.org

Club E-Mail Reflector: GCARC <at> Mailman <dot> QTH <dot> Net

2023 Club Committees

| Standing Committees | Committee Chairs |
|---|--|
| Budget Constitution & By-Laws Education Field Day Hamfest Health, Welfare, & Silent Keys Hospitality Membership Membership Badges Nominations Publicity <i>Repeaters</i> W2MMD Clubhouse Site | Al Arrison, KB2AYU Ron Block, NR2B Chris Prioli, AD2CS Vinnie Sallustio, N4NYY Sheldon Parker, K2MEN and Bill Price, NJ2S Bill Price, NJ2S Jeff Garth, WB2ZBN Chris Prioli, AD2CS Chuck Colabrese, WA2TML Jon Pearce, WB2MNF Tony Starr, K3TS <i>Open Chair</i> Al Arrison, KB2AYU |

| Activity Committees | Committee Chairs |
|---|--|
| <i>Awards & Certificates</i> Club Publications & Historian Contests <i>DX</i> <i>GCARC Family Picnic</i> GCARC Foxhunts GC-ARES Emergency Coordinator <i>Holiday Dinner Party</i> License Testing/VEC Liaison Membership Roster Database Programs : General Membership Meetings Radio Nets Technical & Tech Saturday Programs W2MMD License Trustee W2MMD Special Event Station | <i>Open Chair</i> Jeff Garth, WB2ZBN Tony Starr, K3TS <i>Open Chair</i> <i>Open Chair</i> Jim Wright, N2GXJ Bob Keogh, KD2NEC <i>Open Chair</i> Gary Reed, N2QEE Jeff Garth, WB2ZBN Ron Block, NR2B Jim Clark, KA2OSV Jon Pearce, WB2MNF Darrell Neron, AB2E Mark Gottlieb, KK2L |

GCARC <at> Mailman <dot> QTH <dot> Net e-mail reflector guidelines

1. **No attachments** (e.g. pictures, files) are allowed on the reflector.
2. If you have Club-related pictures that you would like to share, you can send them to the webmaster, he will put them on the website and will send out a general e-mail to all the members.
3. Otherwise, the pictures will have to be sent to the members' addresses.
4. URLs/Hyperlinks are acceptable on the reflector.
5. Do not send any messages with e-mail addresses in the **BCC (Blind Carbon Copy)** field. The message will be rejected. Use only the **To:** or **CC:** fields.
6. Members are subscribed to the reflector using the member's e-mail address from the roster database. You must use that address when sending an e-mail via the reflector.
7. If you use another address on the reflector, the message will get rejected or "*bounced*", because the reflector does not recognize that address. Whenever a message sent to reflector is rejected or "*bounced*" for various reasons, the administrator has to log-in to the Mailman.QTH website and approve the message.

The W2MMD Repeaters

2 Meter Repeater

Output : 147.180 MHz

Input : 147.780 MHz

Offset : +600 kHz - PL : 131.8 Hz

(Conventional FM plus C4FM Capability)

EchoLink : W2MMD-R

70 cm Repeater

Output : 442.100 MHz

Input : 447.100 MHz

Offset : +5 MHz - PL : 131.8 Hz

(Conventional FM plus C4FM Capability)

The above repeaters are both
located in Pitman, NJ
GPS : 39.728481°, -75.131088°

1.25 Meter Repeater

Output : 224.660 MHz

Input : 223.060 MHz

Offset : -1.6 MHz - PL : 131.8 Hz

Location : Sewell, NJ

GPS : 39.746738°, -75.077094°

SKYWARN™ Net

Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net

Sunday @ 2000 : 147.180 MHz Repeater

The GCARC TechNet

First / Third Mondays Of Every Month
@ 2000 Hours
ZOOM Meeting Net

Tuesday Noon Day 2M Rag Chew Net

Every Tuesday @ 1200 Hours

Tuesday Night 10M Rag Chew Net

Every Tuesday @ 2000 Hours
Tune in on 28.465 MHz or 28.475 MHz

Thursday Night 2M Rag Chew Net

Every Thursday @ 2000 Hours

Meeting Calendar

General Membership Meeting
Wednesday, February 1, 2023
1930 Hours

Live & In-Person
Pfeiffer Community Center
Simulcast Live on ZOOM

Board of Directors Meeting
Wednesday, February 15, 2023
1900 Hours
W2MMD Clubhouse

*“Ask not what your Club can do for you,
Ask what you can do for your Club”*
- KA2OSV

*“The big thing about being in a club and
being a “Ham” is to help each other
when there is a need ”*
- W2SEF

***** Badges *****

Need a new or replacement badge
Contact “The BadgeMan”

Chuck Colabrese, WA2TML
colabrese <at> comcast <dot> net