

DELAWARE-LEHIGH AMATEUR RADIO CLUB Inc.

JULY 2023

**W3OK
CORRAL**

Club Meeting July 6, 7 PM at the
Nancy Run Firehouse.

3564 Easton Avenue, Bethlehem, PA 18020

“PLEASE NOTE TO START TIME FOR MEETING”

JULY MEETING PROGRAM

SKYWARN

By Sarah Johnson



JUNE MEETING MINUTES

The General Meeting was held at the Firehouse.

President Doreen, K3PDL, called the meeting to order at 1900 hours.

Pledge of Allegiances: Led by Doreen, K3PDL

President's Thoughts: We have been asking for someone to step forward and take on the Secretary's position. If you volunteer for it, you will be getting a lot of help to start. It is important this position is filled. In September, nomination will be held for this position and for my position of President. Years ago, awards were given in October titled "Take the Bull by the Horns," which meant someone stepped forward and took on an office or a chair position. If positions are not filled by younger members of DLARC, there will be no club. DLARC has been around since mid-40s.

Guests: Doug, K6PGH, who just moved from California to Easton. He is interested in joining.

Secretary's Report:

Terry, KC3JHT, as Acting Secretary, asked if there were any additions or corrections to the Meeting Minutes as printed in the last Newsletter. A motion to accept the Minutes is made by Dean, AB3BD, and second by Larry, KC3JTK. All were in favor, motion passed.

NOTE: *We still need a **PERMANENT SECRETARY** and if interested, contact any Board Member.*

Treasurer's Report:

Larry, KC3JTK, presented the report for April. A motion by Dean, AB3BD, to accept the report. Carl, AA3IX, seconded the motion. All were in favor, motion passed.

Committee Reports:

Membership: Terry, KC3JHT said that we have quite a few new members that came from the Classes that just ended. The following are new members, Sue Abt, KC3WCF, Joe Tomko, KC3WBW, Jolisa Pinarich, KC3WBY, Nick Pinarich, KC3WBX, Michael Cox, KB3WCX, A. Malcom Stanley, KC3WBZ, Stewart Smith, KC3WCE, Robert Smith, KA2LEL, and by the end of the Meeting, Douglas Wood, KPGH became a member. That brings 6 Associate members, 7 Life members, and 128 voting members for a total of 141 members.

Club Station: None

Tech Committee:

George, N3SQD, discussed the new Rotator with Charlie, K3HKZ and Charlie will be working on the issues with what to do to get everything ready to do the repairs.

George will provide updates as they are available.

Al, W3CE, indicated that there will be a Fox Hunt on Sunday, 11 June 2023 at 2 pm.

Al will give further information on the Forum and John, N3IGA will do a mass email to all.

Website: No report

Repeater: No report. It is working.

Old Business: Larry, KC3JTK, said if your ARRL membership is coming up, see John, N3IGA, as we get a commission of renewals and new ARRL members. No extra cost to Club members.

New Business:

Bob, KE3AW, indicated that a former member Ron Raymond, who became a Silent Key back in October 2022, has a repeater up at the Bethlehem Star Location and he asked if we are interested in it. The BOD was asked to discuss and see what we must do to get it up and running if we want to. More discussion to be held. Need to talk to Barry, N3NVA.

If you need a Club badge, contact Dave, N3EFT. Doreen had some badges and had a sheet to sign up for if you needed a badge.

Field Day – Everything is ready. Terry, KC3JHT has the food under control, George, N3SQD, has the generators, Ben, N3WR, has the networking ready, Larry, KC3JTK, has antennas along with Barry, KU3X, John, NT3P has the VE Session, and others.

Announcements: Barb, W3ATC, indicated she attended the Hamfest in Dayton and indicated that the ARRL has a brochure on Estate Planning which will soon be up on the ARRL webpage.

Old Business: The Rotator is in and George, N3SQD, will collaborate with Charley Adam, K3HKZ to get checked it out and installed soon.

Awards: None

Adjournment: There being no further business, the meeting was adjourned at 1938 hours.

Program: The program was NEC Modeling Antennas by Larry, KC3JTK.



There is a NEW program for July. The new program will be on SKYWARN. Sarah Johnson from the Mt Holly, NJ National Weather Service (NWS) will give a highly informative presentation on how important SKYWARN is along with SKYWARN Spotters for ground reports. The radar that comes from Mt Holly is already a mile high above the Lehigh Valley, so it is important to make sure that NWS is informed on what is going on at ground level. Sarah may inform the members present how to become SKYWARN Spotters.

Good results! New Hams!

Here are the results of VE testing on the regular odd-numbered month schedule, Friday, May 5, and the additional VE testing as the last class in DLARC's Spring Series on May 9.

Our **Tech class** began with 13 participants. Over the weeks we lost 2 to personal schedule changes. Two others will be evaluated soon.

Of the 9 in the Tech class, these new hams earned Tech or Tech and General, by suffix: Dave/KC3VZA (General), Tom/KC3VZD (General), Joe/KC3WBW, Nick/KC3WBX, Jolisa/KC3WBY, Malcolm/ KC3WBZ (General), Stewart/KC3WCE, Sue/KC3WCF, and Mike/KC3WCX.

In addition to our Tech class members, 1 person passed the Tech test.

While the **General class** had fewer participants, 4 of the 5 earned their General Licenses. They are Ralph/KC3VII, Josh/ KCVIK, Eric/KC3VKR and Chris/N3QIM.

Congratulations to all successful candidates!

Further Appreciation: Thanks go to Al/W3CE, George/N3SQD, Dean/AB3BD, and Larry/KC3JTK, our instructors. Also, to the VE teams which included: John/NT3P (VE Liaison) and VEs Al/W3CE, George/N3SQD, Dean/AB3BD, John N3IGA, Jim/ KJ3FOX, Len/W3TWP and Bob/KE3AW.

We should be hearing these new call signs on VHF/UHF and some on HF, so when you do, please extend a welcome and congratulations to them. We are hoping you can have an eyeball QSO at Field Day and at DLARC monthly meetings and other events.

De, Bob/KE3AW

Product Review
By Barry G. Kery, KU3X

Portable Multi Band Vertical Antenna

I am always on the hunt for a better mouse trap. Dave, NB3R came across a great multi band vertical antenna for portable operating. It is a, "**PAC-12 7-50MHz Shortwave Antenna**" found on AliExpress.com.

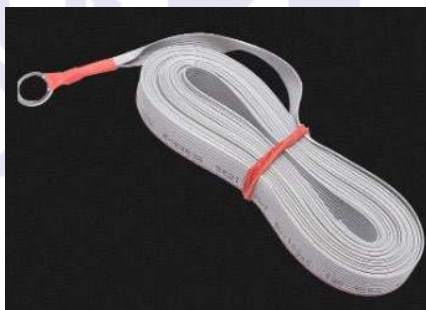
The PAC-12 antenna is designed to operate on any frequency from 6 meters down to 40 meters.



Numerous manufacturers make multi band vertical antennas designed to be used for portable operating. Some have quality issues and others may have performance issues, or both? Any hunk of wire or aluminum will radiate if RF is applied to it, but how much will be radiated is the question.

When it comes to ground mounted vertical antennas, one major factor that effects performance is the ground radial field. The PAC-12 comes with a long ribbon cable that you will have to separate each wire and cut to a quarter wavelength per band of operation. There are ten wires within the ribbon cable. The length of the ribbon cable is 18 feet. This is too short for 40 meters but perfect for 20 meters. I made four 35 foot long radials out of some wire I had laying around the shack. This will increase the performance on the 40 meter band as well

as making a better match. Spread the radial wires out equally around the base of the antenna. Since the radials are not elevated, they do not have to be tuned but it does make for a better match.



The antenna comes with a short stake that can be driven into the ground for attaching the ground radial crimp on to and attaching the feed insulator.



The stake is strong enough to support the entire antenna, even on windy days. The feed insulator has an SO-239 for connecting your coax. The feed insulator must be attached to the ground stake correctly. Make sure the writing on the insulator is on top of the SO-239 and the black portion of the insulator is attached to the ground stake.



So, what makes this antenna perform better than most other commercially made portable vertical antennas? Answer, "the mast!" Most manufacturers, not all, use a tapped base loading coil to make the antenna resonant on numerous bands. On a quarter wave antenna, the wire or aluminum closest to the feed point of the antenna is the current portion of the antenna and the current portion does the most radiating. By base loading the antenna you lose the most important part of the antenna which directly affects the efficiency of the antenna. The PAC-12 has a 4 foot mast that goes between the feed point of the antenna and the tapped loading coil. Each section of the mast is one foot long. The threads on each end are metric, 10 mm.



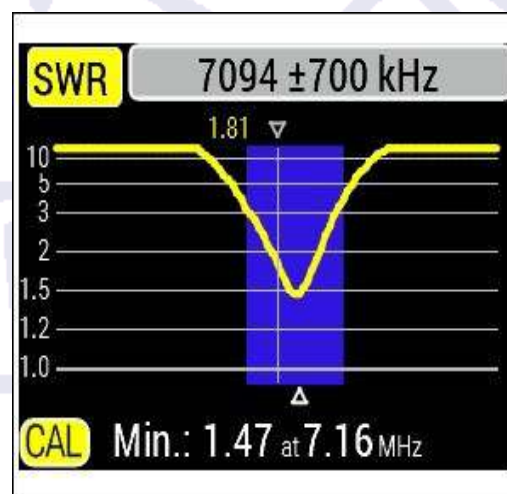
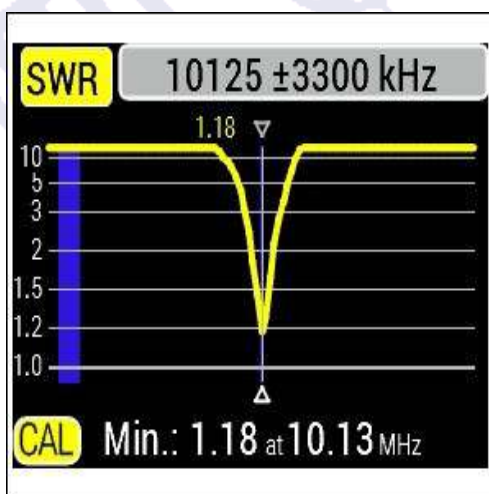
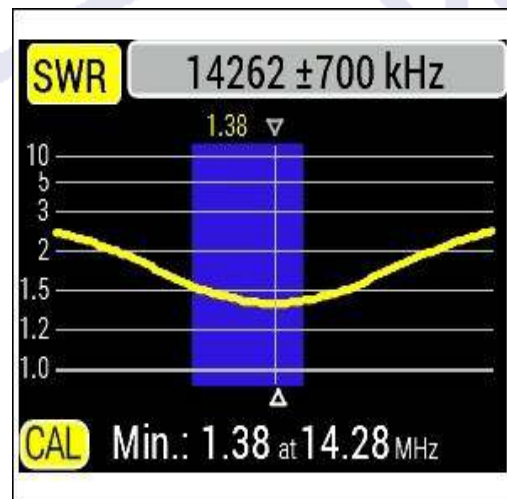
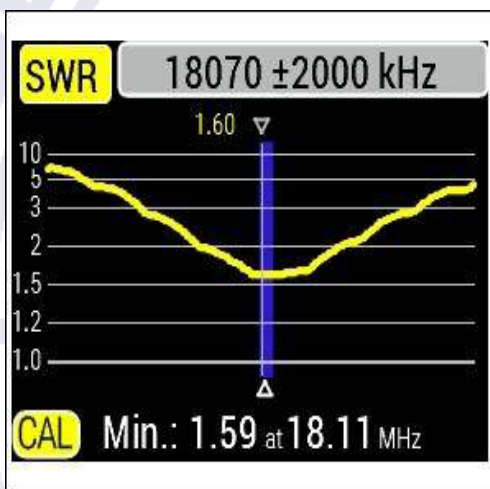
The tapped loading coil is super easy to use when it comes to changing bands. There is a square contact slider on the bar used to change bands.



The contact slider is extremely easy to slide up and down, by hand, for changing bands. Look closely at the fourth turn on the coil from the left hand side of the assembly. It is colored brown. That shows you where the tap is to be place

to operate on 20 meters. Looking at the right hand side of the coil you will see, around 10 turns from the end another wire is colored brown. This shows where to place the contact slider for 40 meters. We found these two tapes to be spot on. For thirty meters, the contact slider is placed close to the center of the coil. If you want to operate on 17 meters, move the contact slider to the very top of the coil and then shorten the telescopic whip around eight inches. Keep retracting the telescopic whip to raise the operating frequency.

The overall length of the antenna fully assembled is 13 feet. Dave and I tried his antenna on four bands. We were able to get a low SWR on all four bands.



The PAC-12 is advertised to manage up to 100 watts. The quality of this antenna is far superior compared to most of the commercial antennas that I have seen that are made in the USA. Most, not all.

DX Engineering sells this product for around \$209. Dave purchased his off AliExpress. I ordered one for myself off AliExpress and I paid \$125 with free shipping. It took two weeks for it to arrive. Search AliExpress, "PAC-12" and you will see numerous sellers. Prices range anywhere from \$114 to around \$138.



Adjusting the contact slider on the coil. The antenna was erected at Franko Park.

Just a note on ground radials.

When radials are lying on the ground, they do not have to be tuned. You should try to cut them close to one quarter wavelength, but it is not critical. You want to lay down as many radials as possible for maximum performance. But if you can only lay down two per band, the antenna will match and work well. To increase the performance of a vertical using radials laying on the ground, you need to double the amount of radials. This will improve your signal by 3 db. Want an additional gain of 3 db, again double the amount of radials. Once you have 120 radials lying on the ground, you have reached a point of diminishing returns.

An unusual way of improving the performance of this antenna is to elevate the radials. When doing so, the radials must be tuned to the proper quarter wavelength per band. If you erect four tuned radials on the band of operation, you have come close to maximum performance.

ARRL Renewal and New Members

For over a year, since I took on the position of the DLARC ARRL Membership Liaison. I have helped new Club members to become ARRL members and other members who need to renew their ARRL Membership.

So, if you are an ARRL member and have not told me, please let me know and check your mailing label on your QST for your renewal date. Send that information to me so that when it is close to the time for renewal for you, I can send you the form you need to fill out and get back to me with whatever payment you chose. If paying by check, make sure you make it out to ARRL and not DLARC. Then mail it to me. When I let you know that it is close to renewing, I will include my mailing address for mailing checks. If you pay by credit/debit card, fill the information in on the form, then scan it so you can email it back to me. I will fill out the form I have to do and send everything to ARRL. It takes at least 3 weeks for things to be done.

If you are not a ARRL member and would like to become one, send me an email to n3iga@ptd.net and I will be glad to send you a form to fill out. The only difference you need to know is you must check the box that says New Membership. Payment is the same as I have said before.

DLARC gets a commission with new and renewed members. Joining ARRL and renewing through DLARC helps the club out and you will enjoy the features in the QST magazine.

De John, N3IGA ARRL Membership Liaison

NEC Modeling Antennas

By Larry Butler, KC3JTK

The program for the General Meeting was NEC Modeling Antennas by Larry, KC3JTK.

It was an interesting and informative program. Larry explained that you can find the program for this subject. Google EZ NECC 2 and download the program. The

program helps you design any type of antenna and if you understand that well, you can make your own dipole or Yagi antenna. The Program helps in every way to make sure that you can build an antenna better than you ever thought. It also helps you understand how antennas will change the output if minor changes. Put in what you are looking for and then update your antenna until you have the one you want to build and start getting on the air.

There was a lot of the information that I did not understand. I am still going to download the program and then play with it until I understand what I am doing.

If you have any questions, contact Larry, KC3JTK and ask him. He should be able to answer your questions or tell you who would give you a better answer.

The DLARCforum Information

The DLARCforum is the club's email reflector. An email reflector is like a bulletin board. When you send a message to the reflector, it processes it and then sends it out to everyone who is subscribed to the reflector. That way, you only must address your email to one address, not a whole bunch. The DLARCforum is open to all club members. You must subscribe to the reflector to be able to send and receive messages.

This list is restricted to club members only, which means that you will not be getting tons of spam through the list. Identity and membership is verified before anyone is subscribed to the list.

If you would like to subscribe, go to this UR on the Internet, <http://mailman.qth.net/mailman/listinfo/dlarcforum> and you will see at the top: "QTH.net Mailing List." Fill in the Email address that you want the mail sent to. "**Your Name**" - put your legal call sign. Example: "**John, N3ABC**". Enter a password, reenter your password. Click on "**English Language**." "Would you like to receive list mail batches in daily digest+ - "**NO**"? Click on "**Subscribe**." Check your Spam folder to see if there is a message about verifying your subscription. Your subscription will go to the Administrator to check over. If everything is filled out correctly, especially the legal call sign, then he will pass it on. You should get a "Welcome Message." If you need any help or have questions about the reflector, feel free to ask. You can see me at every meeting, or you can send email to n3iga@ptd.net and I will be happy to assist you.

De John, N3IGA DLARCforum Administrator

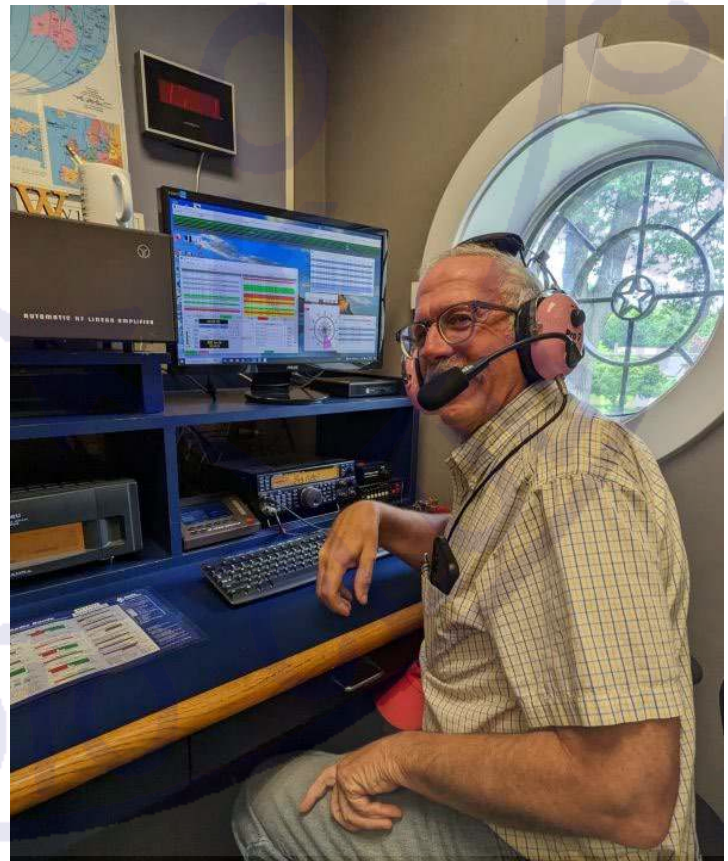
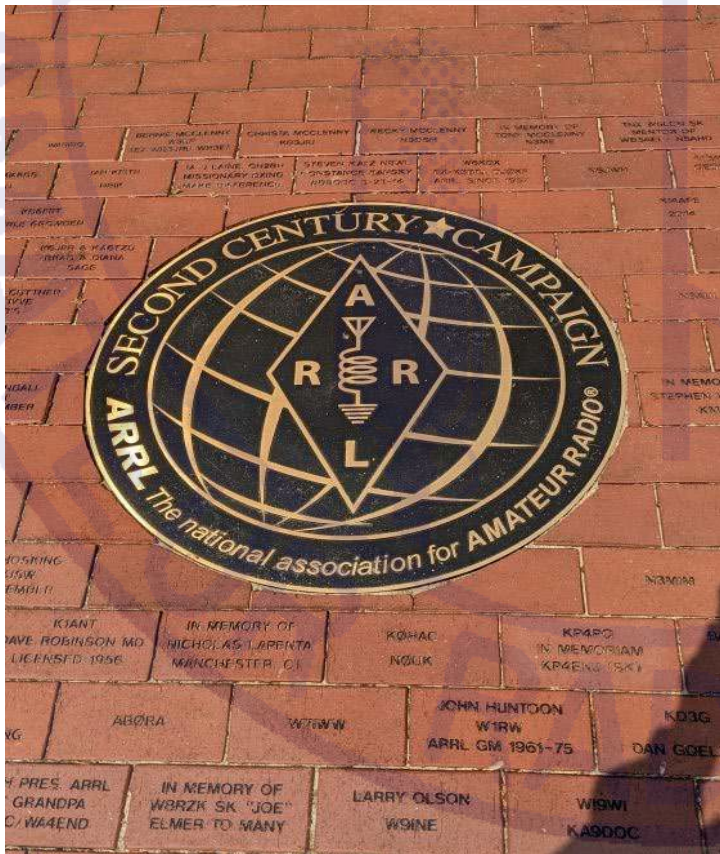
"MAKE A DIFFERENCE, ATTEND A MEETING."

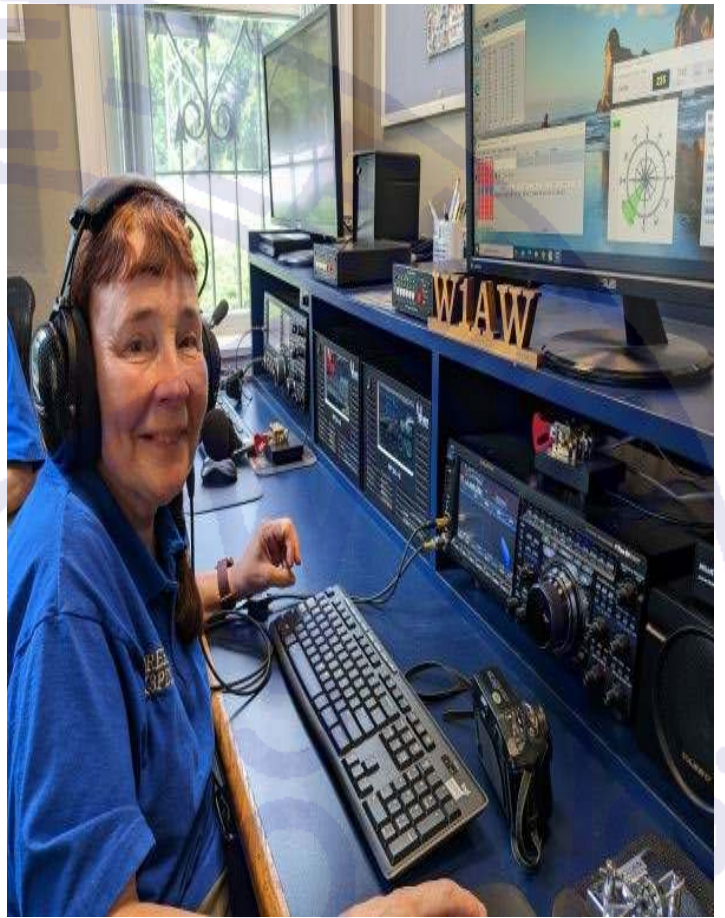
Pictures of the DLARC Field Trip to ARRL

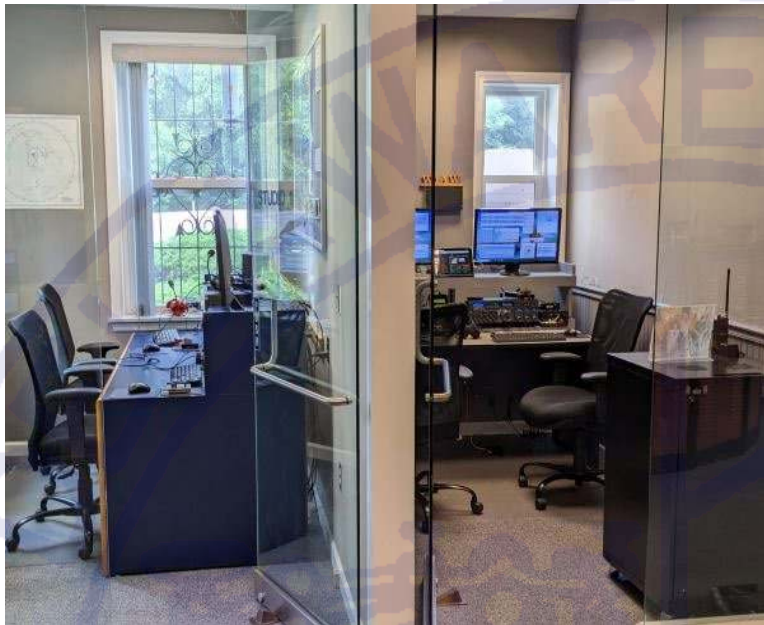
Pictures by Dave, N3EYT

DLARC members, Doreen, K3PDL, Bob, KE3AW, Carl, AA3IX, Larry, KC3JTK, Dave, N3EYT, George, N3SQD, and Wayne, KG5MGN visited the ARRL in Newington, CT on June 16th and were guest operators of W1AW on multiple bands.









American Radio Relay League Station 1AW

Hiram Percy Maxim, Owner 276 No. Whitney Street, Hartford, Conn.

Radio 9CTE

Your 2 signals were worked here on 1923 at about _____
 heard _____

A.M. _____ P.M. _____ E.S.T. _____

on Tuska three-circuit tuner and two stages audio amplification, Baldwin phones.

Audibility 2 1/2

1AW

Wave-length 19.0
 QRN _____
 QRN _____
 QSS _____
 Weather _____
 Tone _____
 Wave _____

Remarks: Have typed the call log to 157 office for reply. My wife says I present a convincing table card.

Would like report on 1AW's signals if you hear them. Best 73's.

Hiram Percy Maxim Operator

One of the Original 1AW QSL Cards



DLARC NET QUICK CHECK CALENDAR

July 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3	4 INDEPENDENCE DAY	5 DLARC NET KC3JHT Terry	6 DLARC MEETNG 7:00 pm	7 VE TEST SESSION 7 PM	8
9	10	11	12 DLARC NET N3EYT Dave	13	14	15
16	17 BOARD MEETING 7PM	18	19 DLARC NET W3CE AI	20	21	22
23	24	25	26 DLARC NET N3SQD George	27	28	29
30	31					

WEDNESDAY NIGHT NETS

Additional Net Controls are needed for the Wednesday Night ARES, RACES & DLARC net. If we have enough interested operators, it will only be necessary for each operator to have only one net session in each three-month period. 13 weeks in a period, then 13 net controls would be ideal, and some extras to fill in if needed. This would give us a pool of experienced controls, for any emergency which would arise. Interested operators should contact George, N3SQD at george@bioserv.com. The NIMS IS-700 and ICS-100 courses are not needed to be a net control, but should the need arise, and we do supply controls and operators for real emergencies, then the courses requirement will be in effect and EMA issued IDs will be needed to be on the scene of an emergency.

NORTHAMPTON COUNTY ARES, RACES AND DLARC NET

All Radio Amateurs are welcome to take part in the ARES, RACES and DLARC net. This net meets Wednesday at 1900 hours local time, on the W3OK Repeater 51.76, 146.70 and 444.90 (pl 151.4). With an alternate frequency of 147.135 + DPL 315) W3OI Repeater. QCWA Chapter 17 holds a net Monday evening at 8:30 PM on 3960 +/- depending on conditions. Other inputs are the 146.85 repeater, (151.4 PL) and Echolink at K2PM-R. Mid-Atlantic D-Star Net meets each Tuesday at 7:30 PM. The following repeaters Dstar repeaters are available in the Lehigh Valley. W3OK -145.11000MHz -0.600 Port C - W3OI -147.16500MHz +0.600 Port C, - W3OI - 445.02500MHz -5.000 Port B
All repeaters on the net are linked through **Reflector 020 port A**, so all stations checking into the net should make sure that they have *their local repeater call sign followed by the letter "G" in the eight positions of the RPT2 field*. Otherwise, you will only be heard locally and not over the Reflector. Dongle users wishing to check into the net should Log On by connecting directly to Reflector 20, port A, rather than through your local repeater to conserve local bandwidth.

EXECUTIVE COMMITTEE 2022-2023

OFFICERS

President – Doreen Gramling / K3PDL ----- gramlingda22@myyahoo.com
Vice President – Terry Swinney / KC3JHT ----- ldocapt@gmail.com
Secretary – *OPEN*
Treasurer – Larry Butler / KC3JTK ----- lrbutler@ptd.net

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Adam Gauntz / N3LAG ----- agent1@aol.com
John Holmes / N3IGA ----- n3iga@ptd.net
Dave Frankenfield / N3LWY ----- mycallsign@gmail.com
Steve Harper / W3NAM ----- sharper3152@gmail.com

PHONE NUMBERS FOR THE EXECUTIVE COMMITTEE OF THE DLARC CAN BE FOUND ON THE WEBSITE / MEMBERSHIP LISTING CLUB MEETINGS.

All regular meetings of the D.L.A.R.C. Are held on the first Thursday of each month at 7 PM at the Nancy Run Firehouse. TALK IN ON 146.700 (PL 151.4)

Club Station Telephone Number – 484 291-1527 Email Address – W3OK@arrl.net

THE W3OK TRUSTEE --- Barry Vogt / N3NVA

The W3OK Corral is published monthly and is the Official Publication of the

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