

DELAWARE-LEHIGH AMATEUR RADIO CLUB Inc.

OCTOBER 2023

W3OK

CORRAL

Club Meeting October 5th, 7 PM at the
Nancy Run Firehouse.

3564 Easton Avenue, Bethlehem, PA 18020

“PLEASE NOTE TO START TIME FOR MEETING”

OCTOBER MEETING PROGRAM

“Awards and Special Program”



SEPTEMBER MEETING MINUTES

The General Meeting was held at the Firehouse.

Since the President was not available, VP Terry, KC3JHT, called the meeting to order at 1900 hours.

Pledge of Allegiances: Led by Terry, KC3JHT

President's Thoughts: None since the President was available

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. The correction of the wrong month for the Meeting Minutes has been changed, a motion to accept the Minutes was made by Dean, AB3BD, and second by Adam, N3LAG. All were in favor, motion passed.

Treasurer's Report:

Larry, KC3JTK, presented the report for July. A motion by Dean, AB3BD, to accept the report. Adam, N3LAG, seconded the motion. All were in favor, motion passed.

Committee Reports:

Membership: Terry, KC3JHT reported that there are 147 members. 14 of them are Associates and 7 Life Members.

Club Station: Adam, N3LAG, said that the Rotar has been repaired and up on the beam. Come out and see how it works.

Tech Committee: George, N3SQD, informed everyone that the Rotar is up and working. Come out and use the beam to see what contacts you can make. Al, W3CE, said he is working on the D-Star equipment and should have it up and running in a few weeks.

Website: No report Work is still in progress

Repeater: No report. It is working.

Old Business:

Dave, N3EYT, informed members present that he had some Club badges for those who asked for them. If you are a Club member in good standing, please contact Dave for your Club badges.

New Business: There was a discussion about the times that the Club Station (Milk House) is open. The Milk House will be open on Wednesday from 4-5 pm and 9 to Noon on Saturdays. On Saturdays if no one is coming by 11 am operate or learn the equipment, the person in charge will leave. You must remember that others have

things to do. So, if you plan to come to the Milk House, let someone know what time you will be there. That is only fair. You can contact the Milk House through the Club repeater or by calling **484-291-1527**. You should get an answer either way. Now there are no excuses that someone tried to go to the Milk House and nobody was there. The information to find out if someone is at the Milk House is now known. Please do not expect the Milk House to open past noon unless there is a contest or Special Event with Club members participating.

Terry said that a letter to Charley Adams and the Certificate of Appreciation to let him know how much we value his service to us.

The website is still a work in progress. Sue, KC3WCF and Malcolm, KC3WBZ will be working on that. Sue did an excellent job on the PA QSO Party flyers. She is making a new QSL card for W3OK. She will be doing a lot for the Club to help get the word out about the DLARC.

The word is that Barry, N3NVA, will be released from the hospital today.

Bob, KE3AW, said that both the Tech and the General Classes are going well. Bob said that we should see an increase in membership. It may be up to 30 new members. Whether they stay or not known. We, the Club, need to try our best to keep any new members.

Terry reported on the survey he sent out. He said he does not know how people got it or read it because only 4-5 people responded and that was in the first few hours after the survey were sent out by mass email and put on the DLARCforum.

Terry said that having a meeting on a Saturday morning will not work with the Nazareth Dinner. That is the busy day for breakfast and they cannot put us in a special room. Terry was told that there was no problem having a dinner meeting on any night. Terry said there will be more discussion on this matter.

John, N3IGA, talked about the upcoming PA QSO Party. Someone sent a message on the DLARCforum about DLARC being the Bonus Station this year. First, it must be known that there are a lot of Clubs asking to be the Bonus Station. It may take a few years until DLARC is picked. There is one major problem that DLARC has and that is participation. Last year, there were only 3 logs entered for DLARC. The year before, there were 4 logs entered. Other years there were 4, 6, 2, 5, 4, and 8 logs for 2015. The last time DLARC was a Bonus Station, there were 32 Bonus Stations. They were spread all over. A Bonus Station does not have to be at the Club Station. You can work from your home station with a special call sign. It would be something

like W3OK/ (the County you are working in). If you were in Lehigh County, your call would be W3OK/LEH or in Northampton, W3OK/NHA. If there are more than one W3OK station in the County, you would add a number after the County. It would be like W2OK/NHA2, W3OK/NHA3, and so forth. We must be sure that we have enough stations to be a decent Bonus Station. If you have an HF station already set up at home, you can do the Party with your own call sign. All you must do is download a logging program for free. I like N3FSP Amateur Radio Software. It puts your log in Cabrillo form that is needed. After you download it, you are asked to fill in some information like County operating from, type of power, grid (I think), and a block that says CLUB. That is where you type in Delaware-Lehigh Amateur Radio Club. Click on Done. Now your score will be added to other scores that are going to DLARC. If we have a big score, we may take the State for Top Club. It is not a contest; it is something fun that gets you going on HF. If you check the September Newsletter, there is a flyer for the PA QSO Party with the website where you check out everything about the Party. It also has a list of free logging programs. It is a fun contest. See how many of the 67 Counties you can get. A clean sweep which is getting all of them. October 14-15, Saturday from noon to midnight and Sunday from 9 am until 6 pm. Enjoy playing on the radio. It is fun.

John, NT3P, the Election Committee Chairperson, announced who was running for whatever position. Nominations were open if anyone wanted to get on the Executive Committee. For the position of President, Terry, KC3JHT. For Vice President, John, N3IGA. The Secretary's position was still open. At that time, Doug, K6PGH, said that he would take the Secretary's position. He said that he sent it as an attachment with his survey answers back to Terry. Terry said he did not see it and he apologized. John said that since he had a nomination from the floor for Secretary, he asked if there were any more members present that wanted to run for any positions. There were none. So, John announced that the nominations were closed. He continues saying that Larry, KC3JTK continues as the Treasurer. For the five Directors, Dean, AB3BD, Adam, N3LAG, Dave, N3LWY, Steve, W3NAM, and myself, NT3P. Doreen, K3PDL, is Past President who will be a Board Member. So, currently with Doug, K6PGH, stepping up for Secretary, we have a person for every position. After the October meeting, Doug will officially be the new Club Secretary. When there is only one person for every position, a formal vote by the Secretary will be next month.

Terry said that next month we have awards.

Sue, KC3WCF, said she had done some research with the Girl Scouts. She had some questions. She just wanted to know if we could open the Milk House like one day a week. Not every week, but with the arrangement with the Girl Scouts, you have people there to show them about the radios and computers and even let them try to make contacts. She asked if we have volunteers that can help demonstrate what they need to know to do it themselves. Adam told her to contact him, which he gave her his email address, so he could see what could be done.

Bob, KE3AW, also talked about the upcoming Halloween Parade in Emmaus. He said he would need 15 operators for the parade. One Net Control and 14 operators in vehicles in the parade. He explained how important we are to the parade. We are the eyes and ears of the parade. Anything that is illegal or could cause any problems with the process of the parade needs to be reported to prevent any problems. It is not hard and the Club members that have been doing it for years will be willing to help anyone new.

Awards: None

Adjournment: There being no further business, the meeting was adjourned at 1945 hours.

Program: Parks On The Air by Adam, N3LAG

PARKS ON THE AIR

By Adam, N3LAG

Adam put on another great program on Parks On The Air. It was informative. He went over the logging program that he uses. He explains each step that everyone could understand. He explained what to do if you become active in a park. You do not need high power. Adam uses 20 watts. He made contacts all over Europe, Africa, and the Middle East. Not bad for 20 watts.

He explained how to set up properly and safely because you will get a visit from a Park Ranger asking questions. If you are told to leave, you just do that. Clean up and make sure it is the same way you found it and left. That does not happen too often but be prepared. If the Rangers see that you have no wires or any equipment

that would cause a problem with the public, they will either tell you to fix it or get out.

The main thing Adam kept going over is SAFETY. That is the MOST important thing to remember. Safety for you and the public. If Adam has another set up in the Park, go up and see it in action.

Helpful Hints for the Ham Radio Operator **by Barry G. Kery, KU3X**

RF Connectors: General Information

Did you ever wonder where all the several types of RF connectors are use, or which connector is best for your application? When we entered the hobby, we were introduced to the UHF - PL 259 connector. When it comes to HF, it is the most widely used RF connector in ham radio. But is it the best connector for ham radio?

Let us address the UHF - PL 259 connector. First off you must realize it is not a 50-ohm connector. As per W1ZR, he specs out this connector at 23 ohms. This is related to who manufactured the connector. Some UHF connectors spec out as high as 32 ohms. Is this a big problem with ham radio? That depends on the frequency of operation. These connectors are most widely used in the HF portion of the radio spectrum a widely used up to 2 meters. Since they are not 50 ohms, they create what is referred to as an impedance bump. You must look at these connectors in wavelengths. The wavelength is so short on HF we really do not see any noticeable issues. If you sweep a transmission line with a Time Domain Reflectometer (TDR), you will be able to see where all the UHF connections are. With the TDR display you will see a tiny bump on the display. This is not a major issue when used on 2 meters or below. But start using these connectors in the 440 mhz range and you will have some issues. Now the wavelength of the connector is getting electrically longer. The result of using a UHF connector in this range will show up in an elevated SWR as well as insertion loss.

I have compiled a list of the most widely used RF connectors so you can choose the best connector for your application.



Threaded Neill-Concelman connector (TNC)

50 ohms useful up to 11 ghz

500 volts maximum

Invented in the late 1950s and named after Paul Neill of Bell Labs and Carl Concelman of Amphenol



Bayonet Neill-Concelman Connector (BNC)

The basis for the development of the BNC connector was the work of Octavio M. Salati.

Named after Paul Neill and Carl Concelman.

50 ohms useful up to 4 ghz

500 volts maximum

Three versions are available: 50 ohms, 75 ohms and 95 ohms.

95 ohms used for video

Take notice of the Teflon insert surrounding the center pin. That will qualify it as a 50 connector.



Subminiature version A (SMA)

50 ohms useful to 18 ghz and some up to 26.5 ghz

SMA connectors are rated for up to 500 mating cycles

Developed in the 1960s

Most used for hand-held radio and mobile telephone antenna, and more recently with WiFi antenna systems

Reverse polarity versions used in Wi-Fi

500 volts maximum



Type N connector

50 ohms useful up to 11 ghz

Available in 75-ohm versions

1500 volts maximum / dielectric withstanding voltage 2500 vrms

Perfect match: 5000 W at 20 MHz and 500 W at 2 GHz

Originally, the connector was designed to carry signals at frequencies up to 1 GHz in military applications

Invented in the 1940s by Paul Neill of Bell Labs



UHF Ultra High Frequency Connector (PL 259 / SO 239)

23 ohms as per W1ZR, June 2017 QST

23 ohms up to 32 ohms depending on the manufacture

Originally designed for radar use up to 300 MHz

500 peak voltages

Old days, 30 MHz and up was considered UHF

Suggested not to be used above 100 MHz



7/16 RF DIN type connector

Deutsches Institut für Normung (DIN), the German national standards organization.

50 ohms useful up to 7.5 ghz

Maximum voltage 2500V



F type connectors

75 ohms useful up to 2 ghz (4 ghz)

Invented by Eric E. Winston in the early 1950s while working for Jerrold Electronics on their development of cable television.

When it comes to attaching an RF connector to coax, the best way to do this is with a crimp connection.

A word of warning when it comes to any crimp connection. Crimp connectors are designed to be used with stranded wire only, not solid wire. Whether it is an RF connector or a ring terminal, like the ring terminal pictured below, the wire must be stranded.



When it came to putting PL 259's on coaxial cable, I tried different methods. First, I pre tinned the shield of the coax before inserting the coax in the PL 259. I had one fail. The next thing I tried was to drill out the solder holes in the PL 259 to make them much bigger. I also used a high wattage soldering iron. By doing both I was

able to allow the soldering iron to touch the pre tinned copper of the coax to make sure everything got hot and hot fast. It really looked like an exceptionally good connection. Again, I had one fail. Of the times I had failures with the connector, it was always with the shield connection to the RF connector.

If you look at dealers that sell quality coaxial cable with connectors already on, they use crimp connection. Since I changed to attaching crimp connectors to coax, I have never had a failed connection.

Pictured below is a quality crimping handle, a die to be used for RG 213 or LMR 400 and a PL 259 crimp type connector.



Coaxial cable like some LMR 400 and 9913 coax use a solid center conductor. Here lies a problem but it is correctable. Once you attach the connector to the coax and crimp the shield, you can also crimp the center pin to the solid center conductor. Once completed, you must solder the center pin to the center conductor. This is an acceptable practice.

Here is another obstacle. There are two different size PL 259 crimp connectors. For those dealers that only sell one size fits all, they are selling the connector designed to work with LMR 400. The difference is the center conductor on LMR 400 is bigger than the center conductor on RG 213 or RG 8U. When putting these connectors on RG 213, you do not get the proper crimp connection on the center pin. Again, applying a dab of solder will resolve this problem. The proper crimp connector for RG 213 is part number RFU-507-ST. By using the proper connector, you no longer must solder the center pin, but it will not hurt if you choose to do so.

DX Engineering and Max Gain System both sell the crimping handle and die or dies needed to crimp connectors. I purchased my crimping package from Max Gain System.

The crimping tool sells for \$45 and each set of dies sells for \$15. You can get a package deal of five dies and the crimping tool for \$99. They sell dies for, RG 213, RG 8X, RG 316, Anderson Power Poles, and ring terminals.

HOW TO SUBSCRIBE TO THE DLARCforum

Go to <https://mailman.qth.net/mailman/listinfo>

You will see at the top "QTH.net Mailing Lists"

Look at the blue side bar

Click on "Directory of Lists"

Scroll down until you see "DLARCforum"

Click on that.

Look for "Subscribing to DLARCforum"

Fill in the Email Address box

Your name – put your legal call sign. *This keeps out spam bots and junk subscription. Call signs make it easier to find your subscription and see where the problem is. I will contact you for a call sign if there's none.* For example:

John, N3ABC is what is needed. No call sign may slow down your subscription.

Enter a password

Reenter your password

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's a message about you approving that you did subscribe.

Your subscription will go to the Administrator to check over. Then I will pass it on.

You should get a "Welcome Message".

John Holmes, N3IGA DLARCforum Administrator



67th PA QSO Party October 14 & 15, 2023

(Always the 2nd Full Weekend in October)

paqso.org

Saturday, 14 October 2023

1600 – 0400 UTC / Noon - Midnight EDT

Sunday, 15 October 2023

1300 - 2200 UTC / 9:00AM - 6:00PM EDT

Work from your home station or use the Club Station. If you use your home station, use any logging program you can find on the PA QSO Party website. You can ask anyone what is the best one that you do not have to buy.

To give your score to DLARC, fill out the contact information before the logging program starts. Where it says “Club,” fill in **Delaware-Lehigh Amateur Radio Club** and the Club will get your score.



If you are new to Ham Radio or do not have an HF station you are invited to come to the Milk House where the Club Station is doing the Party under the W3OK call sign. You will be able to work in the bands under the highest-class licenses that are there!

With everyone’s help, DLARC may have a chance to win the Top Club award!

Be sure to check paqso.org for FAQs about the QSO Party.

For any other questions, contact John, n3iga@ptd.net

DLARC in the PA QSO Party

By Barb, W3ATC, DLARC Historian

The 67th annual PA QSO Party will be held Oct 14 and 15, 2023. The first event was held in 1957 and DLARC has had an auspicious history with the contest since 1981, when a club entry category was added to the weekend. Under the leadership of Ray Bilger W3TDF, during the 12 year stretch from 1989 to 2000, DLARC garnered 8 first places and 3 second place finishes.

In 1985, DLARC voted to become a sponsoring club for the PA QSO party and pay for an award plaque. That year the club placed 5th, slipped to 9th in 1987, and rose to 3rd in 1988. Then began the remarkable string of victories.

In 1989, 60 members contributed to the club effort. Bill K3ANS and Mark N3EOF were given watches with the DLARC logo to recognize their outstanding performance. The club also made commemorative patches to celebrate the achievement. DLARC again took top honors in 1990.

After the 2nd place finish in 1991, Ray orchestrated a catchy slogan campaign (such as Do not be loafy, Get back the trophy; Please, let us not be slack, Let us get the trophy back; and Do not let your buddies down, Bring the trophy back to town) to drum up enthusiasm for 1992. It worked and DLARC regained first place. The club gave engraved commemorative pens to each participant.

In 1993, DLARC again had 60 operators, took first place, and awarded plaques to the 12 members who scored over 50,000 points. The next year, with another first place, DLARC presented plaques to 21 high scorers and certificates to the other operators. When DLARC took 1st place in 1995, the club racked up double the points of the second-place club, and again awarded plaques to the high scorers.

DLARC operated from Bushkill Township Elementary as a Special Events Station in 1996, took first place, and gave patches to participants. The last time the club took 1st place was 1998, giving the club 8 first place finishes in 10 years. In 1999 and 2000, the club finished 2nd.

In addition to leading the club efforts, Ray held many county records scores. He would load his trailer, head for a county that had a small number of operators, set up his station there, and attempt to establish a new record score. All this was done alone, including setting up his beam antenna. Ray still holds 9 county records – Sullivan 1992, Fulton 1998, Juniata 2000, Indiana 2002, Union 2003, Wayne 2005, Montour 2006, Franklin 2010, and Clearfield 2013.

In 2007, after the death of Norm Zoltak K3NZ, an avid contester, the club announced the creation of the Norm Zoltack PA QSO High Score Award to be given to the club individual with the highest QSO score. The winner receives a personal trophy and their name on the plaque in the Milk House. The first winner was Jay Mason N3OW, who tallied 199,630 of the club's 491,979 points that year.

DLARC was the QSO bonus station in 2008 and gave out almost half a million points to operators who contacted the station. DLARC did not snag any more first place awards, but finished 4th in 2009, 3rd in 2010, 2nd in 2011, and 4th in 2012. In 2022, the club placed 11th among the 13 PA clubs who submitted between 3 and 25 logs, logging 34,867 points.

**“MAKE A DIFFERENCE,
ATTEND A MEETING.”**

ARRL Membership and Renewals

It is time that all ARRL Members need to check their QST mailing slip to see when their membership expires. This is important, especially now with the new dues starting on 1 January 2024. I hope by now you have received the new dues information by email or mail. If not, I will try my best to explain it to you.

The dues went up \$10 from \$49 to \$59. The biggest change is that if you want to continue getting QST or On The Air magazines in print, it will cost you \$25 per magazine. If you just want to get them in digital form, it does not cost you anything more. After 1 January, everybody will be receiving the magazines in digital form unless you are a Life Member and you have a choice. In fact, I was notified by ARRL about continuing getting QST in printed form, I told them yes because I spend enough time on the computer that I did not need to read a magazine on it.

So, contact me if you want to become an ARRL Member or renew your membership. If you do it through the Club, the Club gets a commission. Contact me at n3iga@ptd.net and I will send you the form to renew or become a new member. I will explain everything to you so it will be easy for you.

John, N3IGA DLARC ARRL Membership Liaison

DLARC NET QUICK CHECK CALENDAR

October 2023

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3 Radio Classes 7-9 pm	4 DLARC NET Dave N3EYT	5 DLARC MEETNG 7 0pm	6	7
8	9 COLUMBUS DAY	10 Radio Classes 7-9 pm	11 DLARC NET Al W3CE	12	13	14 PA QSO PARTY
15 PA QSO PARTY	16 BOARD MEETING 7PM	17 Radio Classes 7-9 pm	18 DLARC NET George N3SQD	19	20	21
22	23	24 Radio Classes 7-9 pm	25 DLARC NET Ben N3WR	26	27	28
29	30	31 Radio Classes 7-9 pm	27 DLARC NET ?????	28	29	30

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.

OFFICERS

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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 – W30K@arrl.net

THE W30K TRUSTEE --- Barry Vogt / N3NVA

The W30K Corral is published monthly and is the Official Publication of the

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