



CrossTalk

We Will Rebuild Back Better!

Issue 63:05 63 Years Of Service To Our Community May 2022

2022 Club Officers

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

Board of Directors - 3 year term

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

This Month's Calendar

General Membership Meeting
 Wednesday, May 4, 2022 @ 1930 Hours
In-Person & ZOOM - Pfeiffer Community Center

Tech Saturday Forum
 Saturday, May 7, 2022 @ 0900 Hours
W2MMD Clubhouse

The "DigiNet"
 Monday, May 2, 2022 @ 1900 Hours
 2 Meter & EchoLink

License Testing Session
 Thursday, May 12, 2022 @ 1900 Hours
W2MMD Clubhouse

Board of Directors Meeting
 Wednesday, May 18, 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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President's Message



Greetings to all, and I hope that all of you are doing well as springtime finally prevails over what seemed like a long winter, at least to me. Now it is time to get those antenna projects under way and start doing some station maintenance. I am glad to report that we are making great progress with the second phase of our W2MMD station grounding upgrades and re-modeling. The VHF station is currently torn down as those upgrades are being performed. And soon we will be putting up our new tower and HF antenna. Lots of great things are happening at our club station, and we can always use some extra help, so if you have a free Saturday, by all means, stop by and lend a hand. In the mean time, our HF station is operational for both remote and local access, with just the temporary antennas, so be sure to check it out, especially if you don't have an HF station at home. Access to our club station is just one of the great benefits of membership in GCARC.

Our licensing classes, round two, are coming along nicely, under the direction of Education Chairman Chris, AD2CS. A total of 28 students are enrolled in the three classes, which has again resulted in a spike in new member applications, thanks to the active recruiting efforts of Chris. Our membership levels are approaching an all-time high, which is really encouraging. Hopefully this will translate into lots of new participation in our larger events like Field Day and the Hamfest. Speaking of Field Day, as of this writing it is a mere 8 weeks away. FD Chairman Vinnie, N4NYY, has all the planning well at hand, and has made a plea for more operators. You don't need a lot of experience, just the will to get on the air and make contacts. Those of us who are old hands at this will be there to show you what to do and make sure you get off on the right foot. Operating on Field Day is one of the most fun things a ham can do, and anyone who has not experienced it really needs to come out and give it a try.

On the subject of operating, as I write this, the Solar Flux Index is now 160. How is this significant? Well, since getting back on the air in January of 2016, I have not seen it anywhere near this high. In fact, for a couple of years, it rarely went above 80. What this means is that Cycle 25 is off to a great start, and good DX is once again available to work almost on a daily basis. The 15 and 10 meter bands have roared back to life, and are showing good activity once again. If you are a new ham who has come into the hobby via the VHF and UHF bands, as is customary these days, I implore you to get on HF and work some DX. It is a thrill that cannot be described with mere words, one has to experience it. And you don't need to build a big station to do it, modest equipment will work just fine. Or you can just operate from our excellent club station, in which case you will have no trouble being heard. This solar cycle is already beating the best predictions, so unless it peters out early, the next few years are going to be a fun time to work some good DX on the HF bands.

Our able repeater committee has reported that the primary issue with the 2m machine was due to a bad patch cable, which has been repaired. The 70cm repeater is still off the air and is being worked on. We will let you know when it is back up and running at full strength. And as long as we talking about "repairs", I am happy to report that both Jeff, WB2ZBN; and Ray, W2RM, are back at home recovering nicely after undergoing some procedures themselves. Get well soon guys, we need you both, and we miss seeing you.

President's Message - Continued on page 3

President's Message - Continued from page 2

That is about all I have for now, but please join me in welcoming the following new members to GCARC :

- Adam Duncan, KD2ZCM
- Robert Saunders, KC2UYS (Returning Member)
- Robert Brown, KD2YUG
- Joshua Bradway, (no call)
- Robert Caruso, KC3TZQ
- Charles Lessley, KC3TZR
- Frank Reyes, KD2ZHA
- Thomas Distelcamp, KC2GYC
- Bill Mollenhauer, N2FZ (Returning Member)

Welcome all, and glad to have you aboard! I am looking forward to seeing everyone at the meeting on May 4th, but until then, 73 for now.

Tony Starr, K3TS

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

W2MMD 147.180 MHz 2-meter Repeater Repair

The Repeater Task Force recently, on March 30, 2022, spent a half-day inside and on top (**AL KB2AYU**) of the Pitman water tower on which our 2-meter and 70-centimeter repeater antennas are installed. The purpose of the visit was to see just how cold it could get inside the water tower, and if it was safe to be on top of the tower in a windy sleet storm. In reality, the team went out there to see what needed to be done to restore the former performance of the 2-meter repeater.

The crew included **Frank Romeo N3PUU**, **Al Arrison KB2AYU**, **Ron Block NR2B**, **John Zaruba K2ZA**, and **Chris Prioli AD2CS**.

The team checked antenna performance figures and found the SWR to be extremely high, in excess of 4:1, which was tracked down to a damaged jumper between the hardline that goes up the tower and the antenna mast. As they had limited supplies available, and since it was off the air anyway, the jumper from the 70-centimeter antenna was borrowed to bring the 2-meter repeater back into decent operating condition, with a final SWR measured at less than 1.3:1.

In addition, the repeater system hardware was cleaned and inspected, and the firmware was updated. Noise levels were measured and the filters inspected. The replacement 70-cm repeater was configured and set in place, ready to go when the new cable is installed, together with upgraded jumper cables throughout the installation. Thank you to the Repeater Task Force for bringing the 2-meter repeater back into good repair!



**Tech Saturday Forum
May 7, 2022 @ 0900 Hours
W2MMD Clubhouse**

Visit the Clubhouse and Help Out with Our Spring Spruce-Up, Eating Pizza and Socializing

Spring Cleaning time is here, and our Clubhouse is no exception.

We are looking for some “able-bodied” laborers to help with our annual spring spruce-up program, as we attempt to whittle away at the ongoing list of necessary Clubhouse and grounds chores that has been on the whiteboard since time began.

We are planning to do some light maintenance and repair work that has been on the hit list for a while, including such items like removing the bad paint from the front steps, replacing the front step hand rails, painting the shed, filling in the mole holes, and so forth. With a decent group of members, we can knock the chores out in no time at all, and then we can enjoy a hot pizza and cold soda lunch.

We plan to get started at 0900 hrs, and we will work until we have accomplished what we plan to get done that day. The more hands we have, the quicker and easier the work will go. It is *YOUR* Clubhouse - kick in some time and help out with its maintenance!

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

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

Club Elmers

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

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



General Membership Meeting
Wednesday, May 4, 2022
@ 1930 Hours



“Basic Electronic Troubleshooting”

Pfeiffer Community Center - Simulcast Live Via ZOOM

“Basic Electronic Troubleshooting” will introduce the membership to those steps necessary and the procedures to be followed for rudimentary location of defects in electronic equipment. When a piece of equipment fails to operate normally, in many cases the problem can be identified with a few simple tests. Depending upon the skill and knowledge levels of the individual, the fault may be repaired without too much difficulty.

Chris Prioli AD2CS will present his thoughts and practices to the membership, in such a manner as to make those practices easily applicable to most troubleshooting tasks. If you ever wished that you could be more proactive and less dependent on high-priced repair shops, this is one presentation you do not want to miss. Case histories will be discussed, and a question and answer period will follow the presentation.

FIELD DAY PREPARATION

We are currently assembling teams and developing our Field Day plan of attack, with the stated goal of besting our performance of last year and topping out again. Our effort is being chaired by Vinnie N4NYY, who can be reached at the email address in the club roster.

If you have ever wanted to give Field Day activities a try, this is the year to do it! Come on out and help *your* Club in its quest for Field Day supremacy. Every little bit helps. There is help needed with set-up as well as with operating the various stations. You don't need a rig of your own if you get on with a team in need of operators. There is something for everyone to do when it comes to a maximum-effort Field Day 2022! ***RESERVE THE DATES - June 25 - 26, 2022***

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



twitter.com/w2mmd_gearc

Facebook





DA's and DIT's

Gary Reed N2QEE reports : A VE session was held on April 14, 2022 at the W2MMD Clubhouse. There were seven candidates for the exams, six of whom passed their exams :

- **Frank Reyes KD2ZHA**, of Woolwich, NJ achieved a Technician license
- **Robert Caruso KC3TZQ**, of Clifton Heights, PA achieved a Technician license
- **Carl Janetti KD2ZGY**, of Swedesboro, NJ achieved a Technician license
- **Bruce Klein KD2ZGZ**, of Cherry Hill, NJ achieved a Technician license
- **James McKenna KC3TZZ**, of Upper Darby, PA achieved a Technician license
- **Charles Lessley KC3TZR**, of West Chester, PA achieved both a Technician and a General license

Since the ARRL now accepts applications as scanned files, the licenses appeared in the FCC ULS the next day on Friday, April 15, 2022. The hard copies must still be mailed with payment to the ARRL.

This was the last GCARC VE Session before activation of the FCC Application Fee of \$35.00 for new licenses or call sign changes, either systemic or vanity.

CONGRATULATIONS to all those who passed their exams this month and thus got in under the FCC fee wire! There were 7 VE's who participated in administering the exams, as listed below. Thanks to all who participated!

- **Gary Reed N2QEE**
- **Mike Resnick N2OWQ (first VE Session for Mike - Welcome!)**
- **Chris Chamberlain N2IVN**
- **Ed Champion N2RO**
- **Mike Harla N2MHO**
- **Chuck Colabrese WA2TML**
- **Chris Prioli AD2CS**

Congratulations to all those who passed license exams.

April Totals
 Technician : 6
 General : 1
 Amateur Extra : 0

The next VE session will be held at 7 PM on Thursday, May 12, 2022 at the W2MMD Clubhouse.

W2MMD Clubhouse HF Stations

For those who are unaware, we now have *two* HF rigs configured and operational in the HF room at the Clubhouse. One - the Icom IC-7300, is established and configured for local operation, while the other, our venerable Kenwood TS-480, is set up for remote operation. That's right, you can operate our HF station from the comfort of your own home! This is a *GREAT* benefit of Club membership, though these stations are too infrequently used. If you are interested in learning more about these rigs, and if you want to get "Elmered" up and cleared to use the remote unit, set up some one-on-one tutoring with **John Hill W2HUV**, who will work with you to schedule some personal time. John can be reached at the phone number and/or email on the Club roster. Please don't let this opportunity to gain some HF time go to waste. If you are a new General, or even a Technician wanting to use the HF allocations available to you, come out to the Clubhouse on any Saturday morning. Someone will be there who can get you up to speed on the Icom 7300. HF opens up a whole world of radio capability that should not be missed, and you don't have to wait 'til you get your own rig! The current solar cycle is running well ahead of predictions and it is an exciting time to be enjoying HF!

Welcome New Club Members :

- Josh Bradway, Associate, from Woodstown, NJ
- Bob Brown, KD2YUG, General from Haddonfield, NJ
- Robert Caruso, KC3TZQ, Technician from Clifton Heights, PA
- Tom Distelcamp, KC2GYC, Technician of Hightstown, NJ
- Adam Duncan, KD2ZCM, Technician from Hammonton, NJ
- Charles Lessley, KC3TZR, General from West Chester, PA
- Bill Mollenhauer, N2FZ, Amateur Extra from Pitman, NJ (returning former member)
- Frank Reyes, KD2ZHA, Technician from Woolwich, NJ
- Bob Saunders, KC2UYS, General from Sewell, NJ (returning former member)

We are glad to have you as members 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.



Sunday, May 8, 2022



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

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

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



Regional (Atlantic & Hudson Divisions) Hamfests & Events

April 30, 2022 : Drumlins Amateur Radio Club, Ltd, Drumlins ARC Hamfest, Palmyra VFW Post #6778, 4306 Route 31, Palmyra, NY. <http://www.drumlinsarc.us>

April 30, 2022 : Antietam Radio Association, The Great Hagerstown Hamfest, Washington County Ag-Center, 7313 Sharpsburg Pike, Boonsboro, MD. <http://www.w3cwc.org>

April 30, 2022 : York Hamfest Foundation, York Hamfest, Elicker's Grove Park, 511 Roth Church Road, Spring Grove, PA. <http://www.yorkhamfest.org>

May 1, 2022 : Warminster ARC Hamfest & ARRL Eastern Pennsylvania Section Convention, Bucks County Community College, Lower Bucks Campus, 1304 Veterans Highway (PA Route 413), Bristol, PA <http://www.k3dn.org/hamfest>

May 1, 2022 : Orange County Amateur Radio Club (NY) Spring Hamfest, Orange County Amateur Radio Club, Inc. Wallkill Community Center 7-9 Wes Warren Drive, Scotchtown, NY. <http://www.ocarcny.org>

May 7, 2022 : 2022 North Jersey Tailgate Hamfest, Splitrock Amateur Radio Association, Horseshoe Lake Park, 72 Eyland Avenue, Succasunna, NJ. <http://www.splitrockara.org>

May 21, 2022 : Thousand Islands Repeater Club, Thousand Islands Repeater Club Hamfest, Depauville Fire Department Community Center, 15231 School Street, Depauville, NY. <http://www.tirepeaterclub.com>

May 29, 2022 : Memorial Day Hamfest, Maryland FM Association, Inc, Howard County Fair Grounds, 2210 Fairgrounds Road, West Friendship, MD. <http://www.marylandfm.org>

WARMINSTER AMATEUR RADIO CLUB

2022 HAMFEST & ARRL EPA SECTION CONVENTION

Sunday, May 1st, 2022 (rain or shine) Talk-in 147.09+ (131.8) / 443.95+ (131.8)
Open at 7 a.m. (vendors at 6 a.m.)

LOCATION:
 Bucks County Community College - Lower Bucks Campus
 1304 Veteran's Hwy (Route 413)
 Bristol, PA 19007

GPS Coordinates:
 Latitude: 40.112755 | Longitude: -74.876504

- New & Used Ham Radio & PC Equipment
- Equipment check-out table
- VE Testing at 10:00 am
- DXCC card checking
- Door prizes every hour
- Food service available
- ARRL Guest Speaker Program (See K3DN website: www.k3dn.org for announcement of speakers and times)

- Gate admission: \$7/person
- Unlicensed spouses & under 13 free
- Student free with valid ID
- Handicap parking available
- Tailgating: \$10/car-width space (plus admission)
- Indoor tables: \$20/table (plus admission)

Splitrock Amateur Radio Association

2022 North Jersey Tailgate Hamfest



Talk-in

WS1R/R
 146.585
 146.386 input
 PL 131.8

Saturday May 7, 2022
 Roxbury Senior Center
 72 Eyland Ave
 Succasunna, NJ 07876
 N40°51.415' W74°38.239'



SPLITROCK

Gates Open

Vendors: 6:00 AM
 Buyers: 8:00 AM

Admission
 Buyers/Sellers \$7.00
 Tailgating \$20.00
 Tail Gate purchase includes ONE Admission
 Non-Ham YL's and Harmonics Free

Amateur Radio License Exams
 VE session at the Roxbury Senior Center
 Starting at 9:00AM
 Walk-ins allowed
 Be prepared for test visit:
arrl.org/what-to-bring-to-an-exam-session

General Information
 Splitrock Amateur Radio Association
 PO Box 528
 Lake Hopatcong, NJ 07849

Vendor Information
 Use the form online under Hamfest
 On Internet: splitrockara.org
 Email: hamfest@splitrockara.org

DXCC DSL Card Checking
 Courtesy of the North Jersey DX Association
njfxa.org



ARRL Southern NJ Section News : April 2022
Tom Preiser N2XW SNJ Section Manager
n2xw@arrl.org



Editor's Note... This month we have a "double-play of Tom's column, presenting his April Southern NJ Section News here and his May edition on Pages 15 and 16. Enjoy!

The weather is beginning to improve. Many clubs are planning their activities and gathering together again. There are also some hamfests in the planning phase. Some other clubs are planning Foxhunts and some have already had one or two. There seems to be no lack of amateur radio activities in the Southern New Jersey Section. Remember Field Day is coming in June. Even though you can work from home many clubs are planning to set up in the field again. I will be making the rounds to many clubs and I hope to see many of you. Don't forget to order your Field Day gear from the ARRL.

The ARRL Website is being redesigned. Check it out to see the new layout. We have been waiting for this for some time. I think many will like the new look. Don't forget to check out the ARRL Learning Center for new and updated courses <https://learn.arrl.org>

Annual Armed Forces Day Cross-Band Exercise Set for May 14

The 2022 running of the Armed Forces Day (AFD) Cross-Band exercise will be held on May 14, 1300 - 2200 UTC. A complete list of participating stations, modes, frequencies, times, and other details will be announced on April 1. The event is open to all radio amateurs. Armed Forces Day is May 21, but the AFD Cross-band military-amateur radio event traditionally takes place 1 week earlier, in order to avoid conflicting with Dayton Hamvention®. During the exercise, radio amateurs listen for stations on military operating frequencies and transmit on frequencies in adjacent amateur bands. Military and amateur stations have taken part in this event for more than 50 years. It's an exercise scenario, designed to include ham radio and government radio operators alike.

Per previous announcements : "The AFD Cross-band Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service, as authorized in 47 CFR 97.111. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise scenario that does not impact any public or private communications."

Military stations in various locations will transmit on selected military frequencies and announce the specific ham band frequencies they are monitoring.

An AFD message will be transmitted utilizing the Military Standard (MIL-STD) serial PSK waveform (M110), followed by MIL-STD Wide Shift FSK (850 Hz RTTY), as described in MIL-STD 188-110A/B. The AFD message will also be sent in CW and RTTY. Full details will be released on April 1.

Southern New Jersey Section News - Continued on page 10

2022 World Amateur Radio Day is April 18

All amateur radio operators worldwide can participate on Monday, April 18, 2022 at 0000 UTC until Tuesday, April 19, 2022 at 0000 UTC. This is a global event covering all regions of the International Amateur Radio Union (IARU). World Amateur Radio Day, held on April 18 each year, is celebrated worldwide by radio amateurs and their national associations which are organized as member-societies of the International Amateur Radio Union (IARU). It was on this day in 1925 that the IARU was formed in Paris. American Radio Relay League (ARRL) Co-Founder Hiram Percy Maxim was its first president.

On World Amateur Radio Day, all radio amateurs are invited to take to the airwaves to enjoy our global friendship with other amateurs, and to show our skills and capabilities to the public. World Amateur Radio Day is not a contest but rather an opportunity to “talk” about the value of amateur radio to the public and our fellow amateur colleagues. It is also a great opportunity to talk about your radio club and amateur radio in local media as a lead-up to ARRL Field Day (held each year during the fourth full weekend in June) and another ham radio related activity in your community - such as volunteers who serve in local emergency communication readiness including the ARRL Amateur Radio Emergency Service®.

Here are just a few ways to participate in, and promote, World Amateur Radio Day :

- Get a station on the air! Create your own personal “event” to talk about amateur radio to others, including family and friends.
- Create and hold a special net or on-air event on World Amateur Radio Day to raise the level of attention for the celebration, and to encourage other hams to talk about our hobby. Consider creating and offering a commemorative certificate for contacting your special activation. It can be an electronic one as these are cost effective.
- Promote your personal World Amateur Radio Day activities on social media platforms like Twitter and Facebook by using the #WorldAmateurRadioDay. Make sure you send it to various clubs, reflectors, and media.

Join us in celebrating World Amateur Radio Day and all the ways amateur radio brings us together!



April General Membership Meeting

The April General membership Meeting was well-attended, as can be seen in the accompanying photo. Twenty-eight members attended in person, with another seventeen attending via ZOOM.

The live meeting, as usual, was held at the Pfeiffer Community Center in Williamstown. **Ron Block NR2B** was the meeting program presenter, putting on a show about ham shack grounding and lightning protection.

Coffee, cookies, bottled water and soft drinks were available for refreshment of the attendees.



Amateur Radio Helps Rescue Injured California Outdoorsman

A relaxing weekend of camping and fishing did not go as planned last Friday (8 April) when a member of a California outdoors club fell and broke his hip.

The Old Goats Mountain Club (OGMC) had worked their way along an old Forest Service Road into a rugged, off grid location in the foothills of the Cascade Mountains. Dave Johnson, KL7DJ, said his friend slipped and fell while trying reel in a catch. The injury was so severe that the man could not be moved safely with a trip that could take at least 2 hours over the rough terrain.



REACH 5 helicopter ready to transport with injured outdoorsman on board. [Dave Johnson, KL7DJ, photo]

Johnson is the only licensed amateur radio operator in the group and using the California Amateur Linking Radio Association (CARLA) system, he was able to call for emergency help from his vehicle. Greg Stamback, KD6VEN, located in the San Francisco Bay area responded and contacted the Shasta County EMS which dispatched a REACH 5 rescue helicopter from their base in Redding, California.

The entire rescue took about 1 hour and before the helicopter landed a local ambulance company arrived and was able to stabilize the injured camper. After surgery and 3 days in the hospital he is now at home recovering.

Johnson's wife Linda, KL7ISN, helped coordinate getting their friend's vehicle back to Redding. Using pre-planned contact schedules for Friday and Saturday and, after several makeshift auto-patches, the car was driven to a nearby highway where two other club members were able to take the car safely back home.

But the weekend was not over for amateur radio help. While the rest of the group was making their way out of the mountains on Sunday they were flagged down by a stranded motorist. His car's gas tank had been punctured and his cell phone would not work. He was taken to a small community along the way where there was a landline, and he was able to call for help from AAA.

Johnson said the motorist was thankful for the help and another member of the OGMC suggested the motorist might want to consider getting an amateur radio license.

While waiting for a tow truck to arrive, Johnson and a couple of OGMC members talked about amateur radio and how it had helped over the last few days. One member suggested maybe even he should have a transceiver installed in his vehicle. Johnson plans to make sure his friend, and the motorist, get a complete demonstration.

Article Credit : The ARRL Letter for April 14, 2022 - www.arrl.org



**REMEMBER OUR HEROES!
Monday, May 30, 2022**

The “DigiNet”

First Monday Of Every Month @ 1900 Hours

Next Net Meeting : Monday, 2 May 2022

147.180 MHz Repeater & EchoLink : W2MMD-R

Current topic is MMSSTV to take us up to the summer break.

This will be the last DigiNet session before the summer hiatus. The Digi-Net sessions will restart on Monday, October 3, 2022. See “The DigiNet” webpage for updated information

We will utilize the Tuesday Noon Day and the Thursday Night Rag Chew Nets to discuss and plan the upcoming Monday and the monthly activities of The “DigiNet”.



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



This net has an alternating net control operator.
Here is the schedule for the upcoming weeks

Steve Farney, W2SEF : May 5, 2022
Gary Mirkin, WA3SVW : May 12, 2022
Chris Prioli, AD2CS : May 19, 2022
Greg Ciraula, W5DO : May 26, 2022
Mary Delemarre, W2TDS : June 2, 2022
Steve Farney, W2SEF : June 9, 2022
Chris Prioli, AD2CS : June 16, 2022
Gary Mirkin, WA3SVW : June 23, 2022
Greg Ciraula, W5DO : June 30, 2022
Chris Prioli, AD2CS : July 7, 2022
Mary Delemarre, W2TDS: July 14, 2022
Steve Farney, W2SEF : July 21, 2022
Gary Mirkin, WA3SVW : July 28, 2022
Greg Ciraula, W5DO : August 4, 2022
Mary Delemarre, W2TDS : August 11, 2022
Chris Prioli, AD2CS : 18 August 2022

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

How To Use The Clubhouse Calendar

Whether you are going to the Clubhouse to operate or using Remote Operating, all members are required to use the “Clubhouse Calendar” on the website to book time slots for all operating.

1. There are two ways to access the **Clubhouse Calendar** :
 - Go to **Clubhouse Calendar** menu on the left hand menus on the website.
 - Or click the **Clubhouse Calendar** button on the **Remote HF Station** page.
2. Click on a date box.

The screenshot shows a web form for creating a calendar event. At the top, the event title is "Tech Saturday Forum" with a close button (X) on the right. Below the title, there are input fields for "From" (08/10/2019 9:00) and "To" (08/10/2019 12:00). There are checkboxes for "All day" and "Repeats". On the right side, there are buttons for "Save" (green), "Print", "Share", "Options", and "Delete". Below these, there is a "Reminders" section with a "Log in" link. A "Calendar" section shows a dropdown menu with "Clubhouse Events" selected. The "Who" section has a dropdown menu with "Clubhouse Operating" (yellow), "Clubhouse Work" (red), and "Remote Operating" (blue) options. The "Where" section has a "Show on map" link and a text input field containing "W2MMD Clubhouse". The "Description" section has a text area containing "The Tech Saturday Forum is a monthly event where all Amateur Radio topics are discussed."

3. Enter the **Event Title** (e.g., CQ WPX CW Contest, Local Operating, etc).

How To Use The Clubhouse Calendar - Continued on page 14

How To Use The Clubhouse Calendar - Continued from page 13

4. Make sure the date and times are set. It defaults to “**All day**”, but un-check it to enter specific times.
5. Under the **Calendar** field, you have four options :
 - **Clubhouse Events** is used for such things as Tech Saturday or the Board meeting.
 - **Clubhouse Operating** is used if you are going to the Clubhouse to operate, either using the HF radio or bringing your own radio.
 - **Clubhouse Work** is used if you planning to do some work at the Clubhouse such as cut the grass, weed whack, paint the shed, etc.
 - **Remote Operating** is used if you will be operating the HF radio remotely.
6. Under the **Who** field, just enter your name and callsign.
7. Under the **Where** field, enter W2MMD Clubhouse if you will be there, Home if you are remote operating.
8. Under the **Description** field, type a brief description of what you will be doing (e.g., remote operating for a contest, local operating, working, etc.).
9. Click **Save**.

Be advised that everyone is an administrator on this calendar, so yes, you can delete someone else's appointment. So let's have a little respect for our fellow members and use this calendar correctly.

Book News : *Mini DXpeditions For Everyone*

By Billy McFarland, GM6DX

Many consider DX expeditions as complex events that may involve sending a container of materials to a Pacific island or obtaining visas for a country with little or no amateur radio activity. However, it doesn't have to be this way, and this book shows 'that you can do this!' along with the fun you can have on a shoestring budget with some friends or on your own.

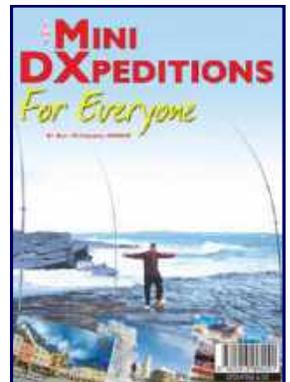
So what is a mini-DXpedition? DX expeditions are expeditions to a particular location in order to operate DX (long-distance radio contacts) with amateur radio. A mini-DXpedition is, of course, simply a smaller-scale event, perhaps a trip from the UK to Europe with 5 or fewer operators or a trip to a local island or beach. It's no wonder that these trips require having a control of the various antenna properties, which antennas are practical, good operational practices, and RFI troubleshooting. That's where Mini DXpeditions for Everyone sets out to help. You'll find antenna guides you could use, propagation considerations, effective radios, power sources, RFIs, and more to aid in your planning. You'll also find information on effective operations and even tips for your PR skills. Location options are explained and the book provides tips to ensure you operate legally in other countries. There's even a section on Pico-DXpeditions for the solo trader and another on how you could record your adventure.

Mini DXpeditions for Everyone shows that everyone can organize a DXpedition and, more importantly, the fun you can have doing it. This book is a totally recommended read for absolutely everyone who has ever wondered about portable operation to enjoy the challenge of operating from an unknown station with some friends.

Size 176 x 240mm, 128 Pages ISBN : 9781913995201

Kindle version here for purchase : <https://www.amazon.co.uk/dp/B09XVNR63T>

Source : www.qrz.com





ARRL Southern NJ Section News : May 2021

Tom Preiser N2XW SNJ Section Manager

n2xw@arrl.org



Editor's Note... This month we have a "double-play of Tom's column, presenting his May Southern NJ Section News here and on Page 16. His April edition can be found on Pages 9 and 10. Enjoy!

The weather is getting much nicer. The bands are really open. I am hearing that people are making contacts on the radio like we haven't seen in sometime. This is an exciting time to be an amateur radio operator. Please encourage everyone to get on the air as often as possible. I have been on almost every day and its hard to turn off the radio to move on to something else.

As you may know by now the ARRL web site has been updated. It may be confusing how to log on. Since the changes have been made you have to reset your password. In some cases, you have to set up your login again using your email. It took me a few tries but I finally got it to work.

Follow these steps to sign in and access ARRL features and services : Go to arrl.org and click "Login". If you had an existing account and have not logged into the new system yet, you can do one of the following steps :

- If you know your username, click "Reset Password". Check your email; you will receive an email from "Personify Identity Provider" with a subject of "ARRL Reset Password Request". Follow the instructions in the email. If you do not receive an email to reset your password, click on "Forgot Username" and proceed from there.
- OR when you get to the Login Screen, Click on Register. Enter the main e-mail address we have on file and click "Next." * You will be prompted to create a username and new password. Your password must contain at least eight characters, a number, an uppercase letter, a lowercase letter, and a non-alphanumeric character. *Note, if the email address is not on file, then you will need to fill out all the fields (first name, last name, address, etc.).
- OR if you have logged into the new system, please enter your username and password.
- OR if you never had an ARRL account, click "Register" and follow the prompts. This will log you in to arrl.org, which now allows you to renew, donate, and shop all in one transaction. If you need help, we're here for you. Call us Monday - Thursday from 8 am - 7 pm (ET) and on Friday from 8 am - 5 pm (ET) or e-mail us at membership@arrl.org.

Meeting Resources

Anyone that has been involved with a club knows that it is a challenge coming up with meeting materials and presentations. Club meetings should be more than just listening to the repeater and treasurer reports. Here at ARRL Headquarters, we get requests all the time to speak at meetings. Unfortunately, there are only so many of us and resources are thin. However, we can offer clubs the ARRL Learning Center as a resource. There you will find a list of presentations on a variety of topics. The recordings can be used at a club meeting, even a virtual meeting. Most have a contact for additional information, and they are all. The only requirement is that whoever logs into the Learning Center must be an ARRL member. Their ARRL website credentials will get them in. Check it out and try it for a meeting. The address is <https://learn.arrl.org>. Most of the content in the webinars section is the perfect length for a club meeting. You will also find training programs and educational materials for the member and the club.

Southern New Jersey Section News - Continued on page 16

Warminster ARC & EPA Section Convention, Sunday, May 1, 2022 : 7 am to 1pm. At Bucks County Community College - LowerBucks Campus, 1304 Rte. 413, Bristol, PA. Website: <http://wp.k3dn.org/hamfest>

NJECT Spring Fox Hunt - May 14, 2022 10 AM-12 PM Thompson Park Lincroft NJ. Go to <http://nject.us> for more information.

Cape May County Amateur Radio Club Hamfest - June 25 and 26, 2022. Doors open at 7 AM. It will be held at the Cape May Airport Complex in Erma NJ. http://cmcarc.org/?page_id=1294

Remember if your Club is having an event, please send me the information and I will put it out to the Southern New Jersey Section.

Garde-à-vous!.....Garde-à-vous!

**The next monthly VE Testing session is set for Thursday, May 12, 2022.
Regular test sessions are the second Thursday of each month at 1900 hrs.
Testing is now done at the GCARC W2MMD Clubhouse!**

The W1UL Ham Cram Website
www.ham-cram.com

Antenna Wire Cut Lengths for Certain Bands

| Band | Frequency (MHz) | $\lambda / 1$ | | $\lambda / 2$ | | $\lambda / 4$ | | $\lambda / 8$ | |
|-----------|-----------------|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| | | feet | meters | feet | meters | feet | meters | feet | meters |
| 70cm HIGH | 450 | 2.19 | 0.67 | 1.09 | 0.33 | 0.55 | 0.17 | 0.27 | 0.08 |
| 70cm MID | 435 | 2.26 | 0.69 | 1.13 | 0.34 | 0.57 | 0.17 | 0.28 | 0.09 |
| 70cm LOW | 420 | 2.34 | 0.71 | 1.17 | 0.36 | 0.59 | 0.18 | 0.29 | 0.09 |
| 2m HIGH | 148 | 6.65 | 2.03 | 3.32 | 1.01 | 1.66 | 0.51 | 0.83 | 0.25 |
| 2m MID | 146 | 6.74 | 2.05 | 3.37 | 1.03 | 1.68 | 0.51 | 0.84 | 0.26 |
| 2m LOW | 144 | 6.83 | 2.08 | 3.42 | 1.04 | 1.71 | 0.52 | 0.85 | 0.26 |
| 6m HIGH | 54 | 18.22 | 5.56 | 9.11 | 2.78 | 4.56 | 1.39 | 2.28 | 0.69 |
| 6m MID | 52 | 18.92 | 5.77 | 9.46 | 2.88 | 4.73 | 1.44 | 2.37 | 0.72 |
| 6m LOW | 50 | 19.68 | 6.00 | 9.84 | 3.00 | 4.92 | 1.50 | 2.46 | 0.75 |
| 10m HIGH | 29.7 | 33.13 | 10.10 | 16.57 | 5.05 | 8.28 | 2.53 | 4.14 | 1.26 |
| 10m MID | 28.85 | 34.11 | 10.40 | 17.05 | 5.20 | 8.53 | 2.50 | 4.26 | 1.30 |
| 10m LOW | 28 | 35.14 | 10.71 | 17.57 | 5.36 | 8.79 | 2.68 | 4.39 | 1.34 |
| 15m HIGH | 21.45 | 45.87 | 13.99 | 22.94 | 6.99 | 11.47 | 3.50 | 5.73 | 1.75 |
| 15m MID | 21.225 | 46.36 | 14.13 | 23.18 | 7.07 | 11.59 | 3.53 | 5.80 | 1.77 |
| 15m LOW | 21 | 46.86 | 14.29 | 23.43 | 7.14 | 11.71 | 3.57 | 5.86 | 1.79 |
| 20m HIGH | 14.35 | 68.57 | 20.91 | 34.29 | 10.45 | 17.14 | 5.23 | 8.57 | 2.61 |
| 20m MID | 14.175 | 69.42 | 21.16 | 34.71 | 10.58 | 17.35 | 5.29 | 8.68 | 2.65 |
| 20m LOW | 14 | 70.29 | 21.43 | 35.14 | 10.71 | 17.57 | 5.36 | 8.79 | 2.68 |
| 40m HIGH | 7.3 | 134.79 | 41.10 | 67.40 | 20.55 | 33.70 | 10.27 | 16.85 | 5.14 |
| 40m MID | 7.15 | 137.62 | 41.96 | 68.81 | 20.98 | 34.41 | 10.49 | 17.20 | 5.24 |
| 40m LOW | 7 | 140.57 | 42.86 | 70.29 | 21.43 | 35.14 | 10.71 | 17.57 | 5.36 |
| 60m HIGH | 5.405 | 182.05 | 55.50 | 91.03 | 27.75 | 45.51 | 13.88 | 22.76 | 6.94 |
| 60m MID | 5.3585 | 183.63 | 55.99 | 91.82 | 27.99 | 45.91 | 14.00 | 22.95 | 7.00 |
| 60m LOW | 5.332 | 184.55 | 56.26 | 92.27 | 28.13 | 46.14 | 14.07 | 23.07 | 7.03 |
| 80m HIGH | 4 | 246.00 | 75.00 | 123.00 | 37.50 | 61.50 | 18.75 | 30.75 | 9.38 |
| 80m MID | 3.75 | 262.40 | 80.00 | 131.20 | 40.00 | 65.60 | 20.00 | 32.80 | 10.00 |
| 80m LOW | 3.5 | 281.14 | 85.71 | 140.57 | 42.86 | 70.29 | 21.43 | 35.14 | 10.71 |
| 160m HIGH | 2 | 492.00 | 150.00 | 246.00 | 75.00 | 123.00 | 37.50 | 61.50 | 18.75 |
| 160m MID | 1.9 | 517.89 | 157.89 | 258.95 | 78.95 | 129.47 | 39.47 | 64.74 | 19.74 |
| 160m LOW | 1.8 | 546.67 | 166.67 | 273.33 | 83.33 | 136.67 | 41.67 | 68.33 | 20.83 |

Note that radio signal speed through copper wire is approximately 95% of the signal speed in a vacuum.



GCARC Education Committee : Ham Radio Exam Preparation Classes Session II By Chris Prioli, AD2CS

With Session I in the record books and those students mostly having passed their exams, it was time to start up Session II, which kicked off with a bang the week of April 4, 2022. As before, the Technician (Element 2) classes are on Monday nights, the General (Element 3) classes are on Tuesday nights, and the Amateur Extra (Element 4) classes are on Friday nights. What *is* different this session is that all of the classes are being offered only via ZOOM, due to the ongoing Clubhouse construction activities.

Enrollment is good, with a total of twenty-nine students in the three classes. There are eight enrollees in the Technician group (there was one additional enrollee, who backed out before the class began). There are eight enrollees in the General class, and thirteen in the Amateur Extra class. There was one additional enrollee here as well, but that gentleman sat for and passed his Element 4 exam, and so backed out of the class before the session started.

To their credit, there are two students in the Technician class who are already (very recently) licensed at the Technician level. These two gentlemen chose to continue with the classes for the educational value provided. In addition, both of these two students are also double-enrolled, in that they are also taking the General class.

In addition to the registered students in the General class, we have one additional student who is auditing the class. This individual successfully completed the General class in Session I and earned her General license. However, now that the pressure of studying to pass the test is behind her, she asked if she could sit in on the classes just as a means of picking up on some of the theory that went past her the first time around. Of course, this was permitted and she is now auditing the classes on Tuesday evenings.

The classes run for eight weeks, with the exams being proctored during a ninth week. The current schedule calls for the Technician candidates and the General candidates to test together on Tuesday, May 31, 2022 due to the Memorial Day holiday on Monday. The Amateur Extra candidates will test on Friday, June 3, 2022.

The assisting instructors are, as before, **Gary Reed N2QEE** assisting in the Technician-level class and **Chuck Colabrese WA2TML** in the Amateur Extra level classes. Helping out for the first time is **Steve Farney W2SEF** in the General-level classes.

Even with the normal attrition that occurs, the expectation is for at least a half-dozen new hams, a half-dozen new Generals, and a dozen new Extras among the ranks of Amateur Radio operators.

On another topic, the Monday night DigiNets are being rolled into the Education Committee umbrella. As such, the committee will be coordinating the topics and scheduling with those able and willing to help out with the instruction of the digital topics. The DigiNet has one more session to run before summer break - the May session - which will wrap up coverage on the slow-scan television or SSTV.

Upon its return in October, the DigiNet will move to 2000 Hours and will run on the first and third Mondays of each month. **Gary Mirkin WA3SVW** has agreed to stay on as instructor for the next session, which is tentatively set to cover FLDIGI. The hope is that some of our newer licensees and members will benefit from the DigiNet coverage.



Amateur Radio Emergency Services Update - April 2022

By Bob Keogh, KD2NEC - Gloucester County Emergency Coordinator

1. If you are interested in actually operating the Emergency Command Center Communication POD during Field Day this year, we hope to have it operational and in use as the "GOTA" station.

2. Eight GCARC members will be participating in a Child Abduction Response Team (CART) Simulated Exercise on Tuesday, April 26, 2022 at the Franklinville Fire Department. Among other tasks, we will be providing simulated "tips" to the Hotline and helping to relay those tips to the police that are manning the simulated road blocks. This exercise is critical to the certification of this very important program in Gloucester County.

3. Here is a link to just one of the many interesting articles in this month's ARES News Letter from the ARRL :

<https://www.emcomm-training.org>



4. If you are interested in joining Amateur Radio Emergency Services, the Child Abduction Response Team or the Community Emergency Response Team, contact Bob Keogh at **KD2NEC <at> qsl <dot> net**.

February ARES/RACES Net Check-Ins

March 6 : 12 Check-Ins

March 13 : 14 Check-Ins

March 20 : 13 Check-Ins

March 27 : 15 Check-ins

54 Total Check-ins for March

The monthly ARES Update is published in CrossTalk as a public service, as a means of keeping our membership aware of the current status and activities of the Gloucester County ARES group.

ARES is a worthwhile organization under the auspices of ARRL, and the group works co-operatively with the various local emergency management teams within Gloucester County.

*If you are interested in participating in the ARES group effort, please contact **Bob Keogh KD2NEC** at **KD2NEC <at> qsl <dot> net***



FET Dip Meter Build - Part Two

By Chris Prioli. AD2CS

In Part Two, we continue the FET Dip Meter build from last month with the wiring of the LCD panel, coil construction, and the final unit assembly.

Wiring of off-board components was simple enough, with all wiring steps clearly delineated in the build instructions. The six-lead pre-wired plug and harness gets connected to pins 1 through 6 of the LCD panel, connecting the wires from the foil or “back” side of the LCD panel. The wire color and pin sequence is the familiar electronics color scheme - brown to pin 1, red to pin 2, orange to pin 3, yellow to pin 4, green to pin 5, and blue to pin 6. The four-lead pre-wired plug and harness is connected in the same manner to pins 11 through 14 of the LCD panel, again with the color scheme of brown to pin 11, red to pin 12, orange to pin 13, and yellow to pin 14. The wired LCD panel is shown in **Figure 5**. Ultimately, these two harnesses will be connected to the angled pin headers on the PCB with the brown wires to the left when the board is viewed with the DIN socket away from you.



The two-lead pre-wired plug and harness gets connected to the meter, with the red or pink wire going to the positive terminal and the black or grey wire going to the negative terminal. After soldering the leads in place, slide the heat-shrink tubes in place over the terminals and apply some heat to shrink them there. Then, gently bend the terminals downward to place them alongside the meter housing. Ultimately, this harness will be connected to the two-pin straight pin header with the black or grey lead closest to the bottom edge of the PCB when the board is held with the DIN socket away from you. The PCB is marked M+ and M- next to these two pins on the header. The completed top half of the unit is shown in **Figure 6**.

Once the basic build is complete, but before installing the μC to its socket, a check for the 5VDC operating voltage is called for. This is done by connecting the battery to its snap, flipping the power switch to its “ON” position, and measuring the voltage at various points on the PCB, always with respect to ground (the battery negative lead tie point). Locations that should measure +5VDC (nominal) are Pin 3 of the LM7805 voltage regulator, Pins 4 and 14 of the μC , and Pin 2 of the LCD panel. On the other hand, the meter + terminal should have the full 9VDC present, as should the 39k Ω resistor at the drain of Q2 and the 270 Ω resistor at the drain of Q1.

Once the operating voltages check out, turn the power switch “OFF” and verify that the voltages - both 9VDC and 5VDC - are no longer present. If all is OK, it is now time to install the μC in its socket, taking care to align the notch or dot on the IC with the notched end of the IC socket. This orientation should lead to the dotted or notched end of the IC (the Pin 1 end) being towards the bottom of the unit.

After installing the μC into the IC socket, it is time to connect the two harnesses from the LCD panel to the angled pin headers on the PCB. As already mentioned, the harnesses will be connected with the brown wire towards the left on each plug when viewed with the DIN socket away from you. Then connect the meter harness to the two-pin header with the black or grey lead towards the bottom edge of the PCB, as already mentioned. Turn the unit on and verify that the LCD panel is active. You may need to adjust the 5k Ω potentiometer to bring the LCD contrast into proper adjustment for viewing. If you cannot get the display to go active, power down and check carefully for solder bridges at the LCD panel wire connect points and on the main PCB, especially in the vicinity of the microcontroller IC.

AD2CS FET Dip Meter - Continued on page 20

A brief word is due here about coil changes. I strongly advise that the unit always be powered down to make a coil change. I don't know that any actual harm will come from hot-swapping a coil, but why take the chance? It's a simple flip of a slide switch to "OFF", change the coil, and then slide the switch back to "ON".

It only takes a second or so, and it could forestall damage to your dip meter. If the display is active, power down and insert the pre-wound coil #1 into the DIN socket, then move the power switch to its "ON" position. The unit should oscillate from around 1.30 MHz to 2.80 MHz, as indicated on the LCD panel. The 10k Ω 30-turn pot on the left side of the unit is the unit's Calibration control. It should be adjusted to obtain a reading of about 2/3 of the frequency range, or about 2.305 MHz. It may take numerous turns of the calibration pot to get the calibration to that point, but once there, only minor adjustment will be needed when working with the higher frequencies. Observe the meter while moving your finger near the coil. Your finger may cause the meter to do its characteristic dip, but don't be alarmed if it doesn't.

If all works as it should, it is time to close up the case. Remove the coil from the DIN socket. Carefully arrange the wire leads to keep them clear of the meter housing. Allow the battery to hang free through the battery compartment door opening. Insert the end plate of the enclosure into its slot, making sure that the DIN socket is aligned with the hole in the plate. Then bring the two halves of the enclosure close to each other, aligning the end plate with its slot in the upper half of the enclosure, and while aligning the two pot knobs with their holes in the top half, bring the two halves together. Secure them to each other using the four black screws provided for this purpose. The basic meter is now complete, and it is time to begin winding the remaining four (or five) coils.

Winding the coils is simply a matter of following the illustrated guides presented in the instructions - one for each coil. The various coils use a couple of different wire gauges for their windings as follows :

- Coil 1 (pre-wound) - 36AWG enameled magnet wire
- Coil 2 - 28AWG enameled magnet wire
- Coil 3 - 28AWG enameled magnet wire
- Coil 4 - 24AWG enameled magnet wire
- Coil 5 - 24AWG enameled magnet wire
- Coil 6 - 24AWG enameled magnet wire

As shipped, the wire is, for the most part, separated and tagged by the coil number for which it is intended to be used. The exception to this is a small spool of wire tagged for coils 2 and 3. Also, each coil form is identified with a numbered label again with the exception of coils 4 and 5, which use identical forms. The inconsistency in methodology was an affront to my ordered mind, but it was not insurmountable. I simply applied the supplied labels to each of the unlabeled coil forms. I suppose, if one were so inclined, that a similar label could be affixed to each coil form identifying the frequency range for which the coil is used. I chose instead to place that information on a chart affixed to the back of the enclosure.

As each coil was wound and the wire tails were brought out through the hollow core of the coil form, I cut each tail off at about one-half inch length. Each tail was then stripped of its enamel coating and tinned in preparation for soldering to the DIN plug pins. Stripping and tinning of most enameled magnet wire is most easily done by wetting the tip of your soldering iron with a fresh drop of solder, and then dragging the wire tail through that solder drop. The heat of the molten solder will burn away the enamel coating, which will be replaced by a coating of solder on the wire tail. While the enamel coating can also be mechanically removed by repeatedly pulling the wire through a folded piece of 400-grit sandpaper, I find the solder method to be

AD2CS FET Dip Meter - Continued on page 21

quicker and cleaner.

Each coil is wound by starting the magnet wire through the low hole in the form and passing it through the coil form until your half-inch tail is achieved. Then, wind the requisite number of turns for the low coil, and pass the wire end through the mid-height hole in the coil form and down through the hollow core, cutting it off even with the first tail at one-half inch. Now, pass the end of the remaining wire through the mid-height hole in the coil form again, establishing a tail length of one-half inch as before. Wind the requisite number of turns for the high coil and pass the wire end through the high hole in the coil form, again leading it down through the hollow form core to match up with the other tails. Cut it off at the now familiar length of one-half inch. **Figure 7** shows the wound coils before the leads were trimmed, stripped, and tinned. Strip and tin all four wire tails. Solder the wire from the low hole to pin 1 of the DIN plug. Twist the two wires from the mid-height hole together and solder them to pin 2 of the DIN plug. Solder the wire from the high hole to pin 3 of the DIN plug. Insert the provided form plug disc into the upper end of the form. DO NOT apply the heat shrink tube to the coil yet - this will be done later. Repeat the winding process for each of the remaining coil forms. Also, DO NOT snap the DIN plug into the lower end of the coil form yet. This will be done after coil calibration and wire securement has been accomplished.

Once all of the coils have been wound, they are one by one inserted into the DIN socket and their frequency ranges are established. The upper and lower frequencies are adjusted by changing the spread of the wires turns in the individual coils. When you have the correct positioning set, maintain the wire positions temporarily with some clear tape such as packing tape. After all of the coils have been fine-tuned, the clear heat shrink tubing is applied to the coil forms and is shrunk into place with the application of some heat. Then snap the DIN plug into the lower end of each coil form. The coils are now ready for use, as shown in **Figure 8**.

The astute reader will have noticed that I have not discussed the right-hand 10kΩ 30-turn potentiometer or the 4.5pF to 20pF trimmer capacitor yet. I have not forgotten them. The right-hand pot is the unit's Frequency adjustment and is used to adjust the bias voltage on the varactor diodes, changing their capacitance and thus adjusting the frequency of the oscillator.

The trimmer capacitor is there as a hedge against an off-spec 10 MHz crystal in the PIC16F628A clock circuit. Although these crystals seldom vary from their specified frequency by more than 100 Hz or so, it is possible, so the trimmer cap is there to bring the clock frequency to exactly 10 MHz. Of course, adjustment of the trimmer requires the use of an accurate frequency counter. Fortunately, this is seldom an issue as it is not very critical to the operation of the overall unit. **Figure 9** shows the working unit.

I said earlier that I affixed a label to the back of the unit listing the frequency ranges of the various coils. This chart also shows the calibration frequency for each coil - remember?? That 2/3 of the range point? It looks something like this :

| Coil Number | Low End MHz | High End MHz | Cal Freq MHz |
|-------------|-------------|--------------|--------------|
| 1 | 1.30 | 2.80 | 2.305 |
| 2 | 2.35 | 5.24 | 4.2863 |
| 3 | 4.12 | 9.36 | 7.6308 |
| 4 | 7.94 | 17.83 | 14.5663 |
| 5 | 15.45 | >30.00 | 25.1985 |
| 6 | 15.45 | >60.00 | 45.2985 |

In using the dip meter, I generally start with the Frequency control set to its approximate mid-point. Then, once I insert a coil, I adjust the Calibration control to the Cal Freq for the coil number in use. Next, I bring the unit into close parallel proximity to the circuit to be measured for resonant frequency. Now I adjust the Frequency control until I note the dip in the meter indication. The frequency shown on the LCD panel will be the resonant frequency of the circuit under test. All things considered, this was an interesting build with its share of challenges. It was certainly doable, and it works as advertised. I would recommend this build for someone with moderate experience level - I would not advise that a beginner try this one. The inexperienced builder will likely become confused and frustrated in attempting this build. That said, the unit is of a relatively high finished quality. It could be improved upon by some front panel labels. I overcame the label issue by printing a self-adhesive label for the front panel, identifying the various controls and meters. **The Picture on the title page and Figure 10 show the labels that I affixed to the completed unit.** This is something that the kit supplier might have done to really put this kit over the top.

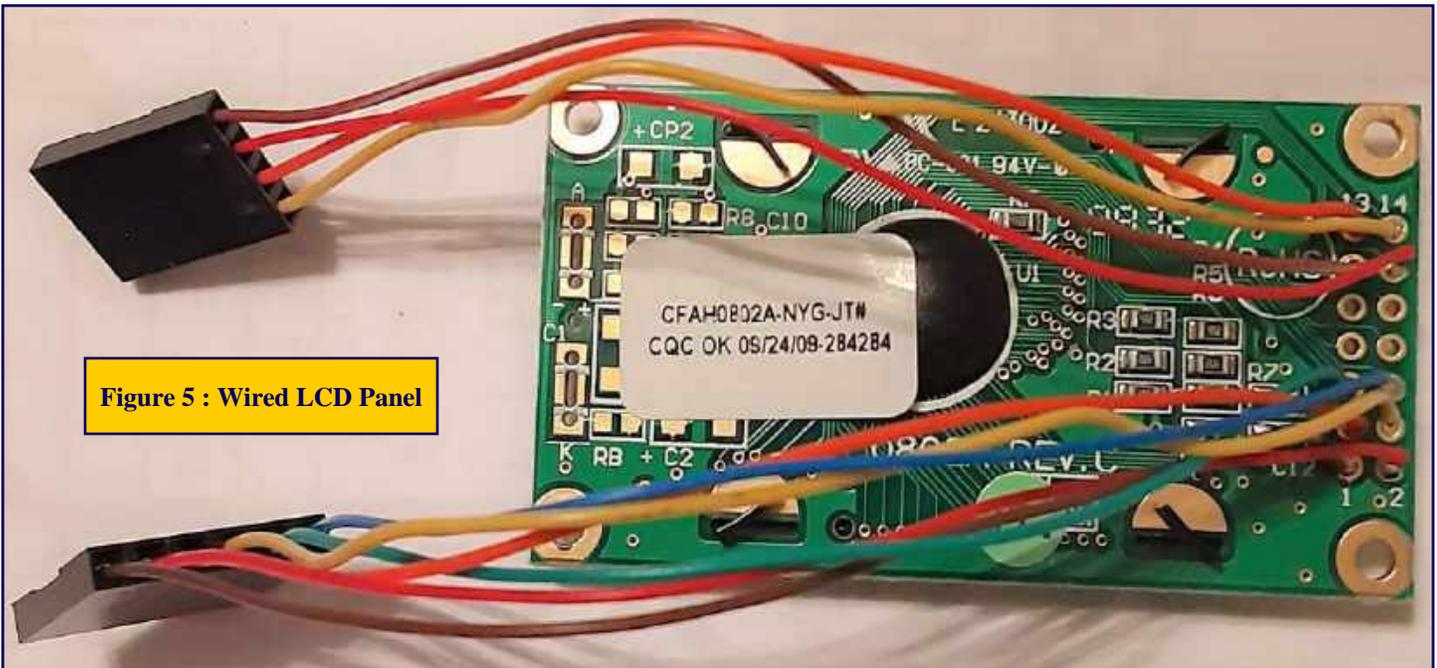


Figure 5 : Wired LCD Panel

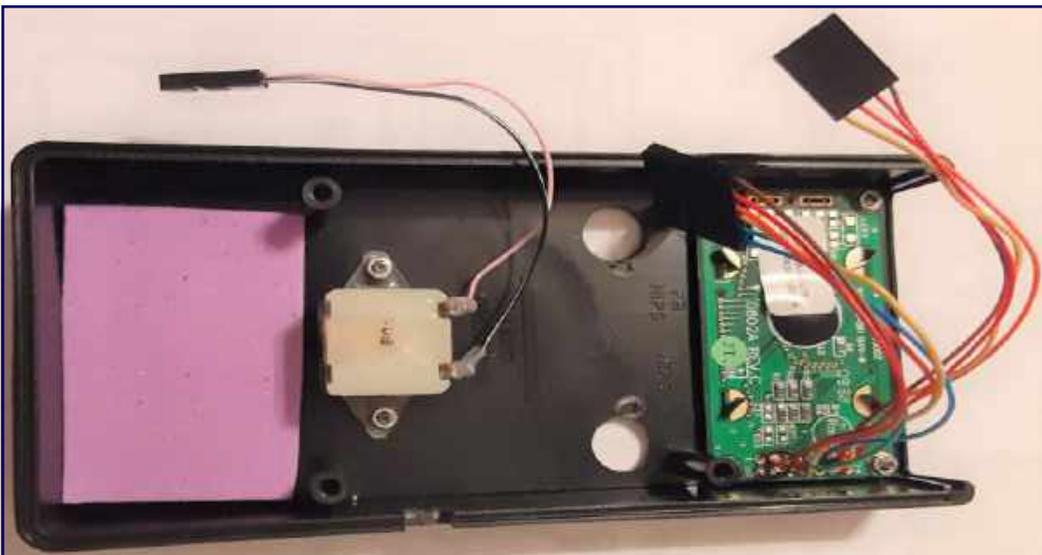


Figure 6 : Top Half of Enclosure Ready

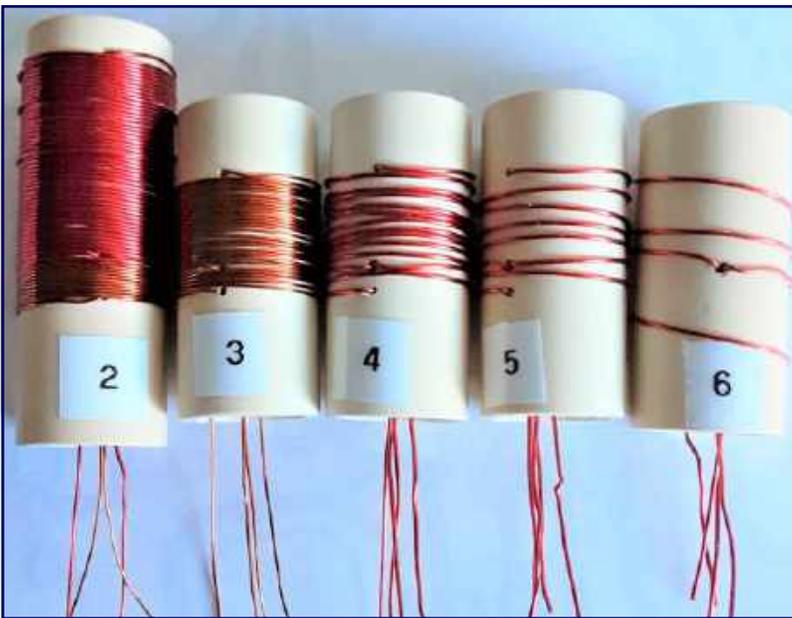


Figure 7 :
Wound Coils
Without
Plugs



Figure 9 :
Working
Unit

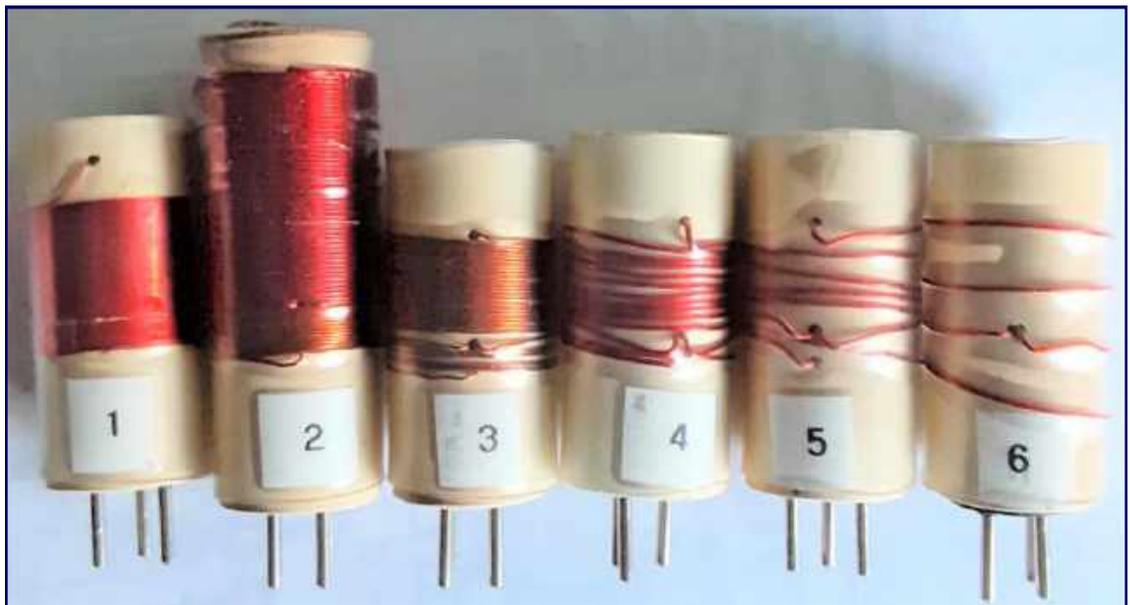


Figure 8 : Completed
Coil Set



Figure 10 : Chart Label On Rear

Answers on Page 42

Vintage Ham Radio

Crossword Puzzle courtesy of W2PA.com Amateur Radio - Crossword Puzzles (google.com)

Across

- 1. Radio named for a bird
- 5. Lake ___ swing
- 9. An SB-220, very broadly speaking
- 14. Oscar's follower
- 15. In the middle of EME
- 16. Tough, durable wood
- 17. Times past
- 18. Fine tuning, on some vintage receivers
- 20. Presses the upper left key
- 22. They get disqualified in a contest, probably
- 23. Vibroplex manual item
- 24. Iowa ham equipment maker, informally
- 25. Cartoonist Schultz, on CW maybe?
- 26. ___ generator
- 28. A step lower in frequency than Re's
- 29. Proof ender, maybe on CW too
- 32. Meadow sound
- 34. Volatile computer storage
- 35. Four digits of nothing, on CW, for short
- 36. An R-390 on a carrier?
- 41. Part of S.R.O.
- 42. What log entries were often written in, before computers
- 43. Sixty-one-forty-___
- 44. Foxhunt (abbr.)
- 45. Delight
- 46. Pertaining to a point of connection, in a circuit or network
- 50. Base predecessor?
- 51. W2 summer time
- 53. Dir. beaming Billings from Boise
- 54. Bad, if a tire...; good, if SWR...
- 57. Desk Kilowatt maker
- 59. Lots of Hertz, in the early days
- 62. ARRL Op-___ (dupe sheets were #6)

- 63. Receiver maker in HPM's time
- 64. Walk back and forth
- 65. Natural antenna support
- 66. A YL, after getting an X
- 67. Jet-setters' jets, once
- 68. Wisdom says that sometimes it's more

Down

- 1. 20 WPM, 300 Baud, and others
- 2. SP capital
- 3. To AMers it's the scratchy one from Heath
- 4. AMSAT partner
- 5. Glowing remnant
- 6. Effect of 5-down on a hot dog
- 7. Sometimes it's plus sometimes minus
- 8. AR, on CW

- 9. Some amplifiers, starting around 1970
- 10. "Who ___?"
- 11. Part of EAN, CAN, PAN
- 12. Future doc's exam
- 13. Docs of another kind
- 19. Arrangements or organizations - in databases
- 21. Like a ruling in HV-land
- 25. Layer, as with paint
- 27. Pac. div. ARRL sect.
- 28. Their dials are greenish-blue
- 29. Miamisburg, to 28-down
- 30. Maker of 9-down, once
- 31. Serial port pin
- 33. Code proficiency, say
- 35. Extra stable freq. ref.
- 36. Kind of logic gate
- 37. Another kind of logic gate

- 38. What the original ham band is called today
- 39. Linear (but not an amp), briefly
- 40. IN district
- 45. Honored or favored
- 47. Covet, as a big antenna farm
- 48. Collectors' ancestors?
- 49. Contacts (but not QSOs)
- 50. ___ King 500
- 51. VCR button
- 52. Prescribed amounts
- 54. Italy, No. Ireland, in prefixes
- 55. McCartney, Lancelot and others
- 56. Took a 707
- 58. Mfgr. of HRO revrs
- 60. Hz, to Hertz
- 61. A step higher in frequency than so's

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

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 old paint
- Replace broken/rotted wood

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
- 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 can bring to the Clubhouse for someone to use. For more information about these projects, please contact Jeff WB2ZBN.



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

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

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

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

GCARC Ham Radio Exam Preparation Classes Session II - 1800-2100 hrs

| Class Week | Class Date | License Class Study |
|--------------------|-------------------------|----------------------------|
| Week One | Monday, April 4, 2022 | Technician Class |
| Week One | Tuesday, April 5, 2022 | General Class |
| Week One | Friday, April 8, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Two | Monday, April 11, 2022 | Technician Class |
| Week Two | Tuesday, April 12, 2022 | General Class |
| Week Two | Friday, April 15, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Three | Monday, April 18, 2022 | Technician Class |
| Week Three | Tuesday, April 19, 2022 | General Class |
| Week Three | Friday, April 22, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Four | Monday, April 25, 2022 | Technician Class |
| Week Four | Tuesday, April 26, 2022 | General Class |
| Week Four | Friday, April 29, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Five | Monday, May 2, 2022 | Technician Class |
| Week Five | Tuesday, May 3, 2022 | General Class |
| Week Five | Friday, May 6, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Six | Monday, May 9, 2022 | Technician Class |
| Week Six | Tuesday, May 10, 2022 | General Class |
| Week Six | Friday, May 13, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Seven | Monday, May 16, 2022 | Technician Class |
| Week Seven | Tuesday, May 17, 2022 | General Class |
| Week Seven | Friday, May 20, 2022 | Amateur Extra Class |
| <hr/> | | |
| Week Eight | Monday, May 23, 2022 | Technician Class |
| Week Eight | Tuesday, May 24, 2022 | General Class |
| Week Eight | Friday, May 27, 2022 | Amateur Extra Class |
| <hr/> | | |
| VE Testing Session | Tuesday, May 31, 2022 | Technician Class |
| VE Testing Session | Tuesday, May 31, 2022 | General Class |
| VE Testing Session | Friday, June 3, 2022 | Amateur Extra Class |

April Tech Saturday Forum - April 9, 2022

The April Tech Saturday Forum drew quite a crowd, and a dozen or more members were present, together with one guest. As it turned out, that lone guest, invited by **Jerry Milden K2000**, submitted an application for club membership together with a check for his annual dues. The group got to see first-hand the current status and extent of construction involved in the grounding project, and was able to gather some information for best-case grounding and bonding of their own shacks at home. **Ron Block NR2B** was on hand to discuss the project and to answer members' questions regarding the grounding and bonding of their equipment.

Carl Wittig KD2YIF was present with his laptop and tape measure. Carl is working on a scaled CAD drawing of the floor plan of the Clubhouse, on which he will eventually label the locations of all electric wiring, antenna cabling, and network wiring, as well as the locations of outlets and service panels. Such a drawing will undoubtedly have considerable value in the future, and Carl is to be complimented for his efforts. His completed drawings will eventually find a home in the Club Documents area of the Members Only portion of the Club website.

Also to be complimented, and in a BIG way, are **Frank Romeo N3PUU** and **Alan Arrison KB2AYU** who are doing the hands-on work involved in this project. Without the efforts of such stalwart members, we would not have such a great Clubhouse, of which we can all be proud.

Jon Pearce WB2MNF was hard at work drawing up schematics of the interconnections between all of the equipment going back into the Satellite/VHF room when the construction is complete. Of course, this is important as the time to put the supporting wiring in place is *now*, while the walls are down. At the same time, **John O'Connell K2QA** was working on researching the equipment needed to upgrade our Clubhouse file server and graphics-crunching/video-compiling computer, with an eye towards a more compact and less power-hungry alternative.

Clockwise around the room,
starting at near left :

Lenny W2LJR
Mike K2MRP
Jon WB2MNF
Ron NR2B
Frank N3PUU
Anthony KD2RPI
John K2QA
Al KB2AYU
John K2ZA
Carl KD2YIF
Bill N2FZ
Jerry K2000



Photo taken by Chris AD2CS. Other members were present, but did not make it into the photo, including Charlie N2SRQ, John W2HUV, and Sheldon K2MEN.



ITU Celebrates 2022 World Amateur Radio Day



In recognition of World Amateur Radio Day, held on April 18, the International Telecommunication Union (ITU) published articles and social media posts highlighting various facets of ham radio. This included an ITU news interview (<https://bit.ly/3witApA>) with Philipp Springer, DK6SP, Chair of the International Amateur Radio Union (IARU) Region 1 Youth Working Group, and the article (<https://bit.ly/3shdtY3>), "How to become a radio 'ham' in the digital era," by Nick Sinanis, SV3SJ, ITU Study Group Advisor and head of the ITU radio station, 4U1ITU.

Springer, age 24, earned his ham radio license when he was 9 years old. In his interview with ITU News, he explained the variety of operating techniques and social connections is part of what motivates young people to become active in ham radio in an increasingly digital world. "It's technical parts like experimenting with radio science, soldering, developing, and building electronics, in practice and not just theory," he said. "Secondly, it's [the] social part: we are connecting with other communities, meeting radio operators from all around the world. Lastly, we connect with other cultures: we practice foreign languages, visit other countries, and get on the air at so-called 'expeditions.'" Springer is also featured in an ITU video on YouTube (<https://bit.ly/3P3NZHv>).

In his article, Sinanis explained that "ITU plays a key role in amateur radio by overseeing the standardization and regulatory processes of the radiocommunication sector (ITU-R), with special emphasis on its utility in emergency communications." The ITU is the United Nations specialized agency for information and communication technologies, and the International Amateur Radio Union (IARU) contributes to the work of the ITU as a Sector Member. World Amateur Radio Day marks the annual anniversary of the IARU, formed in Paris on April 18, 1925.

The ITU also celebrated World Amateur Radio Day via posts on Twitter :

- twitter.com/ITUradiocomms/status/1515964908894142470
- twitter.com/ITU/status/1515967346334179336
- twitter.com/ITUradiocomms/status/1516077442850557953
- twitter.com/ITUradiocomms/status/1516394912509530118
- twitter.com/ITU/status/1516392416558862343



Thanks to Dave Sumner, K1ZZ

Article Credit : The ARRL Letter for April 21, 2022 - www.arrl.org

Philipp Springer, DK6SP (on the right), is Chair of the IARU Region 1 Youth Working Group. He is seen promoting Youngsters On the Air (YOTA) at the 2019 Dayton Hamvention. [Bob Inderbitzen, NQ1R, photo]





Get Out of Your Radio Comfort Zone - Fox Hunt XXIV

By Jim Wright, N2GXJ

You've heard about these things. How about trying one?

Get out of your radio comfort zone. Join us for a fun radio related "hide and seek" game!

It can be educational too, as you'll probably learn a thing or two about your hand held radio, while picking up some useful skills. Such skills may help you when trying to track down sources of unwanted signals or interference you may encounter on the ham bands. (But really, it is about getting out of the house and having some fun!)

What are we talking about? Hidden transmitter fox hunts, of course!

So when is the next one? Good news, you don't have long to wait! The 2022 edition of the "**Spring Has Sprung**" hidden radio transmitter hunt will be from 1pm-2pm on Sunday, May 15, 2022. Since Vinnie N4NYY was first to find the transmitter last time, he has honors of being the "Fox" to hide it this time. Let's team up and "outfox" the fox! Up for the challenge?

Check in with us on our 2 meter repeater (via RF or EchoLink) by 1pm so we know who is hunting, and then the Fox will switch on the transmitter, and we'll switch over to the hunt frequency to try and hear it. Using whatever approach works for you, and knowing that as you get closer to the transmitter the signal will be stronger, try and "home-in" on the hidden transmitter once it has been activated. Based on the check-in list, after about an hour, if anyone is still hunting, they'll be talked in to the finish on the hunt frequency so that everyone can pose for a group picture and exchange hunt stories. To give us a fighting chance of finding it within the hour, Vinnie will email to all registered Club members via the Club email reflector the day before, to narrow the hunt area here in Gloucester County NJ to a few square miles ahead of time. Can we count you and your family as being in on this one?

Hunt frequency: 146.565 MHz (3rd harmonic 439.695 MHz) (FM Simplex). Want to read more? Go To : <https://gloucestercountync.weebly.com/gcnc-fox-hunts.html>



The Fox Hunt XXIII "Hunt Team" : Mike KG4JYA, Vinnie N4NYY, Sheldon K2MEN, Marc WM2Y, Al KB2AYU, Rich KD2WDM, Doug KD2VQA, Frank N3PUU, and "The Fox" Jim N2GXJ - Fox Hunt XXIII took place on 02/06/2022

2019-2023 Element 3 General Class License Question Quiz

This month we continue with Subelement G9D : Specialized Antennas (Answers on 'Last Page Calendar')

G9D01 Which of the following antenna types will be most effective as a Near Vertical Incidence Skywave (NVIS) antenna for short-skip communications on 40 meters during the day?

- A. A horizontal dipole placed between 1/10 and 1/4 wavelength above the ground
- B. A vertical antenna placed between 1/4 and 1/2 wavelength above the ground
- C. A left-hand circularly polarized antenna
- D. A right-hand circularly polarized antenna

G9D02 What is the feed-point impedance of an end-fed half-wave antenna?

- A. Very low
- B. Approximately 50 ohms
- C. Approximately 300 ohms
- D. Very high

G9D03 In which direction is the maximum radiation from a portable VHF/UHF "halo" antenna?

- A. Broadside to the plane of the halo
- B. Opposite the feed point
- C. Omnidirectional in the plane of the halo
- D. Toward the halo's supporting mast

G9D04 What is the primary purpose of antenna traps?

- A. To permit multiband operation
- B. To notch spurious frequencies
- C. To provide balanced feed-point impedance
- D. To prevent out-of-band operation

G9D05 What is an advantage of vertical stacking of horizontally polarized Yagi antennas?

- A. It allows quick selection of vertical or horizontal polarization
- B. It allows simultaneous vertical and horizontal polarization
- C. It narrows the main lobe in azimuth
- D. It narrows the main lobe in elevation

G9D06 Which of the following is an advantage of a log periodic antenna?

- A. Wide bandwidth
- B. Higher gain per element than a Yagi antenna
- C. Harmonic suppression
- D. Polarization diversity

G9D07 Which of the following describes a log periodic antenna?

- A. Element length and spacing vary logarithmically along the boom
- B. Impedance varies periodically as a function of frequency
- C. Gain varies logarithmically as a function of frequency
- D. SWR varies periodically as a function of boom length

Element 3 General Class Quiz - Continued on page 31

G9D08 How does a "screwdriver" mobile antenna adjust its feed-point impedance?

- A. By varying its body capacitance
- B. By varying the base loading inductance
- C. By extending and retracting the whip
- D. By deploying a capacitance hat

G9D09 What is the primary use of a Beverage antenna?

- A. Directional receiving for low HF bands
- B. Directional transmitting for low HF bands
- C. Portable direction finding at higher HF frequencies
- D. Portable direction finding at lower HF frequencies

G9D10 In which direction or directions does an electrically small loop (less than 1/3 wavelength in circumference) have nulls in its radiation pattern?

- A. In the plane of the loop
- B. Broadside to the loop
- C. Broadside and in the plane of the loop
- D. Electrically small loops are omnidirectional

G9D11 Which of the following is a disadvantage of multiband antennas?

- A. They present low impedance on all design frequencies
- B. They must be used with an antenna tuner
- C. They must be fed with open wire line
- D. They have poor harmonic rejection

G9D12 What is the common name of a dipole with a single central support?

- A. Inverted V
- B. Inverted L
- C. Sloper
- D. Lazy H

G9D13 What is the combined vertical and horizontal polarization pattern of a multi-wavelength, horizontal loop antenna?

- A. A figure-eight, similar to a dipole
- B. Four major loops with deep nulls
- C. Virtually omnidirectional with a lower peak vertical radiation angle than a dipole
- D. Radiation maximum is straight up



Hawaii ARES Drill Tests All Communications

The Hawaii Amateur Radio Emergency Service® (ARES®) conducted an operational readiness drill on April 16 to evaluate their emergency communications abilities if severe weather were to hit the state and disable regular communications.

The exercise simulated a 4-day period of catastrophic rain and wind covering the Hawaiian Islands, from Kauai to the Big Island, which took out power, internet, and cell phone towers. State, local, and federal agencies participated in the exercise to evaluate ARES members and non-members for radio operations and procedures.

ARRL Director of Emergency Management Josh Johnston, KE5MHV, expressed that it's important for all agencies to work together during emergencies. "It is great to see ARES work this closely with local and state government agencies to overcome obstacles and provide emergency communications for the public," Johnston said. "Hawaii faces challenges that are different than other areas, but the general practice of preparing and exercising is the same anywhere you go."

The Hawaii Office of Homeland Security (OHS) participated in the drill, and OHS Administrator Frank Pace echoed the importance of all agencies working together. "We support the statewide training of amateur radio operators as part of the Incident Command System (ICS) structure, and the deployment of radio stations operated by volunteers, in preparing for disaster situations," he said.

There are 3,800 amateur radio operators in Hawaii, and OHS Statewide Interoperability Coordinator Everett Kaneshige said that coordinating all efforts is critical. "It is exciting to see the incorporation of innovative technology, such as the amateur radio-developed GPS software mapping capabilities," said Kaneshige. "Having multiple outlets for communication during a crisis is critical."

An article about the exercise was published by **KITV 4 Island News** (<https://bit.ly/3snh6fo>).

To learn more about amateur radio and ARES in Hawaii, visit www.hamradiohawaii.com or the **Ham Radio Hawaii Facebook group**. <http://www.facebook.com/groups/HamRadioHawaii>.

Article Credit : The ARRL Letter for April 21, 2022 - www.arrl.org



OPERATORS NEEDED!

Reach out to **Vinnie Sallustio N4NYY** if you want to try this fun and rewarding activity.

Help *your* Club to earn those precious points!

All members are welcome to help out in this massive effort.

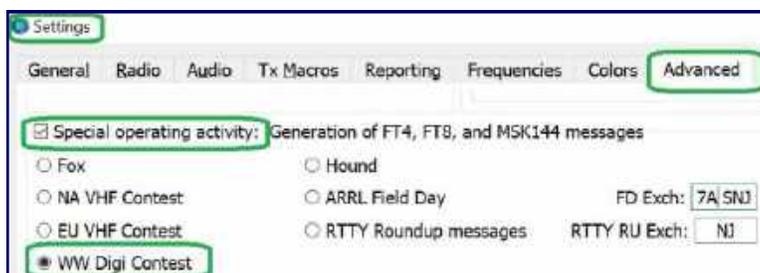
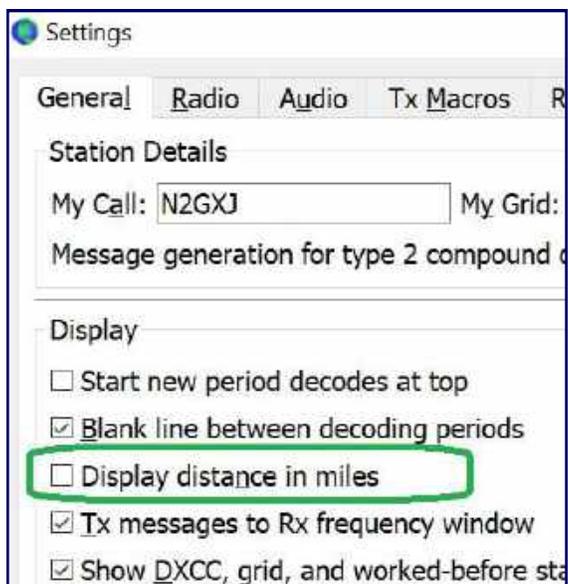
How You Can Score Points For Your Club

By Jim Wright N2GXJ

If you've ever made an FT8 contact before, we could really use your help in June to get some points for our Club. Can you help us, please?

As a warm-up for Field Day, have you ever heard of the ARRL International Digital Contest? Probably not, as it is brand new, designed to separate all the non-RTTY modes into their own contest, separate from the existing RTTY contests. Similar to the UHF/VHF contest, where Gloucester Co ARC has gained national recognition, <https://contests.arrl.org/ContestRules/Digital-Rules.pdf> indicates this will be an Affiliated Club competition where the ARRL will let us combine scores from multiple home stations to get a combined club competition score in this new contest as well.

What is this contest, and how will it work? It is a digital contest, for all modes except RTTY. You are allowed to make one digital contact per band with any callsign in the USA or anywhere on the planet for credit. The exchange is simply your callsign and maidenhead grid square, same as you usually use when using FT8 (or FT4). The log checking process will check your QSOs and calculate your score, which is based on 1 point per unique contact on the band plus 1 point for each (rounded up) 500 KM of distance between your FM29 maidenhead grid square and the contact's grid square. Configuring WSJT is simple for the contest, as shown in the configuration settings->advanced tab illustrated below.



As the contest is limited to the digital portions of the 1.8, 3.5, 7, 14, 21, 28, and 50 MHz bands, you'll need a General or better license to participate, unless you constrain yourself to the digital frequencies on the 28 and 50 MHz bands, or team up with a control operator who has other band privileges.

How can I help?

To help us out, all you need to do is make a few contacts, using your own callsign during the contest, and then select the following club name when submitting your score : "Gloucester Co ARC".

As one of the premier clubs in the USA, and possibly the world, participating can be fun, and adding your score this way is easy. As a group effort, every point helps. Maybe you'll consider tossing a few points towards your Club this way?

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



President Tony Starr K3TS opened the meeting @ 1930 Hours with the Pledge of Allegiance to the Flag.

ATTENDANCE :

- Members : 28 members in-person, 17 members on ZOOM
- Visitors : **Bill Mollenhauer N2FZ** (on ZOOM) from Pitman

The minutes from the February 2, 2022 General Membership Meeting, as published in The CrossTalk, were approved.

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

- Income : \$3,177, mostly from dues
- Expenses : \$1,478
- Net Gain : \$1,700

About 30 members have renewed following the recent email reminder, but approximately 30 have still not renewed, and the cutoff date is today. **Chris Prioli AD2CS** will update the GCARC roster to reflect current paid membership.

Total in all accounts does not include the rebuilding fund. There is approximately \$7,000 remaining in the rebuilding fund. The Treasurer's Report was accepted.

CLUBHOUSE : Alan Arrison KB2AYU acknowledged the small group that works on the Clubhouse each Saturday. The VHF room has been stripped to the studs, the hole for the old air conditioner has been covered and the exterior siding has been fixed. Some wiring is underway and tower work remains to be done. The May Tech Saturday will be replaced with a Clubhouse Work Saturday.

DX and CONTEST COMMITTEE : Tony Starr K3TS noted that 10 Meters has been doing well lately with European Stations coming thru and the solar flux has been as high as 150. The Polish DX Contest was cancelled due to the current refugee problem but the OK/OM (Czech) SSB contest is on for this weekend. Also, the Florida QSO Party takes place later this month.

CLUB NETS : Jim Clark KA2OSV said only 3 checked in to the 10 Meter Net on Tuesday evening. **Alan Arrison KB2AYU** and **Chris Prioli AD2CS** said the Thursday Evening and Tuesday Noon Nets were going well. **Gary Mirkin WA3SVW** said there would be one more DIGI Net in May, then we will take a sabbatical.

REPEATERS : Frank Romeo N3PUU reported that the Repeater Committee visited the site on March 30. The 440 repeater is offline and is being bench tested by **John Zaruba K2ZA**. The feedline to the 2 Meter antenna was faulty and this was resolved by switching to the feedline for the 440 repeater. Jumper cables were upgraded and firmware was updated. The 2 Meter repeater is now working much better than before on FM and we can work the repeater with a HT from within the Clubhouse. However C4FM is not working following the firmware update so John will contact Yaesu for a solution

April 2022 General Membership Meeting Minutes - Continued on page 35

EDUCATION : The second round of licensing classes started Monday, April 4. These classes are being conducted via ZOOM due to ongoing work at the Clubhouse for the Grounding Project. **Chris Prioli AD2CS** reports 7 for the Technician Classes, 7 for General and 13 signed up for Extra.

FIELD DAY : Chairman **Vinnie Sallustio N4NYY** has begun sending out emails asking for volunteers and operators. In particular, he wants to hear from 40 Meter CW operators and wants to have a 10 Meter station this year. **Karl Frank W2KBF** commented that the GOTA station is not a worthwhile effort if limited to bands that are dead and that maybe we should try to attract interest from the Wine Festival attendees. Vinnie pointed out that 10 Meters may be good this year for GOTA, particularly during daylight hours, and that 4H has not heard about any plans for the Wine Festival this year.

HAMFEST : **Sheldon Parker K2MEN** noted the date is set for Sunday, September 11, 2022 and he will apply to ARRL for approval. More planning will take place after Field Day.

TECHNICAL COMMITTEE : **Jonathan Pearce WB2MNF** showed photos of progress with the VHF Room Remodel and plans for the VHF and HF room configurations. The plan is to enhance functionality, so there will be more room for more people to work on their projects. The Winlink RMS stations (HF and VHF) are working well, all running on 12 volts, including the control computer, and an auto tuner has been added to permit the HF RMS to operate on multiple bands from a single wire antenna. The Local and Remote HF stations remain available.

The plans for the next few General Meetings and Tech Saturdays are :

- **April :** Following the General Membership Meeting (tonight), **Ron Block NR2B** will review the Grounding Project, followed by a review of the Grounding Project during Tech Saturday at the Clubhouse
- **May :** **Chris Prioli AD2CS** will discuss Troubleshooting Electrical Equipment following the General Membership Meeting and Tech Saturday will be a Session for Working on the Clubhouse
- **June :** **Jim Wright N2GXJ** will provide an overview of Field Day following the General Membership Meeting and the following Tech Saturday will be a Field Day Organization Session

OLD BUSINESS : **Gary Reed N2QEE** said the VE sessions are “going like gangbusters” with licenses being issued as soon as the day after tests are submitted to the FCC. On April 19, the FCC will begin charging \$35 for new licenses and renewals but NOT for upgrades and administrative changes, such as changes of name or address. Under the new system, the FCC will notify successful applicants by email and they will have 10 days to pay the bill.

NEW BUSINESS : **Tony Starr K3TS** noted that **Ray Martin W2RM** was hospitalized over the weekend. **Chris Prioli AD2CS** spoke with **Jeff Garth WB2ZBN** early today and learned that Jeff is scheduled to return home on Sunday. **Bob Keogh KD2NEC** and **John Zaruba K2ZA** will be bringing a POD of radio equipment to the next Tech Saturday. This POD was purchased on behalf of our County OEM by Cooper Hospital and has not been used for some time, so we want to dust off this equipment and become more familiar with its use.

Following the meeting tonight, **Ron Block NR2B** will review the W2MMD Clubhouse Grounding Project.

President Tony Starr K3TS closed the meeting @ 2040 Hours.

Respectfully Submitted,
Karl Frank W2KBF, Recording Secretary

Gloucester County Amateur Radio Club

Board of Directors Meeting Minutes

Wednesday, April 20, 2022



President Tony Starr K3TS opened the meeting @ 1906 hours.

ATTENDANCE :

- President **Tony Starr K3TS**
- Vice President **Jon Pearce WB2MNF**
- Treasurer **Alan Arrison KB2AYU**
- Recording Secretary **Karl Frank W2KBF**
- Corresponding Secretary **Ron Block NR2B**
- Director **Jeff Garth WB2ZBN** (*attending by ZOOM*)
- Director **Jim Clark KA2OSV**
- Director **Chuck Colabrese WA2TML**
- Director **Herb Dyer KT2Y**
- Director **Bill Price NJ2S**
- Trustee **Jim Wright N2GXJ** (*attending by ZOOM*)
- Member **Frank Romeo N3PUU**
- Member **John O'Connell K2QA**
- Member **Chris Prioli AD2CS**
- Member **Vinnie Sallustio N4NYY**
- Member **John Hill W2HUV**

MINUTES : The minutes of the March BoD Meeting were summarized by **Karl Frank W2KBF**.

NEW MEMBER APPLICATIONS :

The following applications were received and approved :

- Adam Duncan KD2ZCM
- Robert Saunders KC2UYS
- Robert Brown KD2YUG
- Joshua Bradway (no call)
- Robert Caruso KC3TZQ
- William Mollenhauer N2FZ
- Charles Lessley KC3TZR
- Francisco Reyes KD2ZHA
- Thomas Distelcamp KC2GYC

TREASURER : Alan Arrison KB2AYU reported YTD Budgeted Items :

- Income : \$3,803
- Expenses : \$1,470
- Net Gain : \$2,333
- Total in all accounts includes the rebuilding fund.

The Treasurer's Report was accepted.

April 2022 Board of Directors Meeting Minutes - Continued on page 37

CLUBHOUSE : **Alan Arrison KB2AYU** reported that approximately \$1100 is left over from the Grounding Project Funds that were approved last year. **Frank Romeo N3PUU** said this would be more than adequate to finish grounding in the VHF room but additional funds will be needed to purchase new paneling, insulation and wood for custom furniture. Frank will provide a cost estimate. Alan said we will need “all hands on deck” for tower work, which will involve some welding, painting and installation of lifting cables. In addition, the Clubhouse will need a new roof in the near future and the materials are estimated to cost about \$5000. Alan will obtain quotes from roofers and **Tony Starr K3TS** said we may want to wait until after Hamfest to see how much money we have.

CLUB NETS : **Jim Clark KA2OSV** said only 4 Club members have been checking in to the 10 Meter net lately.

DX and CONTESTS : **Tony Starr K3TS** said that 10 Meters has been open lately. The Florida QSO Party will take place the last weekend of this month and the ARRL International Digital Contest is scheduled for the first weekend of June.

REPEATERS : The 2 Meter Repeater is working better (with FM) now that a bad feedline was swapped out but C4FM stopped working following a firmware upgrade. The 440 repeater is still off the air and being tested by **John Zaruba K2ZA**.

EDUCATION COMMITTEE : **Chris Prioli AD2CS** reported that 14 have signed up for the Extra Licensing Classes with 7 for General and 7 for Technician Classes. After this cycle there will be a break from classes over Summer. Going forward, the Education Committee will coordinate with the Digital Training Net run by **Gary Mirkin WA3SVW**.

HAMFEST : **Bill Price NJ2S** received confirmation that the Boy Scout Troop from West Deptford will handle the food service this year.

FIELD DAY : **Vinnie Sallustio N4NYY** is still looking for operators. No decision has been made regarding a GOTA station or Public Information Table. Rather than put new operators on GOTA, Vinnie would prefer to show them how to operate one of the main stations, e.g. on 40 Meters. Also, we need to get a checklist from **Jeff Garth WB2ZBN** of things that need to be done at the Clubhouse in preparation for Field Day. It appears that the Wine Festival will not occur this year so we may not have space issues.

Jim Wright N2GXJ will provide an Overview and Introduction to Field Day (i.e. How to get on the air and make contacts) following the General Membership Meeting in June and the Tech Saturday in June is reserved for Field Day Planning.

TECHNICAL COMMITTEE : **Jonathan Pearce WB2MNF** said that a team of Engineering Students from Rowan University has contacted the Club for advice on using GPS to track a rocket that they will launch later this year. The Rowan group visited the Clubhouse last Saturday and will return again next Saturday, bringing the 9-foot rocket.

OLD BUSINESS : Chuck Colabrese WA2TML reviewed the Club's Insurance Policy and confirmed that it does provide liability coverage for Club Officers, Directors and Members. The Clubhouse and equipment within the Clubhouse is insured but not the towers and antennas outside. We may consider obtaining ARRL Insurance for the new towers and antennas once they are in place.

John O'Connell K2QA reported that the Magic Jack line is now in place with four wireless extensions that can cover the entire Clubhouse.

An article on the GCARC Grounding Project, written by Ron Block NR2B, is tentatively scheduled to appear in the July issue of QST.

NEW BUSINESS : John Hill W2HUV noted that both the local and remote HF stations are up and running but he has had trouble running FT8 by remote. The amplifier is available only for the remote station because we do not have a suitable transfer switch. John said he is willing to schedule time with Club members who contact him and want to learn how to use the HF stations. This will be noted in The Crosstalk.

The meeting was adjourned @ 2049 hours.

Respectfully Submitted,
Karl Frank W2KBF,
GCARC Recording Secretary

The Considerate Operator's Frequency Guide

The following frequencies are generally recognized for certain modes or activities (all frequencies are in MHz) during normal conditions. These are not regulations and occasionally a high level of activity, such as during a period of emergency response, DXpedition or contest, may result in stations operating outside these frequency ranges.

Nothing in the rules recognizes a net's, group's or any individual's special privilege to any specific frequency. Section 97.101(b) of the Rules states that "Each station licensee and each control operator must cooperate in selecting transmitting channels and in making the most effective use of the amateur service frequencies. No frequency will be assigned for the exclusive use of any station." No one "owns" a frequency.

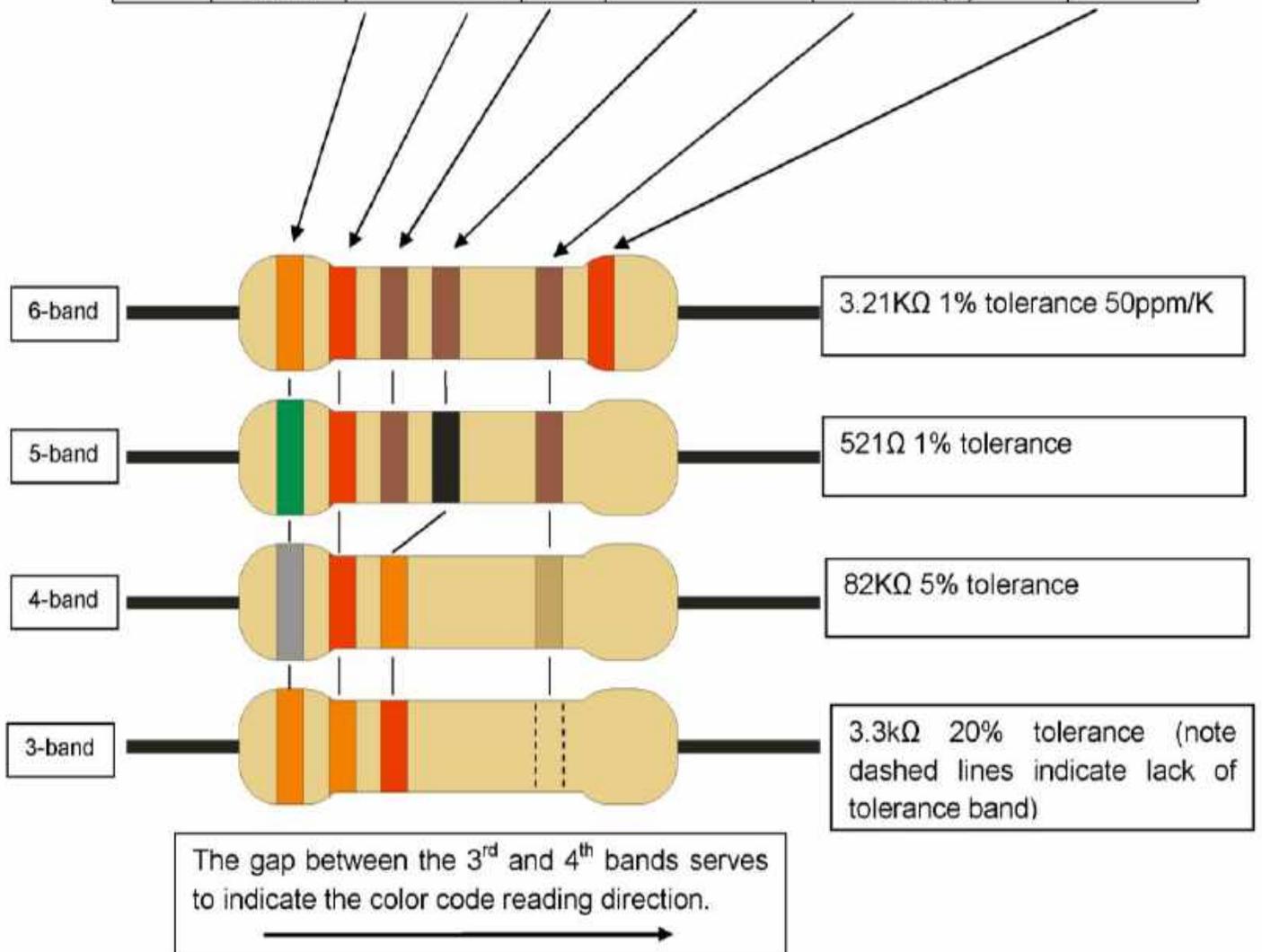
It's good practice — and plain old common sense — for any operator, regardless of mode, to check to see if the frequency is in use prior to engaging operation. If you are there first, other operators should make an effort to protect you from interference to the extent possible, given that 100% interference-free operation is an unrealistic expectation in today's congested bands.

| Frequencies | Modes/Activities | Frequencies | Modes/Activities |
|----------------|--|---------------|--|
| 1.800-2.000 | CW | 14.233 | D-SSTV |
| 1.800-1.810 | Digital Modes | 14.236 | Digital Voice |
| 1.810 | CW QRP calling frequency | 14.285 | QRP SSB calling frequency |
| 1.843-2.000 | SSB, SSTV and other wideband modes | 14.286 | AM calling frequency |
| 1.910 | SSB QRP | 18.100-18.105 | RTTY/Data |
| 1.995-2.000 | Experimental | 18.105-18.110 | Automatically controlled data stations |
| 1.999-2.000 | Beacons | 18.110 | IBP/NCDXF beacons |
| | | 18.162.5 | Digital Voice |
| 3.500-3.510 | CW DX window | 21.060 | QRP CW calling frequency |
| 3.560 | QRP CW calling frequency | 21.070-21.110 | RTTY/Data |
| 3.570-3.600 | RTTY/Data | 21.090-21.100 | Automatically controlled data stations |
| 3.585-3.600 | Automatically controlled data stations | 21.150 | IBP/NCDXF beacons |
| 3.590 | RTTY/Data DX | 21.340 | SSTV |
| 3.790-3.800 | DX window | 21.385 | QRP SSB calling frequency |
| 3.845 | SSTV | 24.920-24.925 | RTTY/Data |
| 3.885 | AM calling frequency | 24.925-24.930 | Automatically controlled data stations |
| 3.985 | QRP SSB calling frequency | 24.930 | IBP/NCDXF beacons |
| 7.030 | QRP CW calling frequency | 28.060 | QRP CW calling frequency |
| 7.040 | RTTY/Data DX | 28.070-28.120 | RTTY/Data |
| 7.070-7.125 | RTTY/Data | 28.120-28.189 | Automatically controlled data stations |
| 7.100-7.105 | Automatically controlled data stations | 28.190-28.225 | Beacons |
| 7.171 | SSTV | 28.200 | IBP/NCDXF beacons |
| 7.173 | D-SSTV | 28.385 | QRP SSB calling frequency |
| 7.285 | QRP SSB calling frequency | 28.680 | SSTV |
| 7.290 | AM calling frequency | 29.000-29.200 | AM |
| 10.130-10.140 | RTTY/Data | 29.300-29.510 | Satellite downlinks |
| 10.140-10.150 | Automatically controlled data stations | 29.520-29.580 | Repeater inputs |
| 14.060 | QRP CW calling frequency | 29.600 | FM simplex |
| 14.070-14.095 | RTTY/Data | 29.620-29.680 | Repeater outputs |
| 14.095-14.0995 | Automatically controlled data stations | | |
| 14.100 | IBP/NCDXF beacons | | |
| 14.1005-14.112 | Automatically controlled data stations | | |
| 14.230 | SSTV | | |

ARRL band plans for frequencies above 28.300 MHz are shown in *The ARRL Repeater Directory* and on www.arrl.org.

Resistor Color Code Implementation

| Color | 1 st Digit | 2 nd Digit | 3 rd Digit | Multiplier | Tolerance % | Temp Coeff ppm/K |
|--------|--|-----------------------|-----------------------|------------|-------------|------------------|
| Black | 0 | 0 | 0 | X1 | | 250 (U) |
| Brown | 1 | 1 | 1 | X10 | 1 (F) | 100 (S) |
| Red | 2 | 2 | 2 | X100 | 2 (G) | 50 (R) |
| Orange | 3 | 3 | 3 | X1K | | 15 (P) |
| Yellow | 4 | 4 | 4 | X10K | | 25 (Q) |
| Green | 5 | 5 | 5 | X100K | 0.5 (D) | 20 (Z) |
| Blue | 6 | 6 | 6 | X1M | 0.25 (C) | 10 (Z) |
| Violet | 7 | 7 | 7 | X10M | 0.1 (B) | 5 (M) |
| Grey | 8 | 8 | 8 | X100M | 0.05 (A) | 1 (K) |
| White | 9 | 9 | 9 | X1G | | |
| Gold | 3 rd digit is for 5 and 6 band resistors only | | 0.1 | X0.1 | 5 (J) | |
| Silver | | | 0.01 | X0.01 | 10 (K) | |
| Blank | | | | | 20 (M) | |



**ARRL DX SSB Contest
March 5, 2022**

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

**Class : SOUAB HP
QTH : SNJ
Operating Time (hrs) : 26
Location : USA**

Summary :

| Band | QSOs | Mults |
|---------------|---------|-------|
| ----- | | |
| 160 : | 8 | 8 |
| 80 : | 86 | 46 |
| 40 : | 124 | 57 |
| 20 : | 243 | 84 |
| 15 : | 252 | 81 |
| 10 : | 70 | 37 |
| ----- | | |
| Total : | 783 | 313 |
| Total Score : | 785,237 | |

Club : Frankford Radio Club

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Comments :

*Rig: FTDX-9000D/OM Power 2000A+ amplifier
Antennas: all wires 160m Inverted L over 100ft tree 80m (75m)
separate dipole @ 90ft 40m dipole @ 95ft 20m delta loop @
65ft 10m/15m homebrew fan dipole.*

Thanks to all who gave me QSOs! Expected better condx w/120sft but was unsuccessful CQing, even on 80m where my high dipole is loud. All S&P. Only worked a couple stations on 6 bands because 160 condx were so poor here, only 8 QSOs and only 1 EU, IO5O. Great to work 7Q8M on 3 bands, and 5Z4VJ on 3 bands. Pleased with the wire performance, but much more difficult on SSB than CW, especially the high bands. Did not make my goal of 1+ meg, difficult to do if not able to run.

73, Darrell AB2E

**CQWW WPX SSB Contest
March 26, 2022**

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

**Class : SOAB HP
Class Overlay : TB-Wires
QTH : NJ
Operating Time (hrs) : 8
Location : USA**

Summary :

| Band | QSOs |
|------------|------|
| ----- | |
| 80 : | 155 |
| 40 : | 341 |
| 20 : | 66 |
| 15 : | 59 |
| 10 : | 23 |
| ----- | |
| Total : | 644 |
| Prefixes : | 359 |

Total Score : 539,218

Club : Frankford Radio Club

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Comments :

*Rig: FTDX-9000D/OM Power 2000A+
Antennas: All wires 80m Dipole @90FT 40m Dipole @85FT
20m Delta Loop @65FT 10m/15m Homebrew Fan Dipole @
60ft*

Thanks to everyone for all the Qs! Regrettably, I could only find 8 hrs to operate this weekend, mostly at night except for the last 2 hours of the contest Sunday and 1 hour late afternoon Sat. The last 2 hrs I had an amazing run, actual hour 210, and at times the rate meter on N1MM hit 275/hr. I've never seen rates that good in a contest from home before, having only had those rates at V26B. Condx were amazing, I worked almost everyone I called first call, even on 10,15,20 with the wires. I also had an amazing 80m run Sat night at EU sunrise, and over 100 6 point EU stations in the log. Activity appears to grow in this contest, and each year I'm amazed at the number of casual operators jumping in (evidenced by low numbers on Sun, typically under 100). Great to work so many friends worldwide. 73 Darrell AB2E



The latest episode of the ARRL [On the Air](#) podcast (Episode 28) features a discussion of digital multimeters with practical usage examples and shopping tips. The latest edition (Episode 58) of the ARRL [Eclectic Tech](#) podcast features a discussion with author Nick Tusa, K5EF, about his new book *Wes Schum - Amateur Radio's Unsung Hero*. The On the Air and Eclectic Tech podcasts are sponsored by Icom. Both podcasts are available on iTunes (iOS) and Stitcher (Android), as well as on Blubrry - [On the Air Eclectic Tech](#).

Article Credit : The ARRL Letter for April 21, 2022 - www.arrl.org

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



Unusual Band Operating Rules

30 Meters

Amateurs may transmit only CW and data signals on the 30 meter band. Operations are limited to 200W maximum output power. Phone and image signals are prohibited.

60 Meters

All operation is limited to five defined channels within the band, with center frequencies as follows : 5332 kHz, 5348 kHz, 5358.5 kHz, 5373 kHz, and 5405 kHz. Each channel is 2.8 kHz wide and is centered on the channel frequencies above. USB voice is the only phone mode permitted, with the carrier centered 1.5 kHz below the channel center frequency. RTTY and data signals are permitted as USB emissions centered on the channel center frequency, with a bandwidth not to exceed 2.8 kHz. CW is permitted with the carrier set to the channel center frequency. Maximum output power is 100W ERP relative to a dipole. Automatic control of RTTY and data emissions is not permitted. Coming Soon - An allocation of 5351.5 kHz to 5366.5 kHz at 15W EIRP maximum.

630 Meters

Maximum output power is 5W EIRP

2200 Meters

Maximum output power of 1W EIRP. Note that both the 630 meter band and the 2200 meter band require prior registration of your call sign and station coordinates with the Utilities Technology Council (UTC) at least 30 days in advance of operations. If no reply is received within that 30-day window, stating that you are located within 1 km of a PLC system, you are clear to operate after the end of the 30 day period.

| 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 |
| Vinnie Sallustio, N4NYY | 228 |
| Tony Starr, K3TS | 211 |
| Dennis Sandole, K2SE | 204 |
| Jim Wright, N2GXJ | 188 |
| Sheldon Parker, K2MEN | 174 |
| Matt Wilson K2MFW | 161 |
| Christopher Wawak, KC2IEB | 141 |
| Howard Marder, WA2IBZ | 133 |
| Eric Morris, N2BRJ | 127 |
| Phil Nunzio, WA3RGY | 120 |
| Bart Kleczynski, AC2PT | 106 |
| Chuck Capasso, WB2PGE | 103 |
| Harry Strahlendorf Jr W3DNQ | 87 |
| Curt Myers, K2CWM | 73 |
| Jim Clark, KA2OSV | 68 |
| Lee Marino, N2LAM | 35 |
| Updated As Of 04/20/22 | |

Crossword Puzzle Answer - Puzzle on Page 24

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

May Birthdays

Congratulations to our members who are celebrating a birthday this month

Chuck Capasso, WB2PGE
Dominick Cociolone
John Conroy, NZ2H
Holden Correia-Fisher, KD2JPV
Robert Demola, KD2GFL
Leo Hafele, KD2YPZ
Carmen Inverso, WA2TRS
Brian Jones, KD2BXD
William Jones, KD2FHM
Joseph Lee Jr, N2BNJ
Darrell Neron, AB2E (Repeater Trustee)
Tony Starr, K3TS (President 2021-2022)

In Memoriam - May Birthdays

Silent Keys :

David K Allin, N2TVR
Walton T Ashton Jr, WB2OYQ
Burriss W Bauer (NCS)
Frank J DiSanto Jr, N2RHT
Bertha Farr Eggert, WA4BMC
Hyman M Friend, KB2GH
Richard H Hackett, AA2RK
Edward C Leibfarth, WA4AEX
James A Montagno, N2WHY
Roy Pitman "Bud" Peterson Jr, K2GHZ
(Club Co-Founder, Charter Member)
James J Scannell Jr, KB2GTT
Joseph G Schneider, KB2SVJ



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
Chris Prioli, AD2CS at [cprioli <at> gmail <dot> com](mailto:cprioli@gmail.com).

Submission deadline for the June 2022 issue : Sunday, May 15, 2022

Club Website www.w2mmd.org

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

May 2022 Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

May 2022

| | |
|---------------------------------------|--|
| + AGCW QRP/QRP Party | 1300Z-1900Z, May 1 |
| + K1USN Slow Speed Test | 0000Z-0100Z, May 2 |
| + ICWC Medium Speed Test | 1300Z-1400Z, May 2 |
| + OK1WC Memorial | 1630Z-1729Z, May 2 |
| + ICWC Medium Speed Test | 1900Z-2000Z, May 2 |
| + Worldwide Sideband Activity Contest | 0100Z-0159Z, May 3 |
| + ARS Spartan Sprint | 0100Z-0300Z, May 3 |
| + ICWC Medium Speed Test | 0300Z-0400Z, May 3 |
| + RTTYOPS Weeksprint | 1700Z-1900Z, May 3 |
| + Phone Weekly Test | 0230Z-0300Z, May 4 |
| + A1Club AWT | 1200Z-1300Z, May 4 |
| + CWops Test | 1300Z-1400Z, May 4 |
| + VHF-UHF FT8 Activity Contest | 1700Z-2000Z, May 4 |
| + Mini-Test 40 | 1700Z-1759Z, May 4 |
| + Mini-Test 80 | 1800Z-1859Z, May 4 |
| + CWops Test | 1900Z-2000Z, May 4 |
| + MIE 33 Contest | 2300Z, May 4 to 0300Z, May 5 |
| + Walk for the Bacon QRP Contest | 0000Z-0100Z, May 5 and 0200Z-0300Z, May 6 |
| + CWops Test | 0300Z-0400Z, May 5 |
| + CWops Test | 0700Z-0800Z, May 5 |
| + RTTYOPS Weeksprint | 1700Z-1900Z, May 5 |
| + NRAU 10m Activity Contest | 1700Z-1800Z, May 5 (CW) and 1800Z-1900Z, May 5 (SSB) and 1900Z-2000Z, May 5 (FM) and 2000Z-2100Z, May 5 (Dig) |
| + EACW Meeting | 1900Z-2000Z, May 5 |
| + SKCC Sprint Europe | 1900Z-2100Z, May 5 |
| + NCCC RTTY Sprint | 0145Z-0215Z, May 6 |
| + NCCC Sprint | 0230Z-0300Z, May 6 |
| + K1USN Slow Speed Test | 2000Z-2100Z, May 6 |
| + 10-10 Int. Spring Contest, CW | 0001Z, May 7 to 2359Z, May 8 |
| + RCC Cup | 0300Z-0859Z, May 7 |
| + Microwave Spring Sprint | 0800-1400 local, May 7 |
| + F9AA Cup, Digi | 1200Z, May 7 to 1200Z, May 8 |
| + ARI International DX Contest | 1200Z, May 7 to 1159Z, May 8 |
| + SKCC Weekend Sprintathon | 1200Z, May 7 to 2400Z, May 8 |
| + 7th Call Area QSO Party | 1300Z, May 7 to 0700Z, May 8 |
| + Indiana QSO Party | 1500Z, May 7 to 0300Z, May 8 |

May 2022 Contest Calendar - Continued on page 45

May 2022 Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

May 2022 Contest Calendar - Continued from page 44

| | |
|---|--|
| + Delaware QSO Party | 1700Z, May 7 to 2359Z, May 8 |
| + New England QSO Party | 2000Z, May 7 to 0500Z, May 8 and 1300Z-2400Z, May 8 |
| + WAB 7 MHz Phone | 1000Z-1400Z, May 8 |
| + K1USN Slow Speed Test | 0000Z-0100Z, May 9 |
| + 4 States QRP Group Second Sunday Sprint | 0000Z-0200Z, May 9 |
| + ICWC Medium Speed Test | 1300Z-1400Z, May 9 |
| + OK1WC Memorial | 1630Z-1729Z, May 9 |
| + ICWC Medium Speed Test | 1900Z-2000Z, May 9 |
| + RSGB 80m Club Championship, SSB | 1900Z-2030Z, May 9 |
| + Worldwide Sideband Activity Contest | 0100Z-0159Z, May 10 |
| + ICWC Medium Speed Test | 0300Z-0400Z, May 10 |
| + RTTYOPS Weeksprint | 1700Z-1900Z, May 10 |
| + Phone Weekly Test | 0230Z-0300Z, May 11 |
| + A1Club AWT | 1200Z-1300Z, May 11 |
| + CWops Test | 1300Z-1400Z, May 11 |
| + Mini-Test 40 | 1700Z-1759Z, May 11 |
| + VHF-UHF FT8 Activity Contest | 1700Z-2000Z, May 11 |
| + Mini-Test 80 | 1800Z-1859Z, May 11 |
| + CWops Test | 1900Z-2000Z, May 11 |
| + CWops Test | 0300Z-0400Z, May 12 |
| + CWops Test | 0700Z-0800Z, May 12 |
| + RTTYOPS Weeksprint | 1700Z-1900Z, May 12 |
| + EACW Meeting | 1900Z-2000Z, May 12 |
| + NCCC RTTY Sprint | 0145Z-0215Z, May 13 |
| + NCCC Sprint | 0230Z-0300Z, May 13 |
| + K1USN Slow Speed Test | 2000Z-2100Z, May 13 |
| + CQ-M International DX Contest | 1200Z, May 14 to 1159Z, May 15 |
| + VOLTA WW RTTY Contest | 1200Z, May 14 to 1200Z, May 15 |
| + Canadian Prairies QSO Party | 1700Z, May 14 to 0300Z, May 15 |
| + 50 MHz Spring Sprint | 2300Z, May 14 to 0300Z, May 15 |
| + Run for the Bacon QRP Contest | 2300Z, May 15 to 0100Z, May 16 |
| + K1USN Slow Speed Test | 0000Z-0100Z, May 16 |
| + ICWC Medium Speed Test | 1300Z-1400Z, May 16 |
| + OK1WC Memorial | 1630Z-1729Z, May 16 |
| + ICWC Medium Speed Test | 1900Z-2000Z, May 16 |
| + Worldwide Sideband Activity Contest | 0100Z-0159Z, May 17 |

May 2022 Contest Calendar - Continued on page 46

May 2022 Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

May 2022 Contest Calendar - Continued from page 45

| | |
|--------------------------------------|--|
| ± ICWC Medium Speed Test | 0300Z-0400Z, May 17 |
| ± RTTYOPS Weeksprint | 1700Z-1900Z, May 17 |
| ± Phone Weekly Test | 0230Z-0300Z, May 18 |
| ± A1Club AWT | 1200Z-1300Z, May 18 |
| ± CWops Test | 1300Z-1400Z, May 18 |
| ± VHF-UHF FT8 Activity Contest | 1700Z-2000Z, May 18 |
| ± Mini-Test 40 | 1700Z-1759Z, May 18 |
| ± Mini-Test 80 | 1800Z-1859Z, May 18 |
| ± CWops Test | 1900Z-2000Z, May 18 |
| ± RSGB 80m Club Championship, Data | 1900Z-2030Z, May 18 |
| ± Walk for the Bacon QRP Contest | 0000Z-0100Z, May 19 and 0200Z-0300Z, May 20 |
| ± NAQCC CW Sprint | 0030Z-0230Z, May 19 |
| ± CWops Test | 0300Z-0400Z, May 19 |
| ± CWops Test | 0700Z-0800Z, May 19 |
| ± RTTYOPS Weeksprint | 1700Z-1900Z, May 19 |
| ± NTC QSO Party | 1900Z-2000Z, May 19 |
| ± EACW Meeting | 1900Z-2000Z, May 19 |
| ± NCCC RTTY Sprint | 0145Z-0215Z, May 20 |
| ± NCCC Sprint | 0230Z-0300Z, May 20 |
| ± K1USN Slow Speed Test | 2000Z-2100Z, May 20 |
| ± SARL VHF/UHF Digital Contest | 0300Z-0500Z, May 21 (6m) and 0500Z-0700Z, May 21 (2m) and 0700Z-0900Z, May 21 (70cm) and 0300Z-0500Z, May 22 (6m) and 0500Z-0700Z, May 22 (2m) and 0700Z-0900Z, May 22 (70cm) |
| ± UN DX Contest | 0600Z-2100Z, May 21 |
| ± YOTA Contest | 0800Z-1959Z, May 21 |
| ± NZART Sangster Shield Contest | 0800Z-1100Z, May 21 and 0800Z-1100Z, May 22 |
| ± EU PSK DX Contest | 1200Z, May 21 to 1200Z, May 22 |
| ± His Maj. King of Spain Contest, CW | 1200Z, May 21 to 1200Z, May 22 |
| ± Arkansas QSO Party | 1400Z, May 21 to 0200Z, May 22 |
| ± Feld Hell Sprint | 1600Z-1759Z, May 21 and 2000Z-2159Z, May 21 |
| ± Baltic Contest | 2100Z, May 21 to 0200Z, May 22 |
| ± K1USN Slow Speed Test | 0000Z-0100Z, May 23 |
| ± QRP ARCI Hootowl Sprint | 0000Z-0100Z, May 23 |

May 2022 Contest Calendar - Continued on page 47

May 2022 Contest Calendar

WA7BNM Contest Calendar : www.contestcalendar.com

May 2022 Contest Calendar - Continued from page 46

| | |
|---|--------------------------------|
| ± ICWC Medium Speed Test | 1300Z-1400Z, May 23 |
| ± OK1WC Memorial | 1630Z-1729Z, May 23 |
| ± ICWC Medium Speed Test | 1900Z-2000Z, May 23 |
| ± Worldwide Sideband Activity Contest | 0100Z-0159Z, May 24 |
| ± ICWC Medium Speed Test | 0300Z-0400Z, May 24 |
| ± RTTYOPS Weeksprint | 1700Z-1900Z, May 24 |
| ± SKCC Sprint | 0000Z-0200Z, May 25 |
| ± Phone Weekly Test | 0230Z-0300Z, May 25 |
| ± A1Club AWT | 1200Z-1300Z, May 25 |
| ± CWops Test | 1300Z-1400Z, May 25 |
| ± Mini-Test 40 | 1700Z-1759Z, May 25 |
| ± Mini-Test 80 | 1800Z-1859Z, May 25 |
| ± CWops Test | 1900Z-2000Z, May 25 |
| ± CWops Test | 0300Z-0400Z, May 26 |
| ± CWops Test | 0700Z-0800Z, May 26 |
| ± QRP Minimal Art Session | 1400Z-2200Z, May 26 |
| ± RTTYOPS Weeksprint | 1700Z-1900Z, May 26 |
| ± RSGB 80m Club Championship, CW | 1900Z-2030Z, May 26 |
| ± EACW Meeting | 1900Z-2000Z, May 26 |
| ± NCCC RTTY Sprint | 0145Z-0215Z, May 27 |
| ± NCCC Sprint | 0230Z-0300Z, May 27 |
| ± K1USN Slow Speed Test | 2000Z-2100Z, May 27 |
| ± CQ WW WPX Contest, CW | 0000Z, May 28 to 2359Z, May 29 |
| ± K1USN Slow Speed Test | 0000Z-0100Z, May 30 |
| ± ICWC Medium Speed Test | 1300Z-1400Z, May 30 |
| ± QCX Challenge | 1300Z-1400Z, May 30 |
| ± OK1WC Memorial | 1630Z-1729Z, May 30 |
| ± RSGB FT4 Contest | 1900Z-2030Z, May 30 |
| ± ICWC Medium Speed Test | 1900Z-2000Z, May 30 |
| ± QCX Challenge | 1900Z-2000Z, May 30 |
| ± Worldwide Sideband Activity Contest | 0100Z-0159Z, May 31 |
| ± ICWC Medium Speed Test | 0300Z-0400Z, May 31 |
| ± QCX Challenge | 0300Z-0400Z, May 31 |
| ± RTTYOPS Weeksprint | 1700Z-1900Z, May 31 |



HAMFEST

**Cape May County
Amateur Radio Club**

**Will host a 2 day hamfest in conjunction with our
Field Day activities**

June 25 and 26, 2022 (Saturday & Sunday)
Rain or Shine

**Location: Cape May Airport Complex, off
Breakwater Rd., Erma, NJ. 08204
Field is on Ranger Rd.,**

call in Channel CMCARC: N2CMC on 146.610 PL 88.5.

General admission free

**\$10 per space, (one car wide). Tailgate, ground,
bring your own table. Fee good for both days.
Overnight permitted only if self contained.**

**Admission at 7am both days,
no early birds, please.**

Contact: Rich Stahl WR3V 609-350-3734

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 & 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 Monday Of Every Month @ 1900 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, May 4, 2022

1930 Hours

Live & In-Person

Pfeiffer Community Center

Simulcast Live on ZOOM

Board of Directors Meeting

Wednesday, May 18, 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**