



# *We Will Rebuild Back Better!* CrossTalk

Issue 63:08    63 Years Of Service To Our Community    August 2022

## 2022 Club Officers

<b>President :</b> Anthony Starr, K3TS	<b>Trustees - 4 year term</b>
<b>Vice President :</b> Jonathan Pearce, WB2MNF	James Wright, N2GXJ (2019-2022)
<b>Treasurer :</b> Alan Arrison, KB2AYU	Mark Gottlieb, KK2L (2020-2023)
<b>Recording Secretary :</b> Karl Frank, W2KBF	Robert Fields, KC6AOH (2021-2024)
<b>Corresponding Secretary :</b> Ronald Block, NR2B	Charles Lanard, KD2EIB (2022-2025)

### Board of Directors - 3 year term

Robert Durham, W2RAD (2020-2022)	William Price, NJ2S (2021-2023)
Herb Dyer, KT2Y (2020-2022)	James Clark Sr, KA2OSV (2022-2024)
Charles Colabrese, WA2TML (2021-2023)	Jeffrey Garth, WB2ZBN (2022-2024)

### *This Month's Calendar*

**General Membership Meeting**  
Wednesday, August 3, 2022 @ 1930 Hours  
**In-Person & ZOOM - Pfeiffer Community Center**

**Tech Saturday Forum**  
Saturday, August 6, 2022 @ 0900 Hours  
**W2MMD Clubhouse**

**The "DigiNet"**  
(Summer Hiatus)  
Returning in October

**License Testing Session**  
Thursday, August 11, 2022 @ 1900 Hours  
**W2MMD Clubhouse**

**Board of Directors Meeting**  
Wednesday, August 17, 2022 @ 1900 Hours  
**W2MMD Clubhouse**

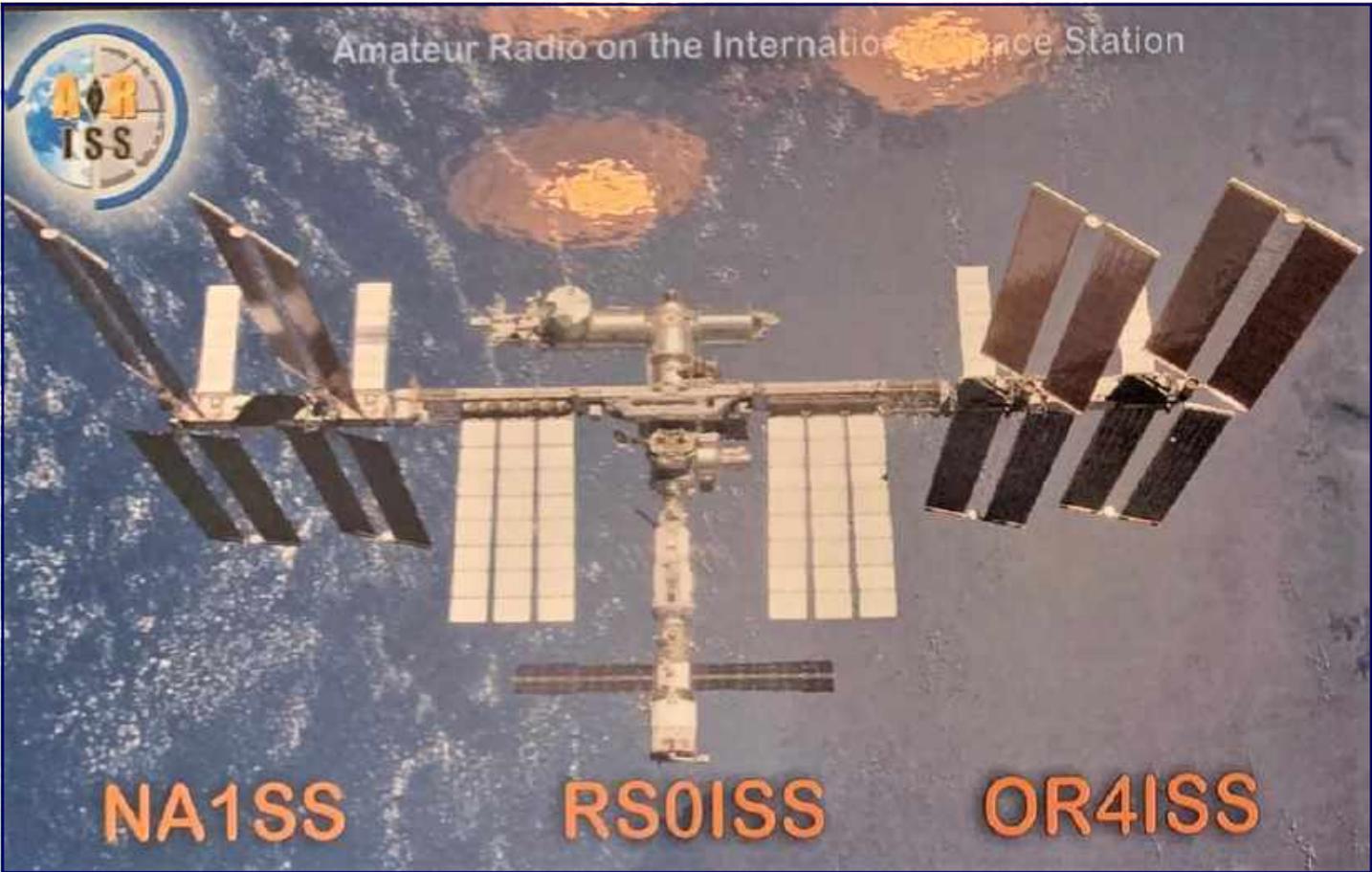
**Tuesday Noon Day 2 Meter Rag Chew Net**  
Every Tuesday @ 1200 Hours

**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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The International Space Station (ISS) is sponsored by **Canada, Japan, Russia, the USA and many nations in Europe**. ISS crews hail from these and other nations. Major hardware elements are:

- Zarya , Zvezda, Pirs, research modules Poisk and MRM-1 Rassvet built by Russia
- Science lab Destiny, Unity, Quest, Harmony and Tranquility modules provided by the US
- Canadian Mobile Servicing System, a 55-foot mobile robotic arm used for assembly and maintenance
- Columbus module, a science laboratory provided by ESA
- Kibo module, a science laboratory provided by Japan.

• **CREW-LINDGREN-KOSMOS-LADY**

ISS crews and visitors often use their Amateur Radio station, first set up in Zarya and then Zvezda, to talk with school students to aid in their education, plus chat with fellow radio amateurs around the world. The ARISS Team continually works to extend ISS Amateur Radio station capability with new operation modes and, more recently, equipment placement in the Columbus module.

To **W2VMD**

From	Day	Month	Year	UTC	MHz
<input checked="" type="checkbox"/> NA1SS	26	6	2022	1455	2m/ 70cm
<input type="checkbox"/> RS0ISS					
<input type="checkbox"/> OR4ISS					

Mode :  Voice     Packet     SSTV     APRS     Repeater     SWL

**W2VMD - THANKS FOR PARTICIPATING.**

**-23-**



## *President's Message*

### *Tony Starr, K3TS*



Greetings to all up and down the bands! I hope you are all having a good summer so far, and enjoying some time outdoors, not just in the shack. Those who know me well know that for almost as long as I have enjoyed ham radio, I have also enjoyed camping and riding motorcycles. Every summer, my wife and I enjoy several camping trips where we ride during the day, and sit around the campfire at night. The season finale occurs every year in September, in Ocean City MD, where we spend eight days and nights riding and camping. We look forward to it more than any other trip, but when it is over, we feel a kind of let down, that lasts a good month or so, because we know that no matter how much fun we had, we have to wait another year until the next one.

This feeling is almost identical to the one I get after Field Day every year. I look forward to Field Day every year, and hope that nothing too serious goes wrong and that we have a great time, and then just like that, it is over for another year. And that is where I am at right now. If for some reason you missed Field Day this year, allow me to fill you in on what you missed. Well, lets start with the weather. There was not so much as a sprinkle of rain, nor a gust of wind stronger than a nice breeze. The sunshine was abundant, and the grass on the field was carefully mowed to nice low height that discouraged the bugs from biting at our ankles. There was no wine festival, loud music or annoying field lights all night. Saturday night was clear, moonless, and offered a wonderful view of the stars, some satellites, and even a few meteors. It was just a lovely night to be out.

Did I mention that we made a few QSO's? Well we did. The bands were in decent shape, with relatively low noise levels, and signals were clear and easy to copy. There was not a lot of QRM, but that may or may not have been a good thing because some bands were a bit too quiet. On the downside, there was still an overabundance of 1D and 1E stations, and a dearth of big multi-transmitter Class A stations like ours, so that pretty much guaranteed that activity was limited to one or two bands at a time. I am hoping that the ARRL addresses this fundamental change in the flavor of the event and looks at what they can do to correct it. In spite of this, we did make a bunch of contacts and had a good time doing it, and we are already planning on how to improve the operations next year.

There are some parts of Field Day that I have come to love more than operating, and I am an operator! I love meeting up at the chow hall at dinner time, and I love the fireside chats with **Vinnie N4NYY**, **Herb KT2Y**, and **Jim N2GXJ**. And of course, building the station and putting up the antennas, which I will never get tired of. I might someday get too tired to do it, but I will never get tired of doing it! Man, what a great time we had! And if you missed it, I am sorry you did, but there is always next year! Start reminding all members of your family now, that you will not be available on the fourth weekend in June. It works, trust me.

Next up on our big events list is the **Hamfest**, which will be held on **Sunday, September 11, 2022**. All of our planning has kicked into high gear, and we are expecting another great event, thanks to the skills of our experienced staff. We still need volunteers to help out, so be sure to sign up with **Sheldon Parker, K2MEN** at the **August 3, 2022 General Membership Meeting**. All members who are available and physically able to help out are encouraged to sign up. This is a fast-paced event and we can never have too much help.

*President's Message - Continued on page 4*

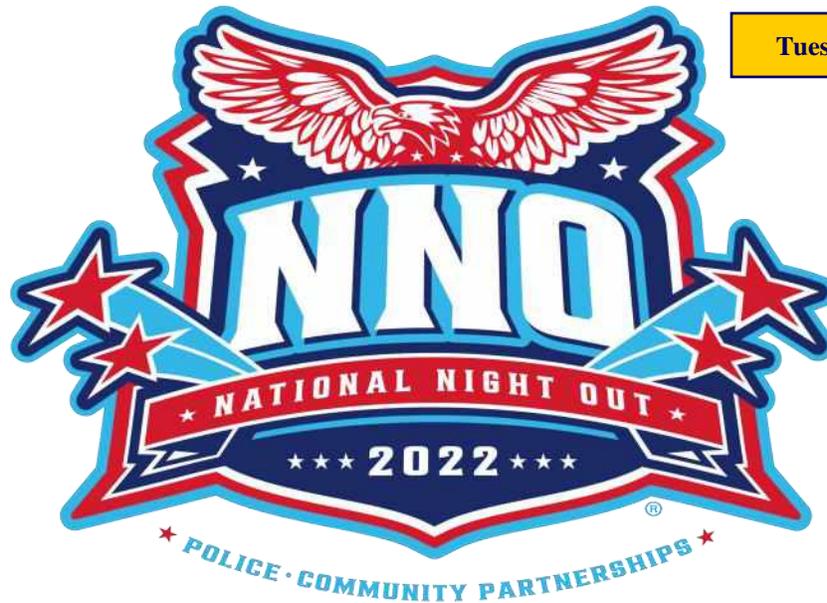
*President's Message - Continued from page 3*

The new HF tower and antenna are nearing the final stages of installation and fabrication, and should be ready to go up soon. It is our goal to have the tower standing proudly at full extension, with the new JK antenna installed, by the date of the hamfest. Many thanks to **Al Arrison, KB2AYU**, and his able antenna crew for all of the hard work and engineering.

And last, but certainly not least, I would like to welcome back **Jeff Garth, WB2ZBN**, to his post as editor of this fine publication, which is the envy of clubs near and far. Along with that, a big thanks to **Chris Prioli, AD2CS**, who expertly kept the presses rolling during Jeff's surgery and convalescence. The contributions of these two gentlemen are immense, and of great value to the Club.

That's all I have for now. Except for a warm welcome to new member **Stanley Slachetka, WA2JRZ**, of **Woodbury Heights, NJ**. Glad to have you on board! Hope to see everyone out for the August 3<sup>rd</sup> meeting in Williamstown.

**Until then, 73 for now. de K3TS**



Tuesday August 2, 2022



# July 16, 2022 Saturday Clubhouse Work Session Highlights



Chris AD2CS and Earl KC2NCH working to replace the top rails of the front steps



John K2ZA painting the steps



Mike N2WOQ painting the shed

More pictures on the website on the "W2MMD Clubhouse Operations" page



Jon WB2MNF bringing the lunch



## General Membership Meeting

Wednesday, August 3, 2022  
@ 1930 Hours



**Pfeiffer Community Center - Simulcast Live Via ZOOM**

**Field Day Review : Review of our Field Day activities, pictures, and the BIG reveal of the preliminary scores**

**Hamfest Preview : Sheldon Parker, K2MEN will be asking for volunteers for our 44<sup>th</sup> Annual Hamfest on September 11, 2022**

**If would like to volunteer, please go to our website on the 2022 Hamfest Sign-Up Sheet**

**<https://gloucestercountync.org/2022-hamfest-sign-up-sheet.html>**

### Welcome New Club Member :

Stanley Slachetka, WA2JRZ, who has an Advanced Class license and lives in Woodbury Heights, NJ.

We are glad to have you as a member of the Club and hope to see you regularly at Club meetings, events, and activities. We hope to hear you on the Tuesday Night 10M Rag Chew Net. Also on the first Monday of the month DigiNet, the weekly Tuesday Noon Day and Thursday Night 2M Rag Chew Nets on our 2M Repeater or EchoLink : W2MMD-R.

### 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

w2mmd.org



[www.facebook.com/W2MMD](http://www.facebook.com/W2MMD)



[twitter.com/w2mmd\\_garc](https://twitter.com/w2mmd_garc)

Facebook





**Tech Saturday Forum**  
**August 6, 2022 @ 0900 Hours**  
**W2MMD Clubhouse**

***“How To Use A NanoVNA”***  
**Presented By Chris Prioli, AD2CS**

**Q&A Open Session and Socializing**

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.

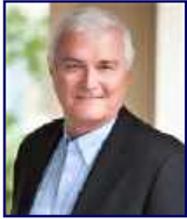
Usually, the Club’s HF station is reserved for local use on Tech Saturday. This month is no exception. However, the Clubhouse work efforts will come before any HF Elmering this month. We will be happy to work with the HF station after the chores are done!

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

## **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](mailto: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**



## **The Gloucester County Amateur Radio Foundation - Q&A**

**By Jonathan Pearce, WB2MNF**

### **What is the Foundation?**

The Gloucester County Amateur Radio Foundation was formed in late 2021 primarily to raise funds for the GCARC's Clubhouse. It's organized as a 501(c)(3) public charity which gives it many advantages over the current 501(c)(4) structure of the Club.

### **How does the Foundation differ from the Club?**

The primary difference between the two organizations is the tax implications of contributions. In many cases contributions to the Foundation are tax-deductible or provide a method for avoiding taxation of contributions from IRAs. The Foundation is also preferred by many grant-making organizations because of its tax status, and it is also eligible for a NJ sales tax exemption. However, the Foundation's activities are restricted to research, education, and public service while the Club has no such restrictions. The Foundation also has additional tax and financial reporting requirements that are not required for the Club.

### **Who runs the Foundation?**

The Foundation is run by a 7 member board, currently consisting of **WB2MNF, N3PUU, K2QA, K2MRP, KB2AYU, K3TS, and WB2ZBN**. Five of the board members are elected by the board and currently are the original organizers of the Foundation. The sixth member is always the current president of the GCARC and the seventh member is appointed by the board of the GCARC. All Foundation board members must be members of GCARC.

### **What does the Foundation do with money that it raises?**

The Foundation's "exempt purpose", which allows its 501(c)(3) status, is to promote research, education, and public service communications; therefore any funds raised by the Foundation must go to support those activities. Practically this means that Foundation funds will go to infrastructure, equipment, and activities at the Clubhouse related to those purposes.

### **How can I make contributions to the Foundation?**

Individuals can contribute cash to the foundation and deduct that contribution from their federal income tax to the extent that their personal tax situation allows it. They can also contribute USEFUL radio and other electronics equipment and take a tax deduction on the fair market value of the equipment donation.

### **I buy a lot of stuff from Amazon? Can that help raise Foundation funds?**

Yes - simply add "Amazon Smile" to your Amazon account and designate the Gloucester County Amateur Radio Foundation as your designated charity. Amazon will donate 1/2 of 1 percent of your purchases to the Foundation with no additional cost to you. Every GCARC member should do this if you don't have another more important charity - it costs you nothing and will help raise funds to support Club activities.

*What is the Foundation? - Continued on page 9*

*What is the Foundation? - Continued from page 8*

### **I'm an "older" ham and am making "Required Minimum Distributions" from my IRA. Does the Foundation offer me any special opportunities to contribute?**

Individuals taking IRA RMDs have a special opportunity to contribute to the Foundation by making Qualified Charitable Deductions from their IRA. A QCD is set up by the broker and moves funds directly from the individual's IRA to the Foundation. In this way it avoids the income tax that would be paid if the individual took an RMD and then contributed the remaining funds to the Foundation. In addition the QCD counts as part of the RMD requirement.

For example, suppose Bob is in a 20% tax bracket, has a \$100,000 IRA and is required to take a 4% RMD (\$4000) this year. Bob is also willing to contribute \$1000 to the Foundation to continue to support local amateur radio. If Bob takes all of the \$4000 as an RMD he'll wind up with \$3200 after paying \$800 in taxes. After contributing the \$1000 to the Foundation he'll end up with \$2200. But Bob could make a \$1000 QCD contribution directly from his IRA to the Foundation, after which his remaining RMD requirement is now \$3000 on which he pays 20% in taxes (\$600) and ends up with \$2400 with the Foundation still getting \$1000. The \$200 difference is the tax savings that occurred because of using the QCD. For older hams who want to continue to support what may have been a lifelong hobby this is a great way to do it.

### **Can the Foundation apply for grants?**

Yes - many organizations prefer awarding grants to 501(c)(3) organizations because those organizations are required to use their funds for their exempt purposes and are prohibited from using funds for individual benefit. In particular the Amateur Radio Digital Communications organization has awarded the Foundation a grant of \$11,148 to purchase VHF radio equipment. Other funding opportunities may also be available and will be pursued by the Foundation.

### **QSL Card From NA1SS - See Page 2**

**By Jon Pearce, WB2MNF**

Club received the QSL from the Field Day QSO with the International Space Station. They graciously sent us two copies, correctly expecting that we'll want to frame it with both sides visible (I'm heading to Hobby Lobby for a frame in a few minutes!). It will be on the Clubhouse wall by the weekend.

Interestingly the operator was **Dr. Kjell Lindgren MD, KO5MOS**, who holds a General Class license (many astronauts only have Technician licenses) and has amazing credentials. He's an Air Force Academy graduate and an emergency medicine doctor with at least two additional Master's degrees. This appears to be his third space mission. In addition to Field Day operations it also appears that he enjoys firing up the ISS ham station and chatting with hams in whatever spare time astronauts get. You can read his bio here if you're interested. <https://www.nasa.gov/astronauts/biographies/kjell-n-lindgren/biography>

**Tuesday Noon Day 2M Rag Chew Net @ 1200 Hours**  
**Net Control Hosts : Steve W2SEF, Greg W5DO, & Chris AD2CS**  
**147.180 MHz Repeater & EchoLink - W2MMD-R**  
If you would like to be a control operator for this net, please contact Steve, W2SEF



## GCARC Monthly VE Exam Testing Summary

**Gary Reed, N2QEE reports :**

The monthly VE session was held on July 14, 2022 at the W2MMD Clubhouse. There were two candidates in attendance. One candidates' upgrade to Amateur Extra was successful with a perfect score :

- John Jones Sr, KD2RKA from Pennsauken achieved Amateur Extra Class.

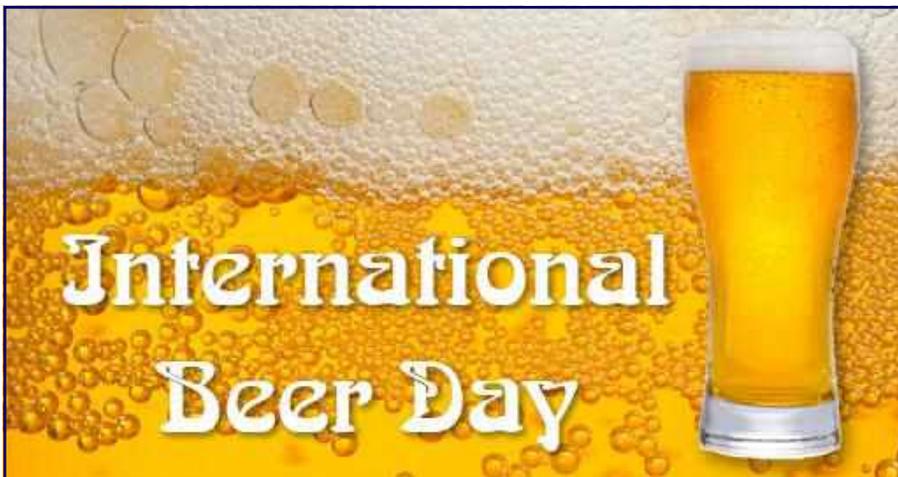
The participating VE's were :

- Chris AD2CS
- Rich W2RHS
- Earl KC2NCH
- Court KD2SPJ
- Mike KG4JYA
- Mike N2WOQ
- Steve W2SEF
- Mike N2MHO
- Gary N2QEE

Thank to the VE's which helped with the testing.

The FCC Legacy CORES system was retired as of July 15, 2022 (<https://www.arrl.org/news/fcc-legacy-cores-system-to-be-retired>). When you access the new CORES site you sign using your user name and password. It recommended that you sign in to your account to make sure your information is correct. The ARRL wants to remind all new examinees' that they must pay the license fee within 10 days. It is not necessary to wait for the FCC email but can pay through the CORES Payer FRN System. As soon as an application number is associated with your FRN you can pay the fee. Also the CORES Payer system doesn't work with smart phones and tablets but must be done though a computer. This information is also on the Club's website on the Get Your Ham Ticket page.

The next regularly-scheduled VE session will be held on August 11, 2022 at 7 PM. at the W2MMD Clubhouse.



Saturday, August 6, 2022



Sunday, August 7, 2022

## DA's and DIT's

>>Thanks to our own **Ron Block, NR2B**, our Club's 2022 Field Day activities made the news! Go to : <https://www.nj.com/gloucester-county/2022/06/ham-radio-emergency-communications-drill-being-held-in-south-jersey.html> or <https://bit.ly/3uLPmSC> for the rest of the story!

You cannot beat free publicity. Plus the 100 point bonus! With the July 2022 QST article and now an article in one of the state's leading on-line newspapers, Ron has gotten our Club the most publicity that we have had in years.

>>Get Well :

- Greg Ciraula, W5DO, recovering from some recent medical issues.
- Charlie Wahl, KC2STO, recovering from some recent trips to the Inspira Hotel.
- Rolf Wurmbach, KD2VQA, recovering from a bout with COVID.
- Steve Farney, W2SEF's XYL Marie, recovering at home after a bad fall.
- Bob Keogh, KD2NEC, recovering from some recent surgery

>>In the July 2022 QST issue on page 50, honorary Club member **Mark Wilson, K1RO** writes a review of the Hayseed Hamfest Re-Cap Kit. In the first paragraph, he mentions that in the 1970s he used to operate with his friend **Darrell Neron, AB2E**. He said that Darrell had a Heathkit SB-102 that he enjoyed. Mark goes on about re-capping a SB-102 that he recently bought. Mark at one time was the QST editor and then a contributing editor. He was a Club member in the 1970s and was awarded Honorary membership in the 1990s.

>>Congratulations to **Frank Romeo, N3PUU**, **Mike Pecorini, K2MRP**, and **John O'Connell, K2QA**, for scoring 7,904 points in the 2022 January VHF Contest. They finished in 1<sup>st</sup> place in the SNJ Section and 9<sup>th</sup> place in W/VE. Also mentioned in the contest under Affiliated Club Competition, our Club scored 10, 650 points. Kudos to the Club members who helped score those points.

>>**Attention Amazon members** : You can make a donation to the **Gloucester County Amateur Radio Foundation** by going to **SMILE.AMAZON.COM**. Log-in with your regular Amazon user name and password. Go to **Account & Lists**, under **Your Lists**, select **AmazonSmile Charity Lists**. Do a search for **Gloucester County Amateur Radio Foundation**.

>>Congratulations for new vanity call signs :

- **Jeff Thomson, NJ2JT (ex. N2SQA)**
- **Anthony Cerami, N2OAC (ex. KD2RPI)**

>>On page 65 of the July 2022 QST, there is a report about the Simulated Emergency Test (SET) 2021 Results. In a chart on page 66 under 2021 SET Top Ten, ARES Activity, our Southern New Jersey Section placed #1 with 2,844 points. Kudos to all the ARES members in SNJ who participated in this event.

>>**Chris Prioli, AD2CS** will soon be sending out a survey to compile a list of Club member skill sets. Skill sets such as electrician, plumber, carpentry, painter, welder, masonry, lawyer, doctor, etc.



## *The Education Connection* *By Chris Prioli, AD2CS*

### **August 2022**

During the summer months, there is not a whole lot going on as far as GCARC Education is concerned. The DigiNet is on summer break, as are the license test preparation classes. However, there is a little bit to talk about.

One of the things that I participate in actively is the GCARC VE team. As a result, I do what I can to help build the team, so as to ensure that **Gary Reed, N2QEE**, our VE Liaison, will always have adequate staff for the scheduled and special VE sessions that are held. One of the ways that I do this is by encouraging those members who have successfully upgraded to Amateur Extra to get involved in the VE program. This usually is easily done by visiting the ARRL VE page, downloading the manual, reading it, and then going back and taking the open book test. Finally, by submitting the completed test and a copy of your license, you are on your way to an ARRL VE credential. I hope that once we have adequate VE team members, Gary can schedule the VE's for the various sessions and know that his staffing needs will be met. The ARRL web page on which to get started is <http://www.arrl.org/become-an-arrl-ve> - the process is really quite simple.

In recent months, we have added at least a half-dozen new VE's, including **Court Smith, KD2SPI**, **Jerry Barnish, K2EAB**, **Steve Farney, W2SEF**, **Mike Thompson, KG4JYA**, **Earl Moore, KC2NCH**, **Rich Subers, W2RHS**, and **Mike Resnick, N2WOQ**. These folks are all working hard to help keep the VE program going strong, and I thank them for their efforts. I extend my thanks also to all of the long-time VE's who are still actively and faithfully participating, lest they be forgotten. Testing is an important part of the educational process, which is why I take it so seriously.

On another topic, the new Technician question pool is, of course, in active use for all Element 2 exam candidates. In accordance, I have been working on updating my Element 2 training materials so that I am ready for the upcoming fall training sessions. The spiral-bound Technician-level manual is now available from ARRL, and I just ordered my copy.

Unfortunately, the student cost for our test preparation classes will have to be increased this fall, to cover the increased cost of the books as well as to cover the costs of printing and collating the bonus materials and handouts that all of our students receive. I am looking forward to good enrollment figures despite the price increase. Any person - member or non-member - who is interested in obtaining or upgrading an Amateur Radio license would do well to attend our test preparation classes. It is still too early to state specifically what the new price will be, but I should have that information soon.

**Finally, I am actively seeking suggestions for future DigiNet topics. If anyone has a favorite digital area that they would like to see explored in some depth as a DigiNet topic, please submit that suggestion to me via email, using my email address on the Club roster.**

**GCARC Amateur Radio Test Prep Class Schedule  
2022 Session III  
Class Times : 1800 - 2100 Hours  
Weeks 1 through 8 + VE Testing Week**

<b>Class Week</b>	<b>Class Date</b>	<b>License Class Study</b>
Week One	Monday, September 12, 2022	Technician Class
Week One	Tuesday, September 13, 2022	General Class
Week One	Friday, September 16, 2022	Amateur Extra Class
Week Two	Monday, September 19, 2022	Technician Class
Week Two	Tuesday, September 20, 2022	General Class
Week Two	Friday, September 23, 2022	Amateur Extra Class
Week Three	Monday, September 26, 2022	Technician Class
Week Three	Tuesday, September 27, 2022	General Class
Week Three	Friday, September 30, 2022	Amateur Extra Class
Week Four	Monday, October 3, 2022	Technician Class
Week Four	Tuesday, October 4, 2022	General Class
Week Four	Friday, October 7, 2022	Amateur Extra Class
Week Five	Monday, October 10, 2022	Technician Class
Week Five	Tuesday, October 11, 2022	General Class
Week Five	Friday, October 14, 2022	Amateur Extra Class
Week Six	Monday, October 17, 2022	Technician Class
Week Six	Tuesday, October 18, 2022	General Class
Week Six	Friday, October 21, 2022	Amateur Extra Class
Week Seven	Monday, October 24, 2022	Technician Class
Week Seven	Tuesday, October 25, 2022	General Class
Week Seven	Friday, October 28, 2022	Amateur Extra Class
Week Eight	Monday, October 31, 2022	Technician Class
Week Eight	Tuesday, November 1, 2022	General Class
Week Eight	Friday, November 4, 2022	Amateur Extra Class
VE Testing Session	Monday, November 7, 2022	Technician Class
VE Testing Session	Tuesday, November 8, 2022	General Class
VE Testing Session	Friday, November 11, 2022	Amateur Extra Class

## Regional (Atlantic & Hudson Divisions) Hamfests & Events

**August 6, 2022** : Reading Radio Club Hamfest, Heritage Park, 992 Clematis Street, Sinking Springs, MD. [www.qsl.net/w3bn](http://www.qsl.net/w3bn)

**August 6, 2022** : Tompkins County Amateur Radio Association, Ithaca Hamfest, Trumansburg Fairgrounds, 2150 Trumansburg Road, Trumansburg, NY. [www.tcara-ny.org](http://www.tcara-ny.org)

**August 13, 2022** : Uniontown Amateur Radio Club, 72<sup>nd</sup> Annual Gabfest, Uniontown Amateur Radio Club, 433 Old Pittsburgh Road, Uniontown, PA. [www.w3pie.org](http://www.w3pie.org)

**August 13, 2022** : Northern New York Amateur Radio Association, Junk In The Truck Hamfest, Speculator Pavilion and Ball Field, NY Route 30, Speculator, NY. [www.nnyara.net](http://www.nnyara.net)

**August 14, 2022** : Mid-Atlantic Amateur Radio Club, Valley Forge Hamfest, Kimberton Fire Company Fairgrounds, 742 Pike Springs Road, Kimberton, PA. [www.marc-radio.org](http://www.marc-radio.org)

**August 20, 2022** : Ramapo Mountain Amateur Radio Club, RMARC Annual Hamfest, Christ The King Lutheran Church, 50 Erskine Road, Ringwood, NJ. [www.qsl.net/rmarc](http://www.qsl.net/rmarc)

**August 20, 2022** : Keuka Lake Amateur Radio Association Hamfest, Howard Community Center, 7481 Hopkins Road, Avoca, NY. [www.klara.us](http://www.klara.us)

**August 27, 2022** : RocCity Net Hamfest, Log Cabin Restaurant, 2445 West Walworth Road, Macedon, NY. [www.facebook.com/groups/roccitynet](http://www.facebook.com/groups/roccitynet)

**August 27, 2022** : East Greenbush Amateur Radio Association Hamfest, East Greenbush Town Park, Town Park Road, East Greenbush, NY. [www.egara.club](http://www.egara.club)

**August 28, 2022** : Skyview Radio Society, Skyview Swap N Shop, Skyview Radio Society Clubhouse, 2335 Turkey Ridge Road, New Kensington, PA. [www.skyviewradio.net](http://www.skyviewradio.net)

“I believe Jim, N2GXJ, mentioned I was in the August 2022 (page 28) issue of QST but thought I would also let you know or other members of GCARC know as well. I was very lucky to make contact with W1AW in November 2021 on FT8. I was very excited to receive a QSL card from them some time later. I have been told it's very tough making contact with them as they are quite popular whenever they are on the air. I enjoy reading QST every month and have been receiving the paper copy as well as looking at the online version. To my surprise I came across the page showing various QSL cards from around the country and the world, they feature monthly, to immediately focus my eyes on my WA2IBZ card! Needless to say I had a big smile on my face! I wanted to share my excitement with others in GCARC of this "lucky" experience.”

Howard Marder, WA2IBZ



## 13 Colonies Special Event Stations Club Member Comments

### **Tony Starr, K3TS :**

Every year, right after Field Day is over, I start getting ready for the annual 13 Colonies Special Event. I started out as a casual participant, and wound up as one of the K2I New Jersey operators several years ago, after Darrell, AB2E, talked me into it. I don't always have enough time to operate as much as I would like to, but I always enjoy the time spent operating. I also try to work all of the 14 US stations, each year doing something different to make it more challenging or interesting. For example, last year I worked all of the Colonies stations on 40m CW. This year, I repeated that feat, but FROM THE MOBILE with 200 watts and a Hustler mobile whip antenna!

As a K2I operator, I split my time between CW and SSB, and made about 800 Q's in total. The average among our 9 operators was around 1300 per operator. We are fortunate to have some good operators, but we don't have as many as some of the other Colonies stations do, so our totals are not as high as theirs. We could always use some more good operators, if we can find some willing volunteers. The rates this year were a bit more manageable for me at least than they have been in the past. I think my highest hours were about 120 on CW and about 160 on phone. I did not work any FT8, but some of the other K2I stations did and they did very well. All bands and modes are active for this event, so there is truly something for everyone. If you have never tried it, the event starts on July 1<sup>st</sup> of each year and runs for 7 days. I am already looking forward to it.

### **Chuck Colabrese, WA2TML :**

I worked all of the 13 Colony stations on 40 or 80 meter SSB. I worked the French station on 20 meter SSB. I did not work the other two bonus stations.

### **Howard Marder, WA2IBZ :**

I was very active again this year working the "13 Colonies Special Event." Probably had an easier time than most, as I was operating FT8/FT4 Digital Mode, using a ZS6BKW Multi Band HF Dipole Antenna. Still, getting DE was a little more difficult to get than most all others. In the end I got all the 13 Colonies and even the Bonus Stations! I have submitted my Log Sheet and looking forward to the very nice Certificate they send out.

### **Gene Schoeberlein, AA2YO :**

I worked 8 of the 13 colonies special event stations : NC, MA, SC, PA, VA, CT, NY, and NJ on 40 meters. Heard 2 more on 20 meters but was unable to work them.

### **Bart Kleczynski, AC2PT :**

For 13 colonies, I ended up working only 7 of the stations, plus the French bonus station. I couldn't break through the pile-ups and SWR problems with my Hexbeam (ended up taking it down for feedline repair) prevented me from completing the clean sweep. Still a fun contest!

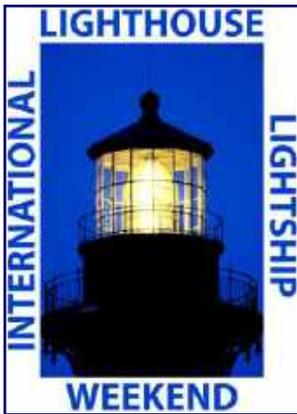
### **Bill Mollenhauer, N2FZ :**

My first time working the 13 colonies. Worked 10 stations on CW including WM3PEN. Not sure if I will do it again. Too much like a contest with fast operators and big pileups. Much prefer the Rt 66 event and have worked it for years.

*13 Colonies Comments - Continued on page 16*

**Greg Ciraula, W5DO :**

I participated in the 13 Colonies Event for the first time this year. All 13 Colonies and all bonus stations were contacted. All but the French station was via FT8. I contacted the French station on the last evening of the event via 20m SSB.



**International Lighthouse Lightship Weekend  
August 20 - 21, 2022 : [www.illw.net](http://www.illw.net)**



**Turtle Rock Lighthouse  
Schuylkill River, PA**

**Phil-Mont Mobile Radio Club  
will be operating at the Turtle  
Rock Lighthouse during the  
ILL Weekend**

[www.phil-mont.org](http://www.phil-mont.org)



**Sandy Hook Lighthouse  
Highlands, NJ**

**The Garden State Amateur Radio Association will be  
operating at the Sandy Hook Lighthouse during the  
ILL Weekend**

[www.gsara.club](http://www.gsara.club)



**Cape May Lighthouse  
Cape May Point State Park, NJ**

**The Cape May County Amateur Radio  
Club will be operating at the Cape May  
Lighthouse during the ILL Weekend**

[www.cmcarc.org](http://www.cmcarc.org)

## The "DigiNet"

First & Third Mondays Of Every Month @ 2000 Hours

Next Net Meeting : Monday, October 3, 2022

147.180 MHz Repeater & EchoLink : W2MMD-R

Topic to be taken up in October is FLDIGI.

DigiNet is currently on summer hiatus. The Digi-Net sessions will restart on Monday, October 3, 2022, due to Labor Day falling on the first Monday of September. Subsequent topics will be announced by the GCARC Education Committee on the website and in later *CrossTalk* issues.

**The next monthly VE Testing session is set for Thursday, August 11, 2022.  
Regular test sessions are the second Thursday of each month at 1900 hrs.  
Testing is done at the W2MMD Clubhouse!**



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

### **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

**Greg Ciraula, W5DO : August 4, 2022**  
**Mary Delemarre, W2TDS : August 11, 2022**  
**Chris Prioli, AD2CS : August 18, 2022**  
**Steve Farney, W2SEF: August 25, 2022**  
**Gary Mirkin, WA3SVW: September 1, 2022**  
**Greg Ciraula, W5DO : September 8, 2022**  
**Mary Delemarre, W2TDS : September 15, 2022**  
**Chris Prioli, AD2CS : September 22, 2022**  
**Steve Farney, W2SEF : September 29, 2022**  
**Gary Mirkin, WSA3SVW: October 6, 2022**  
**Greg Ciraula, W5DO : October 13, 2022**  
**Mary Delemarre, W2TDS : October 20, 2022**  
**Chris Prioli, AD2CS : October 27, 2022**



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



## *At The Repair Bench...*

*A monthly column describing a recent repair bench event.*  
*By Chris Prioli AD2CS*

### **NanoVNA**

Fairly recently, another member – Rich Subers W2RHS – and I entered into a complex trade agreement wherein he would give me an unbuilt MFJ antenna tuner kit for me to build, and in exchange, I would replace his failed NanoVNA with a new and slightly larger one. Rich threw in the failed NanoVNA, so I figured I would give it a try to see if I could repair it.



This particular NanoVNA is encased in a multi-piece 3-D printed plastic enclosure, which does a good job of protecting the unit. It would also serve to keep things in place post-repair. Rich had told me that the unit worked, even though there was no display on the screen, as he could connect it to his phone or PC and use the functions of the NanoVNA with no trouble via the software. I suspected that the problem was in the display backlight wiring.

We were fairly sure that the problem was a bad solder joint underneath the display, which was attached to the main PCB with some strong adhesive. The first question was whether or not I could successfully separate the display and the main board. I tried using some monofilament line to cut the adhesive, but the line kept breaking. Ultimately, I tried using some AWG24 solid copper wire, which did the trick nicely.

Once I had the unit open, I powered it up and started putting localized pressure on the end of the Kapton cable that connects the display to the main board. There are about twenty individual connections carried in that cable, so I had to determine which ones were faulty. It soon became evident that there were multiple joints open, as pressing on various connections would illuminate different LED's in the four-LED backlight system.

These wire connections are on a pitch or spacing of about 0.050", so I chose NOT to attack this job with a soldering iron. Instead, I fired up my hot air reflow gun and heated the area with the hot air while placing light pressure across the entire Kapton cable end. This approach was quite successful, restoring the unit backlight to full operation. The best part was that no undue damage was done to the Kapton cable, and I did not have to worry about solder bridges.

I flipped the display back in place, where the original adhesive bonded back together and held the display tightly. I then reassembled the plastic enclosure and the job was complete. Just for fun, I tried a calibration and then swept some coax, some lamp cord, and a couple of antennas. All worked as it should.

Because Rich had a new unit and did not want this one back, I casually offered it to the first taker on a Tuesday Noonday Net, and it was gone inside of five minutes. Now, another member, Anthony Cerami N2OAC, is the proud owner of a resurrected NanoVNA.



## Amateur Radio Emergency Services Update - August 2022

By Bob Keogh, KD2NEC - Gloucester County Emergency Coordinator

### 1. What Good is Winlink? (From the desk of Karl W2KBF)

Winlink is a radio messaging system that provides an email gateway between Amateur Radio and the Internet, such that a ham radio operator who is in an area without other means of communication can send an email message by radio to any Internet email address and receive email replies. A Radio Amateur might use Winlink from his/her home station if normal communications were disrupted temporarily due to violent weather, hacking or other disturbances. How else would you let your out of state relatives know that you are OK and not to worry? A Radio Amateur that finds himself in a Red Cross emergency shelter without cell phone or internet access could use Winlink to communicate with Red Cross, Office of Emergency Management (OEM) or other agencies.

Last year **Jonathan WB2MNF** and the **GCARC Skunkworks Crew** installed a WinLink Radio Message Server (RMS) at the Clubhouse and they continue to make improvements. W2MMD-3 can be reached on 145.030 MHz using the mode VARA FM or by VARA HF on 7106 kHz. The current antennas limit coverage but the station continues to evolve as the W2MMD Clubhouse recovers from tornado damage. Future enhancements under consideration include adding support for Packet radio and possibly a digipeater. Many other WinLink RMS stations are distributed throughout the USA and the world.

To get started with WinLink, browse to <https://www.winlink.org>.

### 2. Bike MS : City to the Shore Ride 2022

Although this is a planned "Public Service" Event versus an unplanned "Emergency Service", it is great practice for all Amateur Radio Operators.

Rather than trying to describe it myself, take a few minutes and watch this video. You won't be disappointed. <https://youtu.be/mou0moNZ2AM>

The event this year will be held on Saturday, September 24 through Sunday, September 25, 2022.

Also go to our Club's website at <https://gloucestercountync.weebly.com/bike-ms--walk-ms-events.html> for the latest links and some past articles from Club members who participated in the event.

### 3. June ARES Training Nets

- June 5 15 check ins
- June 12 15 check ins
- June 19 17 check ins
- June 26 15 check ins

ARES Training Nets are conducted every Sunday Night at 2000 Hours on the 147.180 MHz repeater, PL 131.8 Hz and EchoLink W2MMD-R.

You do not have to be a member of ARES to check into this net. All licensed radio operators are welcome.

If anyone is interested in being part of ARES, or if you have any questions about the program, please contact me via e-mail at **KD2NEC <at> QSL <dot> net**.

## L/C Meter Kit Build - Part One

By Chris Prioli, AD2CS

It's that time again. Back at the build bench, with another HeckKits ([www.heckkits.com](http://www.heckkits.com)) project. This time, it's an L/C Meter. This is a digital meter for measuring the inductance of a coil or the capacitance of a capacitor. According to the unit documentation, the range of the capacitance meter is 0.0 picoFarads to about .1  $\mu$ Farads, and the inductance range is 0.0  $\mu$ Henry's to about 10 mHenry's. The meter also displays values in nX where X is either a capacitance or inductance value. This meter works by measuring the frequency of an oscillator which is operating with the unknown value as one of its elements. That frequency is compared to a calibration frequency and the mathematics is done to determine the value of the unknown device under test.

### Introduction

The documentation explains that this meter is a variation of another meter explained at Phil Rice VK3BHR's website : <https://sites.google.com/site/vk3bhr/home>. I spent some time on that site, reading about Phil's version of the meter. His meter design was an outgrowth of his lack of desire to do the math he used to do when measuring small coils, based on their frequency effect in a one-transistor oscillator circuit.

The HeckKits version uses software from an Indonesian author, and as a result, the screen prompts are not in English. In reality, the HEX code is a derivative of VK3BHR's software, rewritten by an Indonesian ham, YC3TKM. At first, the non-English prompts bothered me, but I quickly got used to them. I will, however, eventually find the time to rework the code to provide English prompts for my build of the meter. I will say that the actual readings use the familiar C and H values, with appropriate prefixes.

Pre-use zeroing of the meter is done in two different ways, depending on the mode to which the meter is set. When set to capacitance, the "zero" set is made with the test terminals open, while in inductance mode, the test terminals or leads are shorted for zeroing.

This meter uses the same form factor enclosure as the previous HeckKits build about which I wrote, the FET DIP Meter. Again, we have an LCD panel at the upper end of the meter face. The kit ships with a non-backlit LCD panel. I chose to change that, and so I supplied and installed a backlit LCD panel during my build - more on that later.

Another familiar point is that there are no legends of any kind on the PCB - no component outlines, values, or component ID's. This is one area where I believe that HeckKits could really do a better job. Additionally, the front panel labeling of the unit is another shortcoming, in that there is none supplied. I resolved this issue by printing my own label to affix to the front face.

Refer to **Figure 1** for a schematic of the meter. The heart of the unit is a PIC16F628 microcontroller in a DIP-18 package. The  $\mu$ C ships pre-programmed and ready to install in the provided DIP socket. Power is supplied by a standard 9V battery (not provided), and is regulated to the requisite 5VDC by an LM7805 three-pin voltage regulator IC. A DPDT latching pushbutton switch is used to select the operating mode, another one as the power switch, and a momentary version is used to zero the meter. There are a total of nine capaci-



*AD2CS L/C Meter Kit Build - Continued on page 21*

### *AD2CS L/C Meter Kit Build - Continued from page 20*

tors used, in a mixture of tantalum, aluminum electrolytic, polystyrene, and ceramic types. An 82 $\mu$ H inductor is also used. The resistor complement is made up of ten quarter-watt resistors in four values, and a single pole, single throw single-inline relay is employed, with a 1N4148 diode across the relay coil for spike suppression. The LCD panel is a two-line, eight characters per line device wired for 8-bit operation, and a 5K $\Omega$  trimmer potentiometer is provided for LCD contrast adjustment. The  $\mu$ C clock is set by a 4 MHz crystal. That's the whole shooting match for the main unit, apart from some four-pin headers, a couple of ninety-degree headers (one six pins and one four), a battery snap, wire pigtails, and some hardware including a pin jumper and three switch caps. **Figure 2** displays the parts spread for the main unit. An accessory kit, shown in **Figure 3**, includes the components to assemble the device-under-test (DUT) adapters and the test leads. The test jacks are pre-installed to the main PCB and accessory PCB's as shipped.

As with the previous HeckKits build, a rudimentary wooden stick and sheet metal nut driver to fit the 2-56 hex nuts used in the unit is included in the kit. The main PCB and the LCD panel are shipped secured in place in the enclosure, as seen in **Figure 4**. In order to assemble the unit, the boards must be removed from the enclosure. Be sure to set the hex nuts aside in a secure place so that you can find them when it becomes time to re-install the boards. The hex nuts are tiny and are easily lost. The bare main PCB is shown in **Figure 5**. Note the pre-installed test jacks on the component side of the PCB

## **Assembly**

Assembly starts with installing the lowest-profile components to the main PCB. Those components are the resistors, the inductor, and the diode. Identify the specific locations of each of the resistors by referring to the circuit board layout diagram in the build instructions. Once you are certain that you have each of the resistors in its correct location, solder it in place and clip off the excess lead length. The 1N4148 diode is installed with its cathode end towards the center of the board, alongside the SIP relay position.

Install the 18-pin DIP socket (with its notched end toward the end of the PCB with the test jacks installed), the four-pin two-by-two pin headers (**Figure 7**), the six-pin and four-pin right-angle pin headers, and the 5k $\Omega$  trim pot. Follow that with the various capacitors, observing component values and also noting the polarity of the two 10 $\mu$ F tantalum, the 22 $\mu$ F electrolytic, and the 10 $\mu$ F electrolytic capacitors.

When installing the two 1000pF (0.001 $\mu$ F) axial polystyrene film capacitors, install them on end down against the PCB with the opposite lead in the correct hole as indicated on the component layout diagram. While these two capacitors are not polarized per se, the installation direction does often make a difference. When installing metal plastic film capacitors, it is recommended that the outside foil end of the capacitor be installed to the lower impedance side of the circuit, usually to ground. In the case of the capacitors included with my kit, which had no manufacturer's marks other than a "1000" for the picoFarad value, the outside foil end could be visually identified by looking through the clear plastic body of the capacitor. The foil roll inside the capacitor is closer to one end than it is to the other. The end away from the rolled coil is the outside foil end, as can be seen by looking carefully at the visible lead inside. This end of the capacitor should go DOWN on the capacitor nearer the edge of the PCB, and it should go UP on the capacitor nearer the center of the PCB. A quick look at the PCB diagram shows that the capacitor near the center of the PCB is grounded through the relay contacts, while the other one is directly tied to ground.

It is unknown whether or not this level of care is actually necessary in this design. However, this installation direction is standard for foil-type capacitors, and as such is the best practice and therefore should be fol-

*AD2CS L/C Meter Kit Build - Continued on page 22*

lowed. Many designers depend on the inherent shielding provided by this installation direction to minimize noise pickup in the capacitors, and the oscillator will certainly radiate some noise.

Install the SIP relay to the PCB. This device is pin-symmetric, so installation direction does not matter. Also install the 4 MHz crystal and the LM7805 TO-220 voltage regulator IC. The LM7805 needs to have its leads bent at ninety degrees downward in relation to the marked surface of the IC body. The IC in my kit was pre-bent, but that may or may not be standard practice. If yours is unbent, be sure to bend it before installation.

When performing the next step, installation of the three pushbutton switches, be sure to install the two latching switches in the center and left-hand locations, when viewed from the component side of the board. Finally, solder the battery clip leads in place, observing red/black positive-negative polarity as indicated on the circuit board component layout diagram.

Once the main PCB is complete, as shown in **Figure 8**, it is time to wire the LCD board. The board will get a total of ten wires soldered to it, in two groups. There are two wire pigtailed with plugs in the kit remnants, one with six wires, and one with four wires. The six-wire one has, in order from one end of the plug to the other, a brown, a red, an orange, a yellow, a green, and a blue wire. These wires will be inserted and soldered, respectively, into holes 1 through 6 on the LCD board. Similarly, the four-wire piece has, again in order from one end to the other, a brown, a red, an orange, and a yellow wire. These wires will go into holes 11 through 14, in sequence starting with the brown wire. The graphic at **Figure 9** will show which wire color goes into which PCB hole. Solder these wires in place as well. These wires all go in from the side of the PCB with the hole numbers, and are soldered on the side with the LCD screen. It should be noted that the documentation parts list calls for right-angle plugs on these wire pigtailed, but the ones in my kit were zero-degree types. The completed LCD board is shown in **Figure 10**.

After soldering the wires to the LCD board, the next step is to check the operating voltages on the boards. Plug both of the wire plugs from the LCD board onto the right-angle headers on the main board, with the brown wires to the left in each case when looking at the component side of the board. Snap a fresh nine-volt battery onto the battery snap and turn the unit on by pressing the left-hand latching pushbutton switch. Next, using a voltmeter, measure the voltage at pin 14 of the IC socket and at pin 2 of the LCD panel. Both locations should measure a nominal five volts. If the voltage is OK, you can move on with the assembly. If the voltage is not correct, check the installation and soldering of the LM7805 voltage regulator as well as the battery snaps. Start by verifying nine volts at pin 1 of the LM7805. If the nine volts are present but the five volts are not, check the installation and soldering of the 10 $\mu$ F electrolytic and the 0.1 $\mu$ F ceramic capacitors at pin 3 of the LM7805 voltage regulator. If no soldering errors such as solder bridges are found, the voltage regulator IC may be faulty.

If the five-volt supply is correct, shut the unit down and carefully install the PIC16F628  $\mu$ C into the IC socket, observing the correct installation direction. Properly installed, the dotted or notched pin 1 end of the  $\mu$ C IC will be towards the test jack end of the main PCB. Be sure to get all eighteen pins into their slots in the IC socket without missing the socket to the outside and without allowing any pins to fold under the IC. It is sometimes helpful to gently press the IC at an angle on a tabletop to very gently and very slightly bend each row of pins towards the middle of the IC body.

Disconnect the battery from its snap. Then gently press a switch cap onto each of the pushbutton switches, aligning the shape of the switch shafts to the openings in the underside of the switch caps. Press them on until they snap into place.



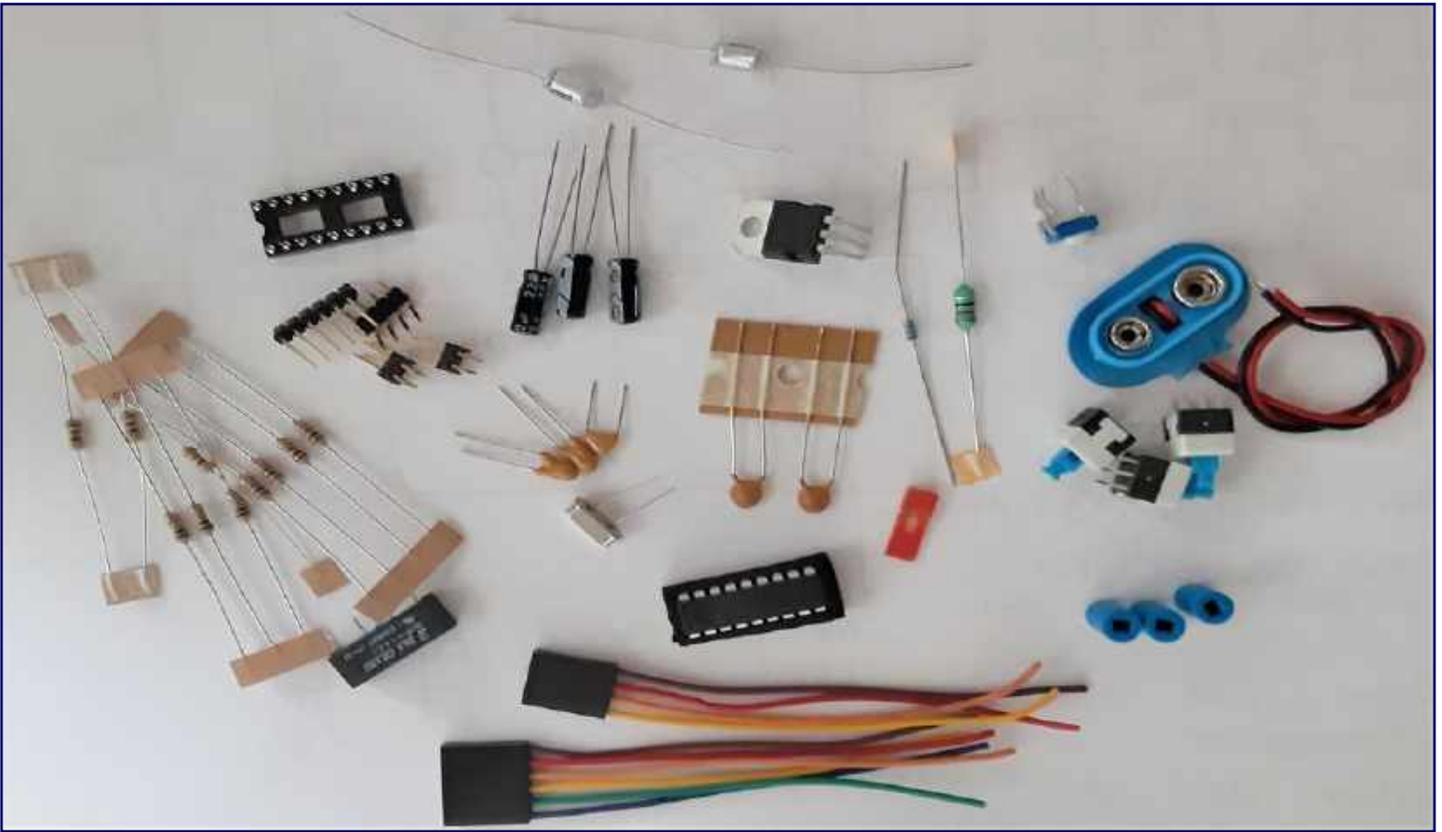


Figure 2 : Main Parts Spread

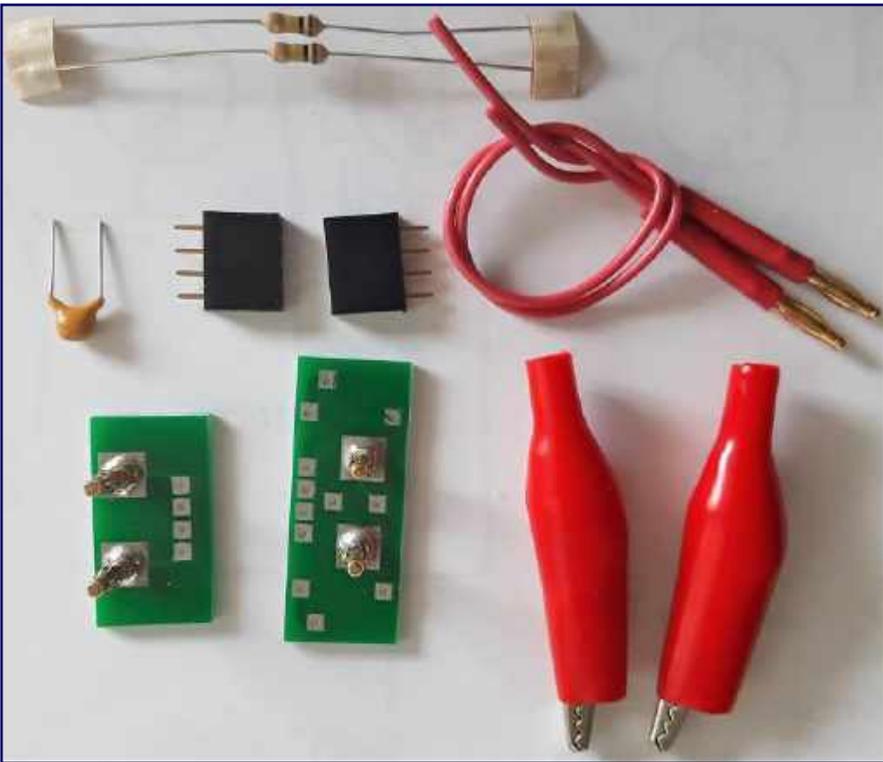


Figure 3 : Accessory Parts Spread

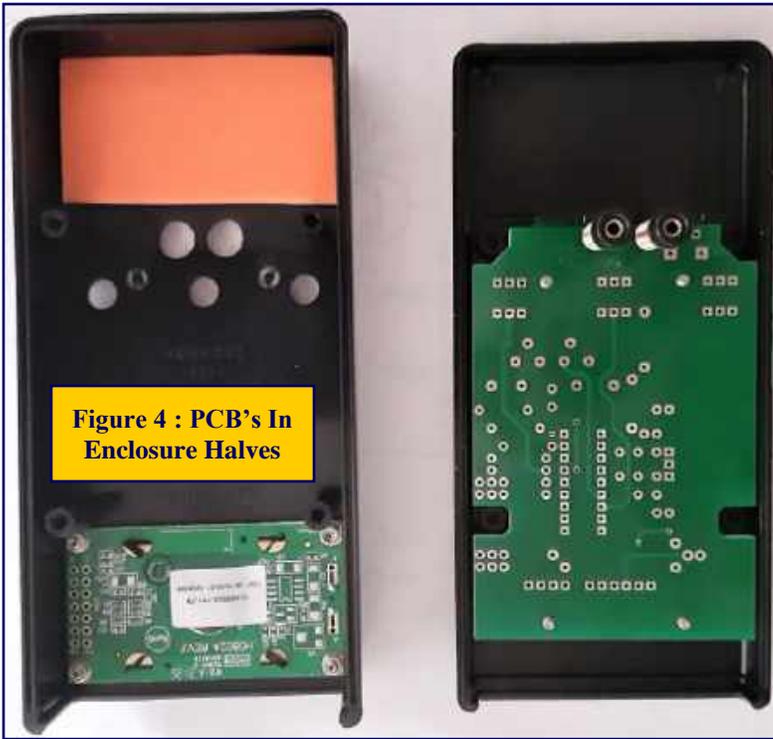


Figure 4 : PCB's In Enclosure Halves

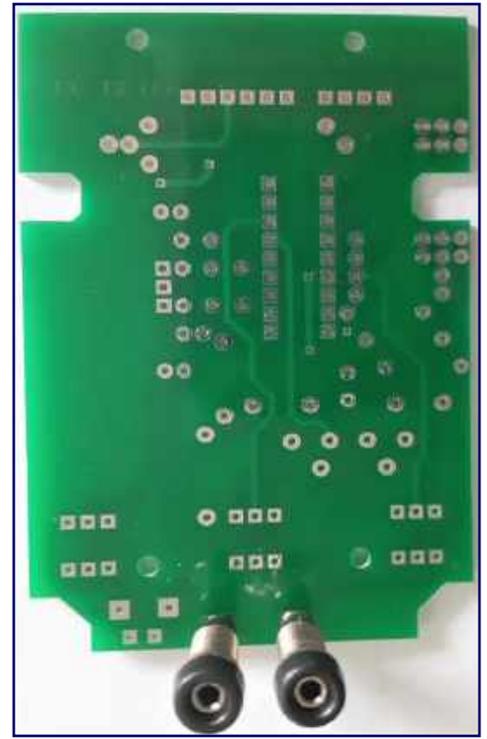


Figure 5 : Main PCB Component Side



Figure 7 : Low Profile Parts Installed

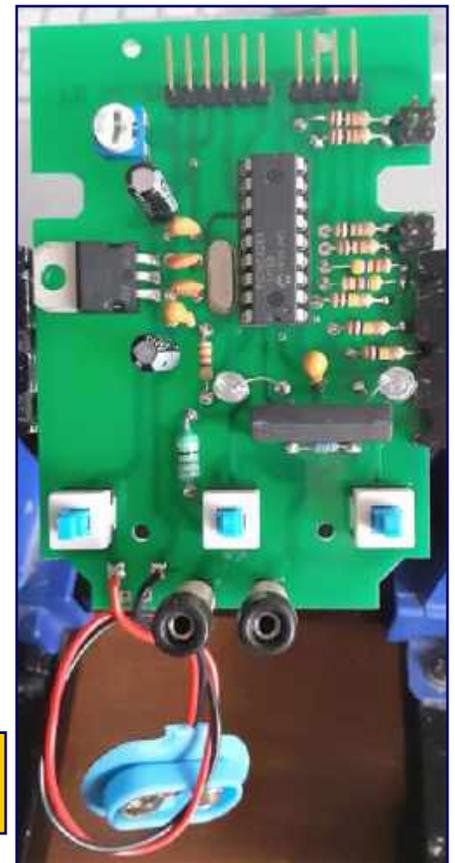


Figure 8 : Completed Main PCB

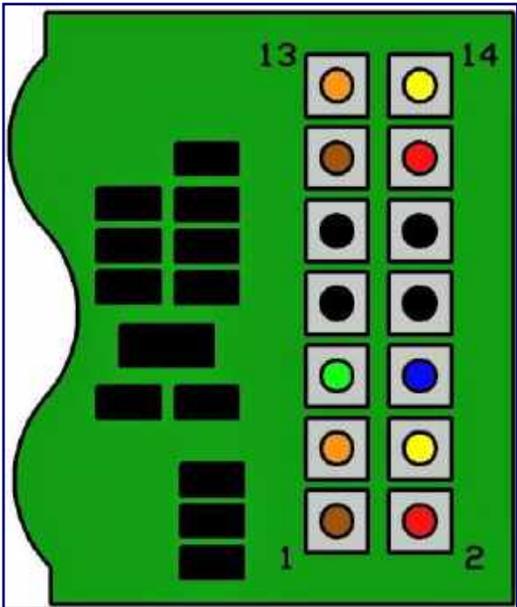


Figure 9 : LCD Wire Color Code Graphic



Figure 10 : Wired LCD Board

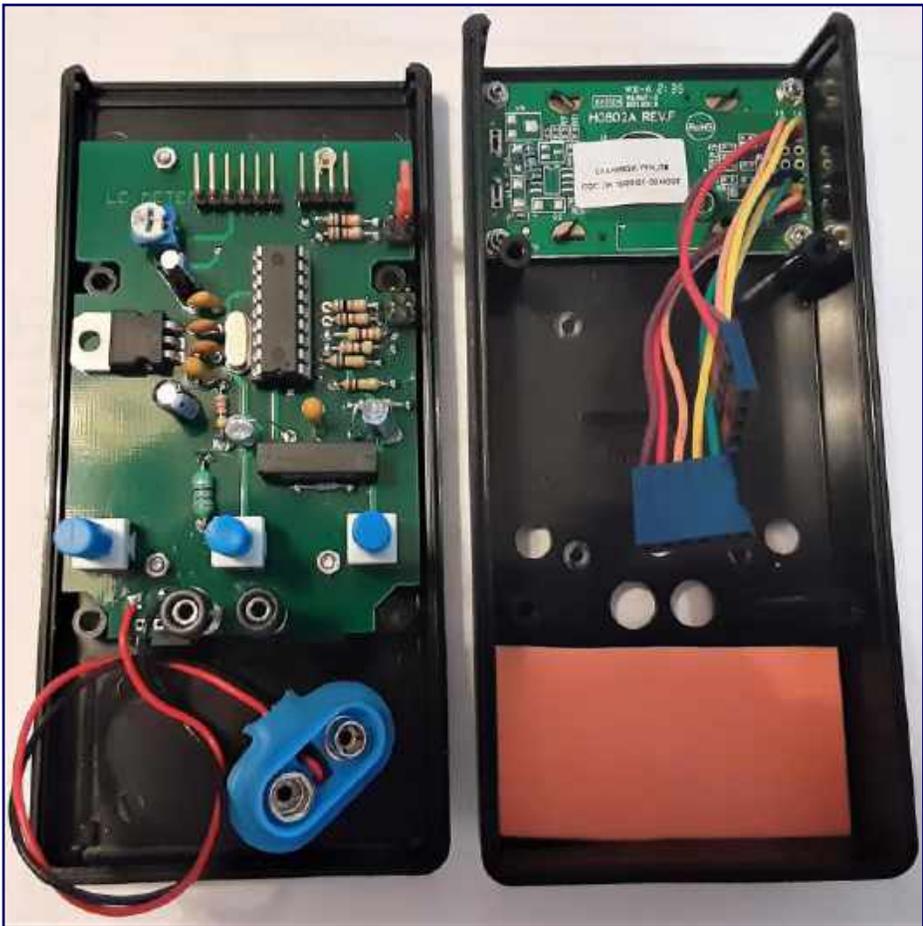


Figure 11 : PCB's Installed In Enclosure Halves

## 2022 Clubhouse Projects - We Will Rebuild Back Better

### Shed :

- Paint Siding
- Install Electrical Wiring
- Install Lights
- Build Ramp
- Secure Roof

### Painting :

- Front Steps
- Back Steps
- Power Pole
- Club Sign

### Front Steps :

- Remove Existing Paint
- Replace Broken/Rotted Wood
- Paint

### Caulk Front Storm Door

### Lightning Protection Project :

- Install copper strapping in Library Room
- Install copper strapping in VHF/UHF Room
- Complete grounding rod installation around Clubhouse
- Complete grounding rod installation around towers

### Front Flood Lights :

- Replace Left Flood Light
- Adjust Light Position Direction

### Back Steps :

- Spray Mold
- Power Wash
- Remove Existing Paint

### Replace Interior Front Door

### HF Tower :

- Install new tower
- Install new antenna

### VHF/UHF Tower :

- Repair / Replace tower
- Repair / Replace antennas

We have a 5 gallon bucket of white paint in the Clubhouse. I have a power washer at home that I lend out for someone to use. For more information about these projects, please contact Jeff WB2ZBN.



Maximilian Kolbe, SP3RN  
Patron Saint of Amateur Radio  
Operators

**Saint Maximilian Maria Kolbe : (January 8, 1894 - August 14, 1941)** was a Polish Conventual Franciscan friar who volunteered to die in place of a stranger in the German death camp of Auschwitz, located in German-occupied Poland during World War II. He was active in promoting the veneration of the Immaculate Virgin Mary, founding and supervising the monastery of Niepokalanów near Warsaw, *operating an amateur radio station (SP3RN)*, and founding or running several other organizations and publications. Kolbe was canonized on October 10, 1982 by Pope John Paul II, and declared a Martyr of charity. He is the *patron saint of amateur radio operators*, drug addicts, political prisoners, families, journalists, prisoners, and the pro-life movement. John Paul II declared him "The Patron Saint of Our Difficult Century".



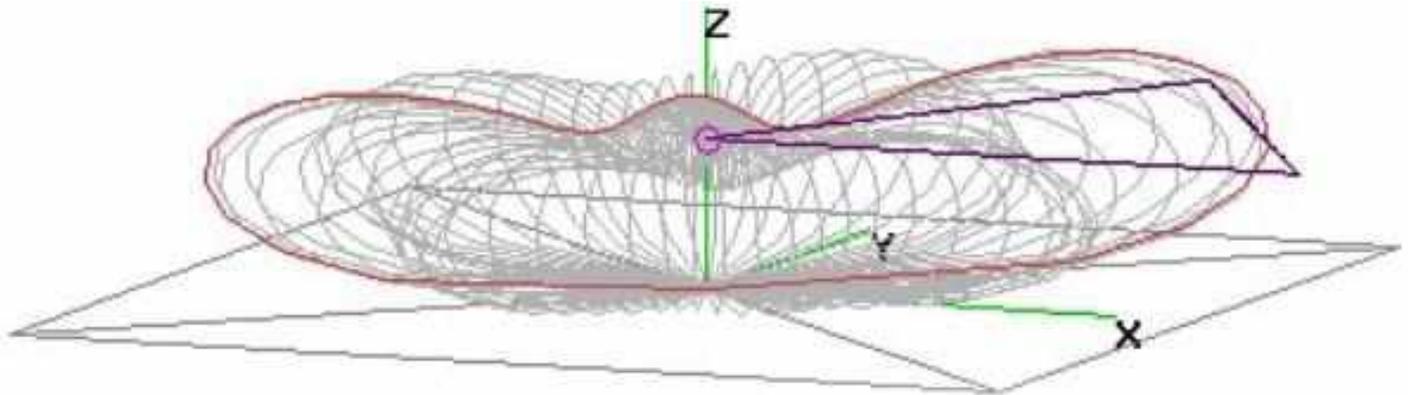
## Visitors To The Big Wire Loop At Field Day

By Jim Wright, N2GXJ

Thank you to everyone who stopped by, and to all 14 operators who gave digital a try on the big wire loop out at field day this year! A shout-out of thanks to operators **Jim N2GXJ, Earl KC2NCH, Chuck KD2EIB, Keith KD2ZRB, Gus KC3TGB, Mike N2WOQ, Rolf KD2VQG, Glen Owens K2GDO, Chuck WA2TML, Mary W2TDS, Marc WM2Y, Mr. Breen,** and youth operators **Juliana** and **Jonathan**, who combined, were able to log 455 digital contacts from the one radio attached to the big loop during the weekend!

Since our Club would have multiple transmitters on the air simultaneously from the same field during this field day, we'd coordinated in advance which band-modes would be assigned to specific radios to maximize our coverage. In the case of this radio attached to the big wire loop, the assignment was to focus on operating digital on the 20 meter band, so that is what we did.

The antenna was super-simple. It was just a big multi-wavelength long 280 foot long loop of #14 stranded insulated THHN electrical wire, with a 4:1 balun. The loop was raised into the air as a horizontal triangle using ropes, with two convenient trees from along the tree line providing two of the corner supports, with the third point provided by a temporary mast set up out in the field.



With setup help from Mr. “one shot spud gun” **Sheldon K2MEN**, and by Mr. “wild rope detangler” (and creative cardboard laptop sunshield creator) **Chuck WA2TML** the night before, we were ready ahead of time to join the on-air frenzy that started at 2pm local on Saturday.

Once the event was live, it was fun watching the sections get filled in on the N3FJP logger map we had on display, tied into entries being made in WSJT's digital log. As the day progressed, we could see the classic arc of one skip distance states getting filled in across the Midwest and to the South, with occasional two hop distance states (and provinces) getting filled in as well.

Then, as the afternoon stretched into evening, so did the distances of the contacts we started making. After dinner, we could see the map was filling in for the whole of the west coast, from California up to Oregon and into Canada, and even out to Hawaii, along with some of the states we'd missed earlier in between.

After dark, the contacts kept coming. The band remained open, with FD contacts still being made past 3am. We even bagged a couple of stations in Australia and New Zealand! Around 3:30am, we took a break, after a visiting skunk came by to check us out, and then a frighteningly large spider somehow got inside our shelter. We resumed at daybreak on Sunday morning, easily making contacts with France, and several other stations

*Big Wire Loop At Field Day - Continued on page 29*

*Big Wire Loop At Field Day - Continued from page 28*

CQ'ing for FD from Europe, along with other stations up and down the East Coast, and then out into the Midwest again, as 20M again began to wake up in that direction.

As the 2pm cut-off approached on Sunday, we could see other stations start to shut down, so we began to do the same, starting with the shelter, and other non-radio essentials, holding out until a last few contacts had been made before pulling the plug. In all, the weather was dry, and everyone seemed to have a good time.



Another great field day! Thank you GCARC!

**New Jersey**  
SALEM COUNTY • FM29KN  
**AMSAT**

**W5DO**

**Gregory (Greg) Ciraula**  
27 Primrose Drive  
Pittsgrove, NJ 08318-4570  
USA

Greg W5DO's new QSL Card



Sussex County Amateur Radio Club to participate in national event (<https://bit.ly/3yWSwFU>)  
*The Advertiser - News South* (New Jersey), June 13, 2022 - *Sussex County ARC is an ARRL Affiliated Club.*

*Article Credit : The ARRL Letter for June 16, 2022 - [www.arrl.org](http://www.arrl.org)*



## Club Station

ARRL invites you to be part of "**Club Station** (<https://bit.ly/3nT1FsC>)," the newest column in QST. This column, written by clubs, for clubs, is a designated space to share specific and practical ideas about what has contributed to successful clubs to help others grow and thrive.

In each issue, a different club will share how they undertook a specific activity or project, how and why it was successful, and any challenges they may have had to overcome throughout the process. Some examples include successful community club projects, creative ways to attract new members, or getting youth involved with ham radio. Additionally, many clubs across the country are being creative in meeting the challenges of COVID-19 to figure out how to keep club members active and enthusiastic.

If your club has developed a creative way to get around common challenges, we want to hear from you! In order to help you tell your story, we have published a new version of the ARRL Author's Guide that is geared toward "Club Station," and includes a **club profile form** (<https://bit.ly/3nS0qKf>). Both of these documents can be found **here** (<https://bit.ly/3OZ7QHk>). You don't have to have writing experience to be published in QST, and if your submission is accepted, our editorial staff will work with you to get your story ready for publication.

All clubs are welcome to participate. If you have any questions, contact us at [clubs@arrrl.org](mailto:clubs@arrrl.org).

We look forward to hearing from you and hearing your story!

*Article Credit : ARRL Club News for June 21, 2022 - [www.arrrl.org](http://www.arrrl.org)*



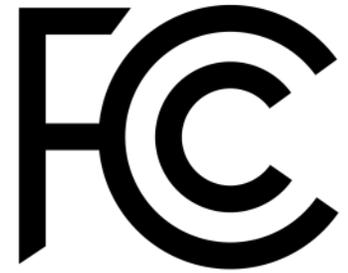
The official attendance at the 2022 Dayton Hamvention® was 31,367 visitors. General Chairman Rick Allnutt, WS8G, said although that was about 1,000 less than 2019, he considered it "not bad" for a pandemic recovery year. Hamvention was canceled in 2020 and 2021 because of the COVID-19 pandemic.

*Article Credit : The ARRL Letter for June 2, 2022 - [www.arrrl.org](http://www.arrrl.org)*



## FCC Legacy CORES System to be Retired

The Federal Communications Commission (FCC) will retire the **Legacy version** (<https://apps.fcc.gov/coresWeb/publicHome.do>) of its Commission REGistration System (CORES) on July 15, 2022. CORES is the FCC's public-facing database that enables and tracks certain types of FCC and FCC applicant actions, including amateur radio applications and licenses. Its implementation has enabled routine amateur applications and licenses to be issued overnight instead of over weeks, as was the case with earlier methods. ARRL The National Association for Amateur Radio® advises the amateur radio community to transition to the updated version of **CORES** (<https://apps.fcc.gov/cores/userLogin.do>) as soon as possible.



In essence, CORES is designed to identify those who hold certain types of FCC licenses and FCC authorizations, including amateur licenses, and organize them in an easily accessible manner under a common FCC Registration Number (FRN) regardless of whether one holds a single such authority or thousands. The new CORES, in addition to assigning individual FRNs, allows holders of multiple FRNs to aggregate them under a single account where the licenses and authorization, fees and payments, and related actions can be administered from within the same account. In effect, new CORES can be conceptualized as an electronic interactive file folder. The updated version of **CORES** (<https://apps.fcc.gov/cores/userLogin.do>) has been available since 2016, and now its use will be mandatory for all amateur licensees when submitting amateur-related applications. Starting on July 15, 2022, the Legacy CORES website will re-direct users to the Commission's updated **CORES site** (<https://apps.fcc.gov/cores/userLogin.do>). Although some functionalities in the old system will continue to work for a short time, the **FCC has urged all users** (<https://www.fcc.gov/licensing-databases/commission-registration-system-fcc>) to transition to the updated CORES system to take advantage of its enhanced security and functionality.

### Register with the FCC

Licensees that do not already have an FCC CORES Username Account must create one with a unique username (a valid email address) and password. After creating the account, when logged in, users should associate their existing FRN or FRNs with this account. Instructions for doing so are on the **FCC Registration Help** (<https://apps.fcc.gov/cores/publicHome.do?help=true>) page. One's FRN is printed on all current amateur applications and licenses, and will not change. FRNs can also be found by looking up one's call sign in the **Commission's ULS** (<https://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp>) or by using the **FCC's advanced search** (<https://apps.fcc.gov/cores/advancedSearch.do?csrfToken=>) page.

The FCC has posted **Tutorial Videos** (<https://www.fcc.gov/licensing-databases/fcc-registration-system-cores/commission-registration-system-video-tutorials>) to assist with the transition. ARRL VEC Manager Maria Somma, AB1FM, recommends viewing the videos "Getting Started With the New CORES," which explains how to register for a CORES Username Account, and "Associating an FRN to a Username," which instructs Legacy CORES users on how to link one or more existing FRNs to a username. **FCC CORES Registration Instructions** (<https://www.arrl.org/fcc-cores-registration-instructions>) can also be found on the ARRL website. Additional information is available on the **FCC** (<https://www.fcc.gov/licensing-databases/commission-registration-system-fcc>) website or by calling the FCC Licensing Support Center at (877) 480-3201, Option 4, and on the **FCC's e-support** (<https://www.fcc.gov/available-support-services>) page.

*Article Credit : The ARRL Letter for July 7, 2022 - [www.arrl.org](http://www.arrl.org)*



## January 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 January 2022 activity report of the VM Program.

- Technician-class operators in New York and Delaware, and in Simpsonville, South Carolina, were issued notices for FT8 operation on 3.573 MHz. Technician licensees have no privileges on 75 meters.
- Technician-class operators in Cory, Indiana; Prescott, Arizona; San Jose, California, and Fort Myers, Florida, were issued notices for FT8 operation on 7.074 MHz. Technicians have only CW privileges on 40 meters.
- Commendations for exemplary operation were issued to licensees in Columbia, South Carolina (personal injury emergency traffic handling on 2 meters during a January 50 K marathon), and Livingston, Texas (exemplary courtesy during a POTA activation on 20 meters in December 2021).
- Cases in Charlottesville, Virginia; Northridge, California, and Sumner, Washington are in preparation for FCC referral for additional monitoring and enforcement action, including station inspections and review of license renewal.

The final totals for VM monitoring during December 2021 were 2,205 hours on HF frequencies, and 2,489 hours on VHF frequencies and above, for a total of 4,694 hours. Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH

## March 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 March 2022 activity report of the VM Program.

- General-class operators in Dalton, Georgia; Eastman, Wisconsin, and Warren, Michigan were issued notices for operation on 20 meters outside of their frequency allocation.
- Technician-class operators in Ambridge, Pennsylvania; Hemet, California; Liberty Hill, Texas; Simi Valley, California, and in Missouri were issued notices for FT8 operation on 7.074 MHz. Technicians only have CW privileges on 40 meters.
- An operator in Cayey, Puerto Rico, was issued a notice for overdriven and distorted FT8 transmissions that were causing harmonics and interference to other operators.
- An Advanced-class operator in Villa Rica, Georgia, was issued a notice for excessive bandwidth on 3.885 MHz.
- A Volunteer Monitor Alert was issued for a weeks-long constant carrier on 7.033 MHz, and the information was referred to the FCC. The VM Program Manager had two meetings with the FCC and participated in two amateur radio club meetings by videoconference.

The final totals for VM monitoring during February 2022 were 2,067 hours on HF frequencies, and 1,959 hours on VHF frequencies and above, for a total of 4,026 hours. Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH

*Volunteer Monitor Program Reports - Continued on page 33*

## **April 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 April 2022 activity report of the VM Program.

- A General-class operator in Jacksonville, Florida, was issued a notice for SSB operation on 40 meters outside of the General-class frequency allocation.
- Technician-class operators in Belleville, Michigan; Hico, Texas, and Burlington, Vermont, were issued notices for FT8 operation on 7.074 MHz. Technicians only have CW privileges on 40 meters.
- Licensees in Cartersville, Georgia, and Savannah, Missouri, were issued notices for excessive bandwidth on 75 and 20 meters. Both operators had SSB signals over 7 kHz wide. Section 97.307 (a) states that “no amateur station shall occupy more bandwidth than necessary for the information rate and emission type being transmitted, in accordance with good amateur practice.”
- A VM Alert was issued for the weeks-long unidentified constant carrier on 7.033 MHz. It originated from a remote amateur station that had been damaged by a power surge.
- A licensee in Pittsburgh, Pennsylvania, was cautioned about their operation of an APRS beacon that transmitted constantly, even while the vehicle was not in use.
- The VM Program Administrator had two meetings with the FCC and participated in one amateur radio club meeting by videoconference.

The final totals for VM monitoring during March 2022 were 2,309 hours on HF frequencies, and 2,876 hours on VHF frequencies and above, for a total of 5,185 hours. Thanks to Volunteer Monitor Program Consultant Riley Hollingsworth, K4ZDH

## **May 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 May 2022 activity report of the VM Program.

- An Amateur Extra-class operator in Indianapolis, Indiana, received a commendation for encouraging and assisting new licensees while managing regular check-ins on the W9WIN linked repeater system.
- An Amateur Extra-class operator in Myersville, Maryland, received a commendation for operation on the 147.090 MHz repeater of the Antietam Radio Association. The operator encouraged and assisted newcomers while managing check-ins for the Four States Net.
- A General-class operator in Ashburnham, Massachusetts, received a commendation for assisting weak-signal stations and encouraging new licensees while expertly managing net operations on 3.922 MHz.
- A Technician-class licensee in North Pownal, Vermont, received a notice regarding FT8 operation on 7.074 MHz. Technicians are not authorized to operate FT8 on 40 meters.
- A Technician-class licensee in Pulaski, Tennessee, received a notice concerning operation of FT8 on 14.074 MHz. Technicians have no operating authority on 20 meters.
- The VM Program Consultant met with a service technician of a land mobile communications

*Volunteer Monitor Program Reports - Continued on page 34*

company regarding interference to a Lancaster, Pennsylvania, repeater. The Consultant, along with Lark Hadley, FCC Director of Region 3, presented a forum about the VM Program at Dayton Hamvention.

The final totals for VM monitoring during April 2022 were 2,360 hours on HF frequencies, and 2,956 hours on VHF frequencies and above, for a total of 5,316 hours. Thanks to Volunteer Program Consultant Riley Hollingsworth, K4ZDH



## **Foxhunters Gather**

Foxhunting season is always open, and clubs around the country are participating in a variety of foxhunting events throughout the year. On May 14, 2022, the New Jersey Emergency Communications Team (NJECT) held its first annual foxhunt at Thompson Park in Monmouth County. The group was tasked with finding three separate transmitters.



Photo taken by Karen Gold. Submitted by Holger Skurbe, K2HES, President of NJECT.

*Article Credit : ARRL Club News for June 21, 2022 - [www.arrl.org](http://www.arrl.org)*



**A pedestrian foxhunt hunt was held during the June 21, 2022, Athens County Ohio Amateur Radio Association's (ACARA - <http://www.ac-ara.org>) summer potluck picnic at the Southside Park shelter.**

Kirk Groeneveld, KC8JRV, hid several weak transmitters throughout the grounds in the park for hunters who showed up with their gear to zero in on the locations. After a 15-minute search of the grounds Eric McFadden, WD8RIF, was able to locate the first of the transmitters hidden in a squirrel box/brochure tray in an adjacent field. The weathered box had blended with an attached tree to form the perfect hiding spot. The warm, humid day was a deterrent for continuing the hunt for other transmitters, so the hunt was cancelled early. Earlier Athens, Ohio area foxhunts had been designed for motor vehicle hunting, however, with the price of gas rising, it was decided a hunt (on foot) would be more logical at this club event. Two dozen ACARA members attended the picnic.

*Article Credit : The ARRL Letter for June 30, 2022 - [www.arrl.org](http://www.arrl.org)*



## **Important Message from ARRL VEC**

### **INFORMATION ABOUT THE FCC APPLICATION FEE AND VEC FILED APPLICATIONS**

It's been three months since the FCC application fee was implemented on April 19, 2022. Here's what we know so far :

1. **MAKE SURE EXAMINEES UNDERSTAND THEY MUST PAY WITHIN 10 DAYS.** Examinees do NOT have to wait for the email from the FCC to pay the fee. As soon as an the application file number is issued by the FCC, they can pay by logging into the **CORES Payer FRN System** (<https://apps.fcc.gov/cores/paymentFrnLogin.do>) (easier to use but only temporarily available) or the CORES FRN Registration system (**CORES - Login** : <https://apps.fcc.gov/cores/userLogin.do>). Application File Number search using an **FRN : FCC Application File Number Search** (<https://wireless2.fcc.gov/UlsApp/ApplicationSearch/searchAppl.jsp?fromRefine=Y>). CORES payment system background information and instructions : **Information** (<https://www.fcc.gov/licensing-databases/fees/cores-payment-system>). CORES step-by-step payment instructions : **FCC Application Fee Instructions** (<https://www.fcc.gov/wireless/support/knowledge-base/universal-licensing-system-uls-resources/payment-process-uls>).
2. The FCC help center stated there is a known issue with individuals paying the \$35 application fee via a smartphone or tablet. This is not a new issue and they haven't been able to help troubleshoot the issue at the support center. Encourage candidates to login and pay the FCC application fee from a computer.
3. Examinees should NOT amend any applications that a VEC submits on their behalf, especially NEW license applications. Amending VEC filed applications will cause the application to be dismissed without action in the FCC system and potentially require the applicant to pay another \$35 fee. If there is a minor mistake on the application, either call us and we can correct and resubmit the application, or the individual can pay the fee, be issued the call sign, and then log back in and make corrections.
4. Individuals should review their application BEFORE paying the fee. If there is a major error on the application, such as the licensee's name or license class earned is incorrect, or the answer to the felony question is wrong, DO NOT PAY the fee. Call the VEC immediately.
5. When in doubt, call the VEC! Even if you think you shouldn't bother us with your question, call us anyway.
6. Distribute these instructions to candidates as needed and refer them to our **FCC application fee** (<https://www.arrl.org/fcc-application-fee>) webpage for information and instructions.

#### **WORD TO THE WISE**

##### **Galvanic Corrosion**

**When two dissimilar metals are in contact, corrosion may occur due to differing electrode potentials of the metals. Metals are ranked according to their electrode potentials, the more "negative" of two metals will usually be the one to be corroded, if smaller in area than the more "positive." Radio towers and antennas are usually constructed of metal, and care must be taken when using fasteners, clamps, and hardware to ensure compatibility between metals that are in direct contact. The environment also has a large influence on corrosion - for example moist versus wet, and fresh versus salt water. ARRL's website has an article on galvanic corrosion that may inform your choices.**

## ***Book News***

*By Chris Prioli, AD2CS*

### **Grounding and Bonding for the Radio Amateur, 2<sup>nd</sup> Edition**

Author : H. Ward Silver, N0AX

Published by ARRL, Inc.

ISBN 978-1625951496

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176 pages

This month's installment of Book News is well-timed, especially in light of the recent publication in QST of an article detailing our Clubhouse grounding project and the fact that we are in the middle of the summer thunderstorm season. I chose this book specifically for these reasons.

This volume is a rework of the 2017 book of the same name, with expansion in several pertinent areas as well as some all-new graphics that have been included. Every ham should at the very least be aware of the need for proper grounding - both safety grounding and RF grounding - as well as the need for adequate lightning protection and equipment bonding. Let's face it - our radio equipment is not inexpensive, so any investment in proper grounding and bonding is an investment well made.

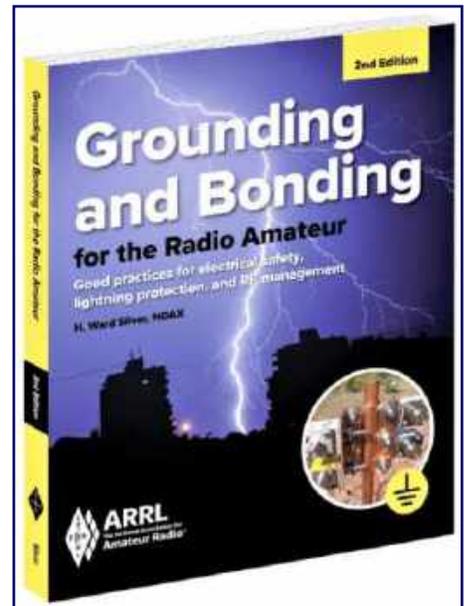
The author goes into some detail about the physics involved, and as a result he may lose some readers. However, if you can make it past the technical stuff, you can get down to the nuts and bolts of protecting yourself and your equipment.

It is my understanding that our own **Ron Block, NR2B** was a contributor to this work. That alone should make it well worth reading. As you probably already know, Ron is the author of the previously-mentioned QST article and is an expert in this area in his own right.

The book is well laid out, and covers topics such as:

- AC safety
- Lightning protection
- RF management

The reasons behind the guidelines provided are well-explained, and the author does a great job of squashing some of the various myths that abound in regards to his topics. This book belongs in the library of every licensed amateur operator, and in fact there are a couple of copies in the Clubhouse library. Borrow one to get a head start while waiting for your own personal copy to arrive!



**The W1UL Ham Cram Website**

[www.ham-cram.com](http://www.ham-cram.com)

# Aerial View

**Across**

- 1. 10 kilogauss
- 6. UA parliament
- 10. Kludge
- 14. Kind of socket or tube
- 15. Ancient OA-lander
- 16. Competent
- 17. Improbable dream VHF/UHF antenna
- 20. Achy, as after an antenna project
- 21. Transceiver knob label
- 22. Part connections
- 23. Ckt.between IF and AF
- 24. Suffix with bio- or proto-
- 26. Loud speaker
- 30. Eye part
- 31. US hams do it every 10 years, usually
- 32. "That's great, friend", on CW
- 33. Be next to
- 37. What rural hams fancy themselves?
- 40. Feedline badness

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				

- 41. Baseball stats
- 42. Symbol in coax specs
- 43. Go out of your cell area
- 44. Unidirectional dipole
- 45. Where all good signals go, eventually?
- 48. Late summer contest
- 49. Tribander parts
- 50. Kind of FET
- 51. They have replaced tuning dials in modern rigs, often.
- 55. Improbable dream HF antenna
- 59. K, on phone
- 60. Elser-Mathes Cup target
- 61. Look of disdain
- 62. One meaning of V
- 63. Switch type
- 64. They deliver power

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

**Down**

- 1. Narrowest tower sections, often
- 2. EME signal
- 3. Sirius, for one
- 4. Emit coherent light
- 5. Draft pick
- 6. One's self, on CW
- 7. Ampere, for one
- 8. Lots and lots of Hz in the old days
- 9. Word to a doctor
- 10. Bugs, Roger, Peter, et. al.
- 11. Garfield's middle name
- 12. Copper often does it
- 13. Enables, as a transmitter
- 18. Kind of hunter, in radio
- 19. Word of regret
- 23. "See you \_\_\_\_ the log"
- 24. Univ. teachers
- 25. Kilo follower
- 26. Not written
- 27. W7-land city
- 28. What this puzzle is about, for short
- 29. Connectors named for their shape
- 30. Italian yagi?
- 32. One C per V
- 33. BBs, e.g.
- 34. E, to a non-ham?
- 35. Encourage
- 36. Bygone UA leader
- 38. It glows amber
- 39. Part
- 43. Sometimes causes antenna failure

- 44. Window part, where the feedline might come in
- 45. Group of trees
- 46. 5 wpm, 70 mph, etc.
- 47. Eyeball benders
- 48. Least good
- 49. Gait faster than a walk
- 50. QSLs often go via them (abbr.)
- 51. Lead-ins to P
- 52. Future ham, sometimes
- 53. Became SK
- 54. Switching semiconductors
- 56. RX spec.
- 57. Break, during a long contest, say
- 58. Sig. src.

Answers on Page 53

## 2020-2024 Element 4 Amateur Extra Class License Question Quiz

This month we start with Element 4 Amateur Extra Class license question pool. The exam is 50 questions out of a pool 620 questions. The question pool is effective from July 1, 2020 until June 30, 2024.

We begin with Subelement E1 : Commission Rules (6 exam questions out of 6 groups) (Answers on 'Last Page Calendar')

### E1A01

**Which of the following carrier frequencies is illegal for LSB AFSK emissions on the 17 meter band RTTY and data segment of 18.068 to 18.110 MHz?**

- A. 18.068 MHz
- B. 18.100 MHz
- C. 18.107 MHz
- D. 18.110 MHz

### E1A02

**When using a transceiver that displays the carrier frequency of phone signals, which of the following displayed frequencies represents the lowest frequency at which a properly adjusted LSB emission will be totally within the band?**

- A. The exact lower band edge
- B. 300 Hz above the lower band edge
- C. 1 kHz above the lower band edge
- D. 3 kHz above the lower band edge

### E1A03

**What is the maximum legal carrier frequency on the 20 meter band for transmitting USB AFSK digital signals having a 1 kHz bandwidth?**

- A. 14.070 MHz
- B. 14.100 MHz
- C. 14.149 MHz
- D. 14.349 MHz

### E1A04

**With your transceiver displaying the carrier frequency of phone signals, you hear a DX station calling CQ on 3.601 MHz LSB. Is it legal to return the call using lower sideband on the same frequency?**

- A. Yes, because the DX station initiated the contact
- B. Yes, because the displayed frequency is within the 75 meter phone band segment
- C. No, the sideband will extend beyond the edge of the phone band segment
- D. No, U.S. stations are not permitted to use phone emissions below 3.610 MHz

### E1A05

**What is the maximum power output permitted on the 60 meter band?**

- A. 50 watts PEP effective radiated power relative to an isotropic radiator
- B. 50 watts PEP effective radiated power relative to a dipole
- C. 100 watts PEP effective radiated power relative to the gain of a half-wave dipole
- D. 100 watts PEP effective radiated power relative to an isotropic radiator

*Element 4 Amateur Extra Class Quiz - Continued on page 39*

**E1A06**

**Where must the carrier frequency of a CW signal be set to comply with FCC rules for 60 meter operation?**

- A. At the lowest frequency of the channel
- B. At the center frequency of the channel
- C. At the highest frequency of the channel
- D. On any frequency where the signal's sidebands are within the channel

**E1A07**

**What is the maximum power permitted on the 2200 meter band?**

- A. 50 watts PEP
- B. 100 watts PEP
- C. 1 watt EIRP (Equivalent isotropic radiated power)
- D. 5 watts EIRP (Equivalent isotropic radiated power)

**E1A08**

**If a station in a message forwarding system inadvertently forwards a message that is in violation of FCC rules, who is primarily accountable for the rules violation?**

- A. The control operator of the packet bulletin board station
- B. The control operator of the originating station
- C. The control operators of all the stations in the system
- D. The control operators of all the stations in the system not authenticating the source from which they accept communications

**E1A09**

**What action or actions should you take if your digital message forwarding station inadvertently forwards a communication that violates FCC rules?**

- A. Discontinue forwarding the communication as soon as you become aware of it
- B. Notify the originating station that the communication does not comply with FCC rules
- C. Notify the nearest FCC Field Engineer's office
- D. All these choices are correct

**E1A10**

**If an amateur station is installed aboard a ship or aircraft, what condition must be met before the station is operated?**

- A. Its operation must be approved by the master of the ship or the pilot in command of the aircraft
- B. The amateur station operator must agree not to transmit when the main radio of the ship or aircraft is in use
- C. The amateur station must have a power supply that is completely independent of the main ship or aircraft power supply
- D. The amateur operator must have an FCC Marine or Aircraft endorsement on his or her amateur license

**E1A11**

**Which of the following describes authorization or licensing required when operating an amateur station aboard a U.S.-registered vessel in international waters?**

- A. Any amateur license with an FCC Marine or Aircraft endorsement
- B. Any FCC-issued amateur license
- C. Only General Class or higher amateur licenses
- D. An unrestricted Radiotelephone Operator Permit

**E1A12**

**What special operating frequency restrictions are imposed on slow scan TV transmissions?**

- A. None; they are allowed on all amateur frequencies
- B. They are restricted to 7.245 MHz, 14.245 MHz, 21.345 MHz, and 28.945 MHz
- C. They are restricted to phone band segments
- D. They are not permitted above 54 MHz

**E1A13**

**Who must be in physical control of the station apparatus of an amateur station aboard any vessel or craft that is documented or registered in the United States?**

- A. Only a person with an FCC Marine Radio license grant
- B. Any person holding an FCC issued amateur license or who is authorized for alien reciprocal operation
- C. Only a person named in an amateur station license grant
- D. Any person named in an amateur station license grant or a person holding an unrestricted Radiotelephone Operator Permit

**E1A14**

**Except in some parts of Alaska, what is the maximum power permitted on the 630 meter band?**

- A. 50 watts PEP
- B. 100 watts PEP
- C. 1 watt EIRP
- D. 5 watts EIRP



# Gloucester County Amateur Radio Club General Membership Meeting Minutes Wednesday, July 6, 2022



The meeting opened @ 1933 Hours by **President Tony Starr K3TS** with the Pledge Allegiance to the Flag.

## ATTENDANCE :

- In person : 16
- ZOOM : 15

**GUESTS :** None

**NEW MEMBERS :** None

The minutes from the June General Meeting, as published in The Crosstalk, were approved.

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

- Income : \$4,458
- Expenses : \$3,093
- Net Gain : \$1,365

Alan is looking to collect any outstanding Field Day receipts. The Treasurer's Report was accepted.

**CLUBHOUSE :** **Alan Arrison KB2AYU** noted that the Clubhouse was in good shape following Field Day and had been kept clean thanks to the efforts of **Chris Prioli AD2CS** and his helpers. Work on the VHF room will resume shortly. Alan finished spray painting the new HF tower. The next step will be to make new cables for raising and lowering the tower.

**CLUB NETS :** **Steve Farney W2SEF** reported an average of 11 check-ins to the Tuesday Noon 2 Meter Nets and an average of 13 to the Thursday Evening 2 Meter Nets. **Jim Clark KA2OSV** reported 4 check-ins to the most recent 10 Meter Net and 7 the week before that.

**DX and CONTEST COMMITTEE :** **Tony Starr K3TS** said that the bands were open for DX and he was called by DX stations while operating K2I during the 13 Colonies event. The IARU HF Championship event is coming up this weekend.

**REPEATERS :** **Alan Arrison KB2AYU** is gathering connectors and cables to replace the questionable jumpers at the repeater site later this month. The 70 CM repeater is still undergoing bench testing.

**EDUCATION :** **Chris Prioli AD2CS** noted that the licensing classes are taking a break for the summer, but he has been receiving email expressing interest. The class schedule has been sent to ARRL but not yet posted on that website.

**FIELD DAY :** **Tony Starr K3TS** summarized the recent Field Day as having good food, good weather, good fun and no injuries or equipment damage. The number of QSOs seemed lower than last year, possible because of the 100-watt power restriction and the possibility that more people were operating from their home stations. **Jim Wright N2GXJ** will provide a more complete Field Day summary next month but com-

*July 2022 General Membership Meeting Minutes - Continued on page 42*

mented that W2MMD worked all 50 states plus the ISS!

Tony presented **Chris Prioli AD2CS** with a Field Day pin and notebook in recognition of the excellent work Chris has done to support Field Day and CrossTalk while **Jeff Garth WB2ZBN** was under the weather.

**HAMFEST : Tony Starr K3TS** receive an email from **Sheldon Parker K2MEN** stating that planning is going well.

**TECHNICAL COMMITTEE : Jonathan Pearce WB2MNF** said :

- Instead of Tech Saturday, next Saturday will be a Work Saturday (if weather permits)
- In particular, the Clubhouse steps and shed need repainting
- The topic for the August Tech Saturday may be How to Use a Nano VNA

**OLD BUSINESS :**

**Jonathan Pearce WB2MNF** provided grant application updates :

- An application was submitted to the ARRL foundation (as a 501(c)4) to fund a replacement VHF tower and antennas (things located OUTSIDE of the Clubhouse)
- An application to purchase VHF equipment was submitted in April to the ARDC by the Gloucester County Amateur Radio Foundation, the 501(c)(3) affiliate of the Club. This now has been approved and a check for \$11,148 was received
- These funds are intended to purchase a FLEX 6400, power amplifiers and preamplifiers for VHF and UHF work

**NEW BUSINESS :**

**Ron Block NR2B** provided the first reading of a proposed amendment to the GCARC Constitution, which would elevate the Education Committee from an ad hoc status to become a permanent standing committee. This proposed amendment has been published already in The CrossTalk and will be read again at the next General Membership Meeting prior to voting.

**Jim Clark KA2OSV** asked if there was any interest in having a Club Picnic this year. It was decided to target the first Sunday in August and Jim will poll the membership using the Club's email reflector to gauge the level of interest and find out who is available to organize this event.

**MISCELLANEOUS :**

**Beth Barnish KB2EAL** asked about the lease agreement between GCARC and 4H. **Tony Starr K3TS** pointed out that the lease is good for another 15 years so no action is needed at this time.

There is no formal program tonight but we will have PIZZA following the meeting.

**President Tony Starr K3TS closed the meeting @ 2007 Hours.**

**Respectfully Submitted,  
Karl Frank W2KBF,  
GCARC Recording Secretary**

# Gloucester County Amateur Radio Club

## Board of Directors Meeting Minutes

### Wednesday, July 20, 2022



Meeting opened @ 1901 Hours by President Tony Starr K3TS.

#### ATTENDANCE :

- President Tony Starr K3TS
- Vice President Jonathan Pearce WB2MNF
- Treasurer Alan Arrison KB2AYU
- Recording Secretary Karl Frank W2KBF
- Corresponding Secretary Ron Block NR2B
- Director Jim Clark KA2OSV
- Director Chuck Colabrese WA2TML (via ZOOM)
- Director Herb Dyer KT2Y
- Director Jeff Garth WB2ZBN (via ZOOM)
- Director Bill Price NJ2S
- Trustee Jim Wright N2GXJ
- Member Frank Romeo N3PUU
- Member John O'Connell K2QA
- Member Chris Prioli AD2CS
- Member Michael Resnick N2WOQ

**MINUTES :** The minutes of the June BoD Meeting were approved.

#### NEW MEMBER APPLICATIONS :

The following application was received and approved :

- **Stanley Slachetka WA2JRZ**, who has an Advanced Class license and lives in Woodbury Heights, NJ.

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

- Income : \$4,510
- Expenses : \$3,088
- Net gain : \$1,421

Total in all accounts includes the Rebuilding Fund. The Treasurer's Report was accepted.

**CLUBHOUSE :** Alan Arrison KB2AYU reported that several new lift cables have been made for the new HF tower. Also a 10-foot mast and new thrust bearing have been picked up. We hope to have the HF tower up by the Hamfest at the latest. The shed was painted during the work party last weekend but the back steps were wet and cannot be painted until they dry out.

**CLUB NETS :** Chris Prioli AD2CS said there were 17 check-ins to the most recent Tuesday Noon Net and 10 for the Thursday Evening Net. Jim Clark KA2OSV had 4 check-ins for the most recent 10 Meter Net.

**DX and CONTESTS :** Tony Starr K3TS noted that solar flux has been up to 174 recently and currently is around 160. The CW NAQP will take place August 6 and the Phone NAQP on August 20.

*July 2022 Board of Directors Meeting Minutes - Continued on page 44*

**REPEATERS : Tony Starr K3TS** picked up some 3/8" Andrew heliac that can be used as a jumper for the 2 Meter repeater plus a 40 foot and 80 foot section. **Alan Arrison KB2AYU** and **Frank Romeo N3PUU** noted that a visit to the repeater site, to restore the 440 repeater, will depend upon both cooler weather and should be coordinated with **John Zaruba K2ZA** because software updates are needed.

**EDUCATION COMMITTEE : Chris Prioli AD2CS** announced that future licensing classes will cost \$30. Also, the Digi Net needs suggestions for future topics so **Jeff Garth WB2ZBN** was asked to place a note in the CrossTalk.

**TECHNICAL COMMITTEE : Jonathan Pearce WB2MNF** said the WinLink RMS has been getting connections on both 2 and 40 Meters. The 2 Meter station is being upgraded to support Packet in addition to VARA FM. The QSL card from the ARISS contact during Field Day has been framed and is mounted on the Clubhouse wall. The C-band satellite dish that had been offered to the Club was accidentally destroyed before we took possession so we are looking for another one.

**FIELD DAY : Jonathan Pearce WB2MNF** will ask Field Day Chairman **Vinnie Sallustio N4NYY** to provide a summary of the recent Field Day at the August 3<sup>rd</sup> General Membership Meeting. Band Captains will be asked to provide brief comments and **Jim Wright N2GXJ** will announce our claimed score. **Ron Block NR2B** has been in touch with 4H Property Manager **Jennifer Coles** and commented that the 4H had no problems with the way Field Day was conducted this year.

**HAMFEST : Bill Price NJ2S** has been in touch with Boy Scout Troop 9 (West Deptford), which is handling the food, and confirms that they will arrive the evening before the Hamfest to begin their setup. **Ron Block NR2B** will check with **Jennifer Coles** to make certain that it is OK for setup to begin at 6 PM on Saturday, September 10<sup>th</sup> and if the Clubhouse can be left open overnight for bathroom access. As discussed previously, the ticket gate will be moved forward as the single point for purchase of tickets. Club members are needed to help run the Hamfest and those that volunteer will be offered free admission. Any other perks are to be decided by Hamfest Chair **Sheldon Parker K2MEN**. **Ron Block NR2B** will provide passes to our guest speakers.

**Chuck Colabrese WA2TML** said the VE session will start at 9 AM in the Clubhouse and may run until 11 AM and possibly later. Following the VE session **Jonathan Pearce WB2MNF** would like to offer tours of the Clubhouse at Noon to show, among other things, progress with the HF room and Grounding Project.

**OLD BUSINESS : Ron Block NR2B** presented a proposal that would define the boundaries of the 2-acre area that GCARC leases from the 4H. However, the BoD decided against adopting this proposal. Ron has contacted the 4H Property Manager regarding the possibility of having the 4H take over grass mowing and is awaiting a response.

**NEW BUSINESS : Herb Dyer KT2Y** would like GCARC members to know about the MS150 City to Shore event on September 24 and 25 but the email reflector has been rejecting his email. He forwarded the information to **Jeff Garth WB2ZBN** to disseminate to the Club members. **Jim Clark KA2OSV** received only 6 positive responses to holding a Club picnic, and none have volunteered to organize the event. Jim will send out an email notice cancelling this event.

In view of his work to support the Club, **Chris Prioli AD2CS** was nominated by **Jim Clark KA2OSV** to receive a Certificate of Appreciation. This was approved by vote.

Chris proposed to learn more about the skill sets present among Club members that may be useful to the Club. **Tony Starr K3TS** approved this idea so Chris will send a survey via the Club email reflector.

**The meeting was adjourned @ 2046 Hours.**

**Respectfully Submitted,  
Karl Frank W2KBF,  
GCARC Recording Secretary**

**Our Clubhouse Groundhog out for a stroll!  
Should I list him as an Honorary or a Life Member?**



**August 2022 Word Search : Antenna Terms**  
**By Chris Prioli, AD2CS**

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

<b>ANALYZER</b>	<b>DISH</b>	<b>MARCONI</b>	<b>TEE</b>
<b>ANGULAR</b>	<b>EAVE</b>	<b>MAST</b>	<b>TOWER</b>
<b>ATTIC</b>	<b>ENDFED</b>	<b>MFJ</b>	<b>TRAP</b>
<b>BARE</b>	<b>FAN</b>	<b>NORTH</b>	<b>TRIBAND</b>
<b>BEAM</b>	<b>GUY</b>	<b>PERIODIC</b>	<b>TUNER</b>
<b>BEVERAGE</b>	<b>HORIZONTAL</b>	<b>RANDOMWIRE</b>	<b>VEE</b>
<b>CENTERFED</b>	<b>HUSTLER</b>	<b>ROOF</b>	<b>VERTICAL</b>
<b>CHIMNEY</b>	<b>INVERTED VEE</b>	<b>ROPE</b>	<b>VNA</b>
<b>COBWEB</b>	<b>LOGARITHMIC</b>	<b>SLOPER</b>	<b>WEST</b>
<b>DIAMOND</b>	<b>LONGWIRE</b>	<b>STAKE</b>	<b>WIRE</b>
<b>DIPOLE</b>	<b>LOOP</b>	<b>SWR</b>	<b>YAGI</b>

Answers on page 53

**IARU HF World Championship  
July 9, 2022**

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

**Class : SOAB(A)CW HP**  
**QTH : SNJ**  
**Operating Time (hrs) : 8**  
**Location : USA**

**Summary :**

Band	CW Qs	Ph Qs	Zones	HQ Mults
80 :	21	0	6	6
40 :	174	0	21	29
20 :	337	0	27	34
15 :	75	0	22	21
<hr/>				
<b>Total :</b>	<b>607</b>	<b>0</b>	<b>76</b>	<b>90</b>
<b>Total Score : 324,198</b>				

**Club : Frankford Radio Club** 23

**Comments :**

*Rig: FTDX-9000D/OM Power 2000A+  
 Antennas : all wires  
 160 L (came down in storm)  
 80m dipole @ 95ft  
 40m dipole @ 90ft  
 20m delta loop @ 70ft  
 10/15m homebrew fan dipole @ 65ft*

*Operating time 8hrs*

*Gee, that was fun. This is my best score from home, and I rarely have much time for this contest, but I had more time this year than I thought I would. Great to hear the bands in such great condx, with the flux around 130 all weekend. Highlight was getting a number of Pacific zones on 40m, and getting 7Q5RU in the log on 20. I broke 600Qs, and there were plenty of HQ stations to work. As I like to promote CW, I never operate SSB in this contest.*

**Contest : IARU**

Band	QSOs	Pts	ITU	HQ	Pt/Q
3.5	21	41	6	6	2.0
7	174	438	21	29	2.5
14	337	1,239	27	34	3.7
21	75	235	22	21	3.1
<b>Total</b>	<b>607</b>	<b>1,953</b>	<b>76</b>	<b>90</b>	<b>3.2</b>

*Score : 324,198  
 1 Mult = 3.7 Q's*

*73 Darrell AB2E*

**IARU HF World Championship  
July 9, 2022**

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

**Class : SOAB(A)CW HP**  
**QTH : SNJ**  
**Operating Time (hrs) :**  
**Location : USA**

**Summary :**

Band	CW Qs	Ph Qs	Zones	HQ Mults
40 :	53	0	17	25
20 :	57	0	25	30
15 :	67	0	21	27
<hr/>				
<b>Total :</b>	<b>177</b>	<b>0</b>	<b>63</b>	<b>82</b>
<b>Total Score : 73,225</b>				

**Club : Frankford Radio Club** 24

**Comments :**

*A limited effort as time permitted, but wow, what a blast! Propagation was amazing at times, and my usually high local noise levels were surprisingly low. Worked all over Asia on 15m and Europe was pounding in at 20 dB over S9 late into Saturday evening. I have only been a serious DX contester since 2016, but I am starting to see what I missed during the first 40 years that I was licensed. Oh well... 73 to all.*

*de K3TS*





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

Philadelphia/Mt Holly Skywarn : [www.weather.gov/phi/skywarn](http://www.weather.gov/phi/skywarn)

State College, PA Skywarn : [www.weather.gov/ctp/skywarn](http://www.weather.gov/ctp/skywarn)

Pittsburgh, PA Skywarn : [www.weather.gov/pbz/skywarn](http://www.weather.gov/pbz/skywarn)

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

**ADVANCED SKYWARN TRAINING**

July 26 at 6pm  
**SEVERE STORMS**

Aug 9 at 6pm  
**RADAR**

**REGISTER:** [weather.gov/ctp/SpotterTalks](http://weather.gov/ctp/SpotterTalks)

Advanced Skywarn Training : Tuesday, July 26, 2022 at 1800 to 2030 Hours : Severe Storms  
<https://attendee.gotowebinar.com/register/8226336416265957131>

Advanced Skywarn Training : Tuesday, August 9, 2022 at 1800 to 2030 Hours : Radar  
<https://attendee.gotowebinar.com/register/8416896075010770446>

### OPERATING TIP

#### A Straight Key Can Be a Quick Way through a Pileup

While competing for a contact with other stations in a pileup, you want your signal to be distinctive, to stand out, and be easier to copy than other stations. There are a number of ways to achieve this and the best one depends on the operator and pileup. In a receiver pass band of computer-generated CW, artisanal hand-sent CW can sometimes be enough of a differentiator to make it through before others. Remember, the objective is for the other operator to copy your signal quickly and effectively, so make sure you're sending excellent well-formed elements.

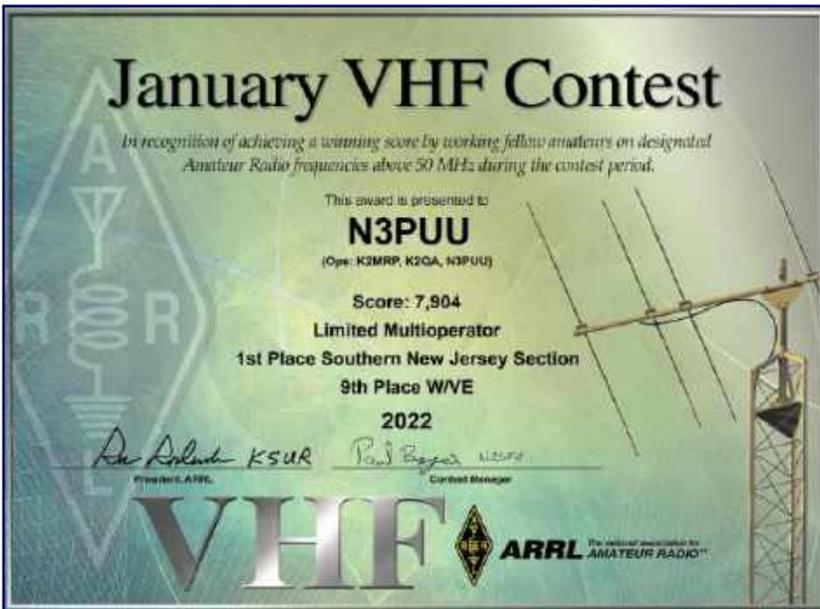
To be added to the DX HONOR ROLL,  
Please contact Ernest Kraus, KD2EAV  
meanddelcanotc@verzion.net



Name/Callsign	DXCC
Bill Grim, W0MHK	352
Dave Strout, W2YC	349
Darrell Neron, AB2E	328
Ray Martin, W2RM	270
John Hill, W2HUV	252
Ken Denson, WB2P	248
<b>Vinnie Sallustio, N4NYY</b>	<b>231</b>
Tony Starr, K3TS	211
Dennis Sandole, K2SE	204
<b>Jim Wright, N2GXJ</b>	<b>193</b>
Sheldon Parker, K2MEN	176
Matt Wilson K2MFW	161
Christopher Wawak, KC2IEB	141
<b>Howard Marder, WA2IBZ</b>	<b>136</b>
Eric Morris, N2BRJ	127
<b>Phil Nunzio, WA3RGY</b>	<b>123</b>
Bart Kleczynski, AC2PT	106
Chuck Capasso, WB2PGE	103
Rich Subers, W2RHS	102
Harry Strahlendorf Jr W3DNQ	87
Curt Myers, K2CWM	80
Jim Clark, KA2OSV	68
Lee Marino, N2LAM	35
<b>Updated As Of 07/24/2022</b>	



Happy Birthday  
US Coast Guard  
August 4, 1790



## August Birthdays

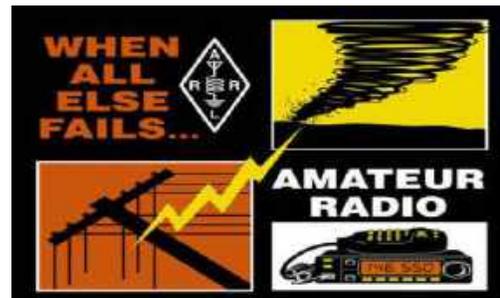
Congratulations to our members who are celebrating a birthday this month

David Christian, KB3VEO  
David Danichkin, KD2UXC  
Brian Haines, KD2VDQ  
Paul Hart, KD2WKL  
Harry Jackson, WB2GSF (President 1982)  
Gary Kinney, KC2ULS  
Charles Lessley, KC3TZR  
Daniel McCormick III, KD2TUS  
Curtis Myers, K2CWM  
Jonathan Pearce, WB2MNF  
Adam Sigmund  
Courtney Smith, KD2SPJ  
Harry Strahlendorf Jr, W3DNQ  
Leonid Surnin, W2/UT5ZF  
Brett Waller, K2BKW  
John White III, KD2RPX  
Carl Wittig, KD2YIF

## In Memoriam - August Birthdays

Silent Keys :

Paul Bergstrom, N2GIB  
James Bray Sr, N2AKI  
Edward Bubelis, N2LCN  
Vernon Byrd, N2DRD  
Edward Egolf, WA2ZMS  
Charles Emmel Sr, KT2ZZ  
Steven Fidler III, N2GVR  
Richard Fitch, WA2YLC  
Thomas Gordon Sr, KB2GI (President 1985)  
Seth Horen, K1LOM  
John Koch Jr, K2CR  
John Lachenmayer, KB2RGX  
James Mollica Sr, K2OWE  
Bruce Painter, N2ASN  
Charles Pennington, K3NMF  
Salvatore Scibilia, WA2LKF  
Donald Smith, WB2ZJF  
Rev. James Thompson III, N2EDK  
Harry Wolf, KC2THV



## 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 September 2022 issue : Saturday, August 20, 2022

Club Website [www.w2mmd.org](http://www.w2mmd.org)

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

# August 2022 Contest Calendar

WA7BNM Contest Calendar : [www.contestcalendar.com](http://www.contestcalendar.com)

## August 2022

+ K1USN Slow Speed Test	0000Z-0100Z, Aug 1
+ ICWC Medium Speed Test	1300Z-1400Z, Aug 1
+ OK1WC Memorial	1630Z-1729Z, Aug 1
+ ICWC Medium Speed Test	1900Z-2000Z, Aug 1
+ ARS Spartan Sprint	0100Z-0300Z, Aug 2
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Aug 2
+ ICWC Medium Speed Test	0300Z-0400Z, Aug 2
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 2
+ Phone Weekly Test	0230Z-0300Z, Aug 3
+ A1Club AWT	1200Z-1300Z, Aug 3
+ CWops Test	1300Z-1400Z, Aug 3
+ Mini-Test 40	1700Z-1759Z, Aug 3
+ Mini-Test 80	1800Z-1859Z, Aug 3
+ CWops Test	1900Z-2000Z, Aug 3
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Aug 4 and 0200Z-0300Z, Aug 5
+ CWops Test	0300Z-0400Z, Aug 4
+ CWops Test	0700Z-0800Z, Aug 4
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 4
+ NRAU 10m Activity Contest	1700Z-1800Z, Aug 4 (CW) and 1800Z-1900Z, Aug 4 (SSB) and 1900Z-2000Z, Aug 4 (FM) and 2000Z-2100Z, Aug 4 (Dig)
+ SKCC Sprint Europe	1900Z-2100Z, Aug 4
+ QRP Fox Hunt	0100Z-0230Z, Aug 5
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 5
+ NCCC Sprint	0230Z-0300Z, Aug 5
+ K1USN Slow Speed Test	2000Z-2100Z, Aug 5
+ Batavia FT8 Contest	0000Z, Aug 6 to 2359Z, Aug 7
+ 10-10 Int. Summer Contest, SSB	0001Z, Aug 6 to 2359Z, Aug 7
+ European HF Championship	<b>Cancelled for 2022</b>
+ NRRL MGM Weekend Contest	1400Z, Aug 6 to 1400Z, Aug 7
+ ARRL 222 MHz and Up Distance Contest	1800Z, Aug 6 to 1800Z, Aug 7
+ North American QSO Party, CW	1800Z, Aug 6 to 0559Z, Aug 7
+ SARL HF Phone Contest	1400Z-1700Z, Aug 7
+ K1USN Slow Speed Test	0000Z-0100Z, Aug 8
+ ICWC Medium Speed Test	1300Z-1400Z, Aug 8
+ OK1WC Memorial	1630Z-1729Z, Aug 8
+ ICWC Medium Speed Test	1900Z-2000Z, Aug 8
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Aug 9
+ ICWC Medium Speed Test	0300Z-0400Z, Aug 9
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 9
+ NAQCC CW Sprint	0030Z-0230Z, Aug 10
+ Phone Weekly Test	0230Z-0300Z, Aug 10
+ A1Club AWT	1200Z-1300Z, Aug 10
+ CWops Test	1300Z-1400Z, Aug 10
+ Mini-Test 40	1700Z-1759Z, Aug 10
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Aug 10
+ Mini-Test 80	1800Z-1859Z, Aug 10
+ CWops Test	1900Z-2000Z, Aug 10
+ CWops Test	0300Z-0400Z, Aug 11
+ CWops Test	0700Z-0800Z, Aug 11
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 11
+ EACW Meeting	1900Z-2000Z, Aug 11
+ QRP Fox Hunt	0100Z-0230Z, Aug 12
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 12
+ NCCC Sprint	0230Z-0300Z, Aug 12
+ MMonVHF/DUBUS 144 MHz Meteorscatter Sprint Contest	1500Z, Aug 12 to 1459Z, Aug 14
+ K1USN Slow Speed Test	2000Z-2100Z, Aug 12
+ WAE DX Contest, CW	0000Z, Aug 13 to 2359Z, Aug 14
+ SARL Youth Sprint	1200Z-1300Z, Aug 13
+ Keyman's Club of Japan Contest	1200Z, Aug 13 to 1200Z, Aug 14
+ SKCC Weekend Sprintathon	1200Z, Aug 13 to 2400Z, Aug 14
+ Kentucky State Parks on the Air	1400Z-2200Z, Aug 13
+ Maryland-DC QSO Party	1400Z, Aug 13 to 0400Z, Aug 14
+ FISTS Saturday Sprint	1600Z-1800Z, Aug 13
+ 50 MHz Fall Sprint	2300Z, Aug 13 to 0300Z, Aug 14
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Aug 15
+ K1USN Slow Speed Test	0000Z-0100Z, Aug 15
+ ICWC Medium Speed Test	1300Z-1400Z, Aug 15
+ OK1WC Memorial	1630Z-1729Z, Aug 15
+ ICWC Medium Speed Test	1900Z-2000Z, Aug 15
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Aug 16
+ ICWC Medium Speed Test	0300Z-0400Z, Aug 16
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 16
+ Phone Weekly Test	0230Z-0300Z, Aug 17
+ A1Club AWT	1200Z-1300Z, Aug 17

August 2022 Contest Calendar - Continued on page 52

# August 2022 Contest Calendar

## WA7BNM Contest Calendar : [www.contestcalendar.com](http://www.contestcalendar.com)

August 2022 Contest Calendar - Continued from page 51

+ CWops Test	1300Z-1400Z, Aug 17
+ Mini-Test 40	1700Z-1759Z, Aug 17
+ VHF-UHF FT8 Activity Contest	1700Z-2000Z, Aug 17
+ Mini-Test 80	1800Z-1859Z, Aug 17
+ CWops Test	1900Z-2000Z, Aug 17
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Aug 18 and 0200Z-0300Z, Aug 19
+ CWops Test	0300Z-0400Z, Aug 18
+ CWops Test	0700Z-0800Z, Aug 18
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 18
+ NTC QSO Party	1900Z-2000Z, Aug 18
+ QRP Fox Hunt	0100Z-0230Z, Aug 19
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 19
+ NCCC Sprint	0230Z-0300Z, Aug 19
+ K1USN Slow Speed Test	2000Z-2100Z, Aug 19
+ SARTG WW RTTY Contest	0000Z-0800Z, Aug 20 and 1600Z-2400Z, Aug 20 and 0800Z-1600Z, Aug 21
+ ARRL 10 GHz and Up Contest	0600 local, Aug 20 to 2400 local, Aug 21
+ Russian District Award Contest	0800Z, Aug 20 to 0800Z, Aug 21
+ Feld Hell Sprint	1600Z-1759Z, Aug 20
+ North American QSO Party, SSB	1800Z, Aug 20 to 0559Z, Aug 21
+ CVA DX Contest, CW	2100Z, Aug 20 to 2100Z, Aug 21
+ SARL HF Digital Contest	1400Z-1700Z, Aug 21
+ NJQRP Skeeter Hunt	1700Z-2100Z, Aug 21
+ ARRL Rookie Roundup, RTTY	1800Z-2359Z, Aug 21
+ FISTS Sunday Sprint	2100Z-2300Z, Aug 21
+ Run for the Bacon QRP Contest	2300Z, Aug 21 to 0100Z, Aug 22
+ K1USN Slow Speed Test	0000Z-0100Z, Aug 22
+ ICWC Medium Speed Test	1300Z-1400Z, Aug 22
+ OK1WC Memorial	1630Z-1729Z, Aug 22
+ ICWC Medium Speed Test	1900Z-2000Z, Aug 22
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Aug 23
+ ICWC Medium Speed Test	0300Z-0400Z, Aug 23
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 23
+ SKCC Sprint	0000Z-0200Z, Aug 24
+ Phone Weekly Test	0230Z-0300Z, Aug 24
+ A1Club AWT	1200Z-1300Z, Aug 24
+ CWops Test	1300Z-1400Z, Aug 24
+ Mini-Test 40	1700Z-1759Z, Aug 24
+ Mini-Test 80	1800Z-1859Z, Aug 24
+ CWops Test	1900Z-2000Z, Aug 24
+ CWops Test	0300Z-0400Z, Aug 25
+ CWops Test	0700Z-0800Z, Aug 25
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 25
+ QRP Fox Hunt	0100Z-0230Z, Aug 26
+ NCCC RTTY Sprint	0145Z-0215Z, Aug 26
+ NCCC Sprint	0230Z-0300Z, Aug 26
+ K1USN Slow Speed Test	2000Z-2100Z, Aug 26
+ RTTYOps WW DX RTTY Contest	2200Z, Aug 26 to 1200Z, Aug 27 and 1200Z-2359Z, Aug 28
+ ARRL EME Contest	0000Z, Aug 27 to 2359Z, Aug 28
+ Hawaii QSO Party	0400Z, Aug 27 to 0400Z, Aug 29
+ ALARA Contest	0600Z Aug 27 to 0559Z, Aug 28
+ World Wide Digi DX Contest	1200Z, Aug 27 to 1200Z, Aug 28
+ W/VE Islands QSO Party	1200Z, Aug 27 to 0300Z, Aug 28
+ YO DX HF Contest	1200Z, Aug 27 to 1200Z, Aug 28
+ Kansas QSO Party	1400Z, Aug 27 to 0200Z, Aug 28 and 1400Z-2000Z, Aug 28
+ Ohio QSO Party	1600Z, Aug 27 to 0400Z, Aug 28
+ CVA DX Contest, SSB	2100Z, Aug 27 to 2100Z, Aug 28
+ SARL HF CW Contest	1400Z-1700Z, Aug 28
+ K1USN Slow Speed Test	0000Z-0100Z, Aug 29
+ ICWC Medium Speed Test	1300Z-1400Z, Aug 29
+ QCX Challenge	1300Z-1400Z, Aug 29
+ OK1WC Memorial	1630Z-1729Z, Aug 29
+ ICWC Medium Speed Test	1900Z-2000Z, Aug 29
+ QCX Challenge	1900Z-2000Z, Aug 29
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Aug 30
+ QCX Challenge	0300Z-0400Z, Aug 30
+ ICWC Medium Speed Test	0300Z-0400Z, Aug 30
+ RTTYOPS Weeksprint	1700Z-1900Z, Aug 30
+ Phone Weekly Test	0230Z-0300Z, Aug 31
+ A1Club AWT	1200Z-1300Z, Aug 31
+ CWops Test	1300Z-1400Z, Aug 31
+ Mini-Test 40	1700Z-1759Z, Aug 31
+ Mini-Test 80	1800Z-1859Z, Aug 31
+ CWops Test	1900Z-2000Z, Aug 31

## Word Search Answers From Page 46



**Crossword Puzzle Answers  
From Page 37**

## 2022 Club Committees

Standing Committees	Committee Chairs
Budget Constitution & By-Laws Field Day Hamfest Health, Welfare, & Silent Keys Hospitality Membership Membership Badges Nominations Publicity Repeaters W2MMD Clubhouse Site	Al Arrison, KB2AYU Ron Block, NR2B Vinnie Sallustio, N4NYY Sheldon Parker, K2MEN and Bill Price, NJ2S Bill Price, NJ2S Jeff Garth, WB2ZBN Bob Fields, KC6AOH Chuck Colabrese, WA2TML Tony Starr, K3TS Bob Fields, KC6AOH Herb Dyer, KT2Y Al Arrison, KB2AYU
Activity Committees	Committee Chairs
<i>Awards &amp; Certificates</i> Club Publications & Historian Contests <i>DX</i> Education <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 Meetings & Tech Saturdays Radio Nets Technical W2MMD License Trustee W2MMD Special Event Station	<i>Open Chair</i> Jeff Garth, WB2ZBN Tony Starr, K3TS <i>Open Chair</i> Chris Prioli, AD2CS <i>Open Chair</i> Jim Wright, N2GXJ Bob Keogh, KD2NEC <i>Open Chair</i> Gary Reed, N2QEE Jeff Garth, WB2ZBN Jon Pearce, WB2MNF 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 (TEMPORARILY OFF AIR)**

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 “DigiNet”**

First / Third Mondays Of Every Month  
@ 2000 Hours

2 Meters & EchoLink

### **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, August 3, 2022**

**1930 Hours**

**Live & In-Person**

**Pfeiffer Community Center**

**Simulcast Live on ZOOM**

### *Board of Directors Meeting*

**Wednesday, August 17, 2022**

**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**