DELAWARE LEHIGH AMATEUR RADIO CLUB Inc. OCTOBER 2019







Club Meeting October 5th, 7:30PM At the Bethlehem Township Community Center OCTOBER PROGRAM

" Elections & Award Presentations " John / NT3P & Terry / KC3JHT

SEPTEMBER PROGRAM REPORT



"Drones & Practical Applications" AI / W3CE

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 ROSH HASHANAH ENDS	2 DLARCC Net (K3PDL)	3 DLARC Meeting 7:30 PM	4 NO VE SESSION	6
6	7	8	9 DLARC Net (W3NAM)	10	11	12 PA QSO PARTY
13 PA QSO PARTY	14 Columbus Day	15	16 DLARC Net (ND3JJ)	17	18	19 HALLOWEEN PARADE
20	21	22 DLARC BOARD MEETING	23 DLARCC Net (KC3MKP)	24	25	26
27	28	29	30 DLARCC Net (W3CE)	31 HALLOWEEN		

OCTOBER CONTESTING AT THE OK CORRAL

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	eania DX Contest - SSB
	ssian WW Digital Contest
October 12 & 13 – Oce	eania DX Contest - CW
– PA	QSO Party
October 19 & 20 - Wo	rked All Germany Contest
– DA	RTS WW RTTY Contest
October 26 & 27 – CQ	WW DX Contest - SSB



VE TEST SESSION

There will not be a test session this month. The next session will be on November 8th at 7 PM at the Northampton County 911 center. Pretest registration is required. Contact John / NC3P at nc3p@arrl.net

NEW MEMBERS

The DLARC is continuing to grow, so be sure to greet our new members, shake their hands, and give them a warm welcome to our club. The newest members are is John Pontsler / K3JAR and Richard Becker Sr. / KC3HSM.

AUGUST MEETING MINUTES

A General Meeting of the Delaware-Lehigh Amateur Radio Club was held on Sep. 5, 2019 at the Bethlehem Township Community Center, Bethlehem, PA.

President, Stephanie Koles, WX3K, called the meeting to order at 7:30 p.m.

President's Report:

The President welcomed all and asked what everyone did over the summer.

Some reported they did antenna work, yard work, and shack cleaning. Dean, AB3BD reported he continued to work with the National Museum of Industrial History and showing visitors the HF Station setup/Operation of the same, also anyone interested should check out their website under the "Events" tab called "Ham Radio Live" that highlights the Delaware-Lehigh Amateur Radio Club <u>http://nmih.org/event/ham-radio-live-2</u>

She then asked if we had any Visitors. AJ3C, Christopher Saunders, President of the Eastern Pennsylvania Amateur Radio Association was welcomed and invited all to visit them anytime. Their meetings are on the 2nd Thursday of the month at the Monroe County 911 Control Center beginning at 7:30pm and to check out their Web Site at: <u>www.qsl.net/n3is</u>. Also K3WPS, Wayne Purse who was a member years ago and has moved back here wishing to rejoin. Also stating he has some gear to sell and if anyone was interested see him after the meeting plus he has a lot of it with him in his car if they care to see it.

Bob Green, KE3AW also spoke on the Special Event Station from the Museum. He then gave his report on our Ham Classes. And he reported on this year's Halloween Parade on Oct 19th and if anyone wanted to help contact him. **Member Announcements**:

Dean Guth, AB3BD, reminded members that National Museum on the Air Day is Sept. 21st. The National Museum of Industrial History has invited us to participate, either at your home station, the Club station, or at the museum. The museum

will use the call sign N3M and has designed a special QSL card for the event. The Museum will be open from 9 am to 6 pm. **Secretary's Report:** Acting Sec., W3LES, Les announced that the Minutes for the August 2019 General Meeting were

emailed to the membership, and asked if anyone wanted them read. Dean Guth, AB3BD, moved to accept the

Minutes; it was seconded, and so moved.

Treasurer's Report: None

Committee Reports:

By-Laws: None

- <u>Club Station</u>: Les stated the Station is still there stop by. Also the remolding is still ongoing and Hopes to be done before the end of the year. George Wieland, N3SQD, reported that they know what the problem is and we need to determine how to fix the rotator. They will then report to the Board for a decision.
- Education: Bob Green, KE3AW, announced that we have 17 Tech and 4 General in the classes.
- Field Day: Chair Jim Matlack, KC3MKP, thanked everyone who came out for Field Day; and is looking forward to next year with improvements.
- <u>Membership</u>: Membership Chair Terry Swinney, KC3JHT, Proposed 2 Applications :1st K3JRP, John R Pontsler 2nd KC3HSM, Robert Becker, Sr., motions were had on both and both were elected to membership. As of this date there are 192 total members.
- Nominating: John Barbaz, NT3P, announced The Slate of Officers for the New Directors, for the new year. They are: President; Stephanie Koles, WX3K, Vice President; Steve Harper, W3NAM, Secretary; Larry Kaplan, AB3TY, Treasurer; Mike Grower, KB3LOD. And for Directors: Dean Guth; AB3BD, Lester Morrow; W3LES, Gabe Lantos; KZ2A, Stephen Nordahl; NS3L, and William Connelly; W3MJ. The Floor was then open for any other Nominations. Hearing None, the Nominations were closed.

<u>Sickness</u>: A report was given on William Goodman, K3ANS and that he was in St. Lukes(Fountain Hill) and improving slowly and looking to sell his gear. .Please contact him, Mark Bond, W3MB, or David Blankenship, N3EYT, if you would like to take a leadership role in the Club.

New Business:

George Wieland met with Jeff Steiert, Deputy Director for Systems of Northampton County Emergency Management Services. The County has discontinued Project Lifesaver, which utilized a radio direction finder system to locate missing people with dementia. The County has offered to donate the Doppler System DDF 6002 to the Club. Although it is a large piece of equipment, it could prove useful to us, e.g., it would help us track down anyone keeping the repeater open. We are in the process of completing the paperwork.

Adjournment: There being no further business, the meeting was adjourned at 8:12pm .

Minutes submitted by

Acting Secretary, Les Morrow / W3LES

PROGRAM CHAIR PERSON

Evelyn / W3DOY, our program chairperson is stepping down after presenting many outstanding meeting programs. We are now in the need of a member to fill this position. If any member is interested in filling the position, contact any executive committee member an dlet them know your interest.

Official 2019 DLARC Secretary's Ballot

This year, since there is only one candidate each for Vice-President, Secretary, and Treasurer, and for each of the Director positions according to the DLARC By-laws, "when there is only one candidate for an office, the Secretary shall cast the necessary vote" for those positions.

President Stephanie Koles / WX3K . Vice President Steve Harper / W3NAM Secretary Larry Kaplan / AB3TY Treasurer Mike Gower / KB3LOD Director Gabe Lantos / KZ2A Dean Guth / AB3BD Lester Morrow / W3LES Bill Connelly / W3MJ Stephen Nordahl / NS3L

PENNSYLVANIA QSO PARTY 2019

October 12 & 13 are the dates for the 2019 PA QSO Party. As in the past the DLARC is hoping to regain its position as the number one club in the state. Now is the time to check your station and antennas, so you are prepared for the party. The Norm Zoltak / K3NZ award for the highest scoring single operator station will be awarded again this year.



THE DLARC K3NZ PAQSO AWARD

This award is named in honor of Norm Zoltack, K3NZ and will be awarded to the club individual earning the highest score in the club during PAQSO party. Norm was a super contester and a guiding force in his 40 plus years with the DLARC. Requirements:

- 1. You must be a single operator.
- 2. You must apply your score to the DLARC's aggregate.
- 3. Portable, mobile, rover and home operations count.
- 4. You can operate from any county.

EMMAUS HALLOWEEN PARADE - 2019

An annual enjoyable and very helpful public service event, the Emmaus Halloween Parade is scheduled for the evening of Saturday, October 19 (Rain date Sunday, October 20). Annually DLARC assists this activity by providing communications during the entire parade.

We will need 16 amateur radio operators to properly cover this event, in which the hams are in their vehicles, using 2meter rigs, interspersed between parade units throughout the parade. This allows us to have eyes and ears from beginning to end, all along the parade route. We will watch for any problems, including breaks in the parade progression, rowdy behavior, etc., and report them to net control where the proper authorities will be contacted to correct the problems and keep the parade moving along safely.

After the parade we'll have our traditional Dutch Treat social gathering at a local restaurant. This Halloween Parade has been successful for about two decades, and is recognized by the Emmaus Halloween Committee as a prime reason for smooth operation of the parade.

Anyone interested in participating in this year's parade, please contact Bob, KE3AW@arrl.net or 610.432.8286.

Bob / KE3AW

WEDNESDAY EVENING DINNER CLUB

Don't forget the Wednesday Evening Dinner Club. Club members get together for dinner prior to heading up to the "Milkhouse" for the weekly gathering. Listen to the Wednesday Net for the following weeks location. Each week is a different location. Also it is posted on the club FORUM. A fun get together!

SEPTEMBER MEETING PROGRAM REPPORT DRONES & PRACTICAL APPLICATIONS

AI / W3CE

Drones have become the latest fad, and Al brought in his latest toy. He began with, "Get an Elmer before you do anything". Al then continued explaining that drone flying comes under Federal Aviation Authority rules and regulations. They include licensing went over a certain weight and areas where flights are limited and also areas that are completely banned.



Al continued with a summary of the bells and whistles which a drone could come with, limited only by the depth of your wallet

With a video, a campground near Palmerston was presented. Al did this for the campsite's Facebook page and other advertising purposes.

With with another video, AI now presented an Aerial view of this year's Quartz fest in Arizona, which he and Barbara have attended for the past several years and this is an annual gathering for ham radio operators and covers many square miles of camping. This is where he first saw drones and he went on from there. Although he flew remote control craft in the past.

Also by video, Al showed the club station's, at the Gracedale complex, beam antenna an rotor, which has been having some issues. This video was part of the visual scan by a drone, while attempting to find the issues that have been plaguing the antenna recently

Al finished up with the usual question and answer session. Another interesting presentation for our meeting.

MONTHLY BRAIN TEASER

"A special prize awaits the first Club Member to submit the correct answer to this month's Brainteaser to the Pete / NL7XM, only, at nl7xm@arrl.net The winner must be present at the next Meeting to receive it, or it goes unrewarded. Officers, Board members, Newsletter staff, and Brain Teaser Authors are not eligible to win."

de Pete / NL7XM

SEPTEMBER BRAINTEASER ANSWER

"An Almanac." The winner is Barb / W3ATC

OCTOBER BRAINTEASER.

I am composed of 4 letters, My first's in a fish, but not in owl. My second's in shad, but not in a fowl. My third's in a crab, but not in a quail. My fourth's in a mackerel, but not in it tail. My whole s a thing that pays to hoe well. What am I?



REFLECTIONS FROM THE PAST



FIELD DAY 2011 George / N3SQD & AI / W3CE

ENDING THE GREAT RADIO SILENCE AFTER "THE GREAT WAR"

Practical wireless was still in its infancy at the turn of the 20th century and unregulated experimentation rampant. Chaos reigned on the airwaves. Given the technology of the day -- spark gap transmitters that emitted very, very broad signals -- interference was a problem. As Al Brogdon, W1AB, explains in "The World War I Shutdown," in the September 2019 issue of *QST* (p. 70), hams, passenger ships, and the US Navy were the main users of wireless, and the Navy went to Congress in an unsuccessful effort to wrest control over radio and, effectively, abolish ham radio in the US. Radio amateurs opposing the bill had an ally in the Marconi Company.

When the US in 1917 joined the European conflict that became World War I, the federal government ordered hams to disassemble their stations, lower their antennas, and not use transmitters *or* receivers. Many hams who joined the military took their own radio gear along, because, as Brogdon explains, "the military didn't have enough radio equipment."

The end of the war did not mean the resumption of Amateur Radio. Hams were allowed to use their receivers again but not transmit. The Navy was still in charge of all US radio communications, and another bill introduced in Congress proposed handing over ongoing control of all radio to the Navy.

Publication of QST also ceased during the war, and many hams had let their ARRL memberships lapse for the duration. ARRL officers and key members dug into their own wallets to thwart the bill, mailing a "Little Blue Card" to members urging them to ask their congressional representatives to oppose the Navy proposal. ARRL President Hiram Percy Maxim went to Washington to speak against the bill, which died in committee.

It was not until 1919 -- amid another Navy effort to gain control over radio that was stalled by opposition from hams and others -- that the transmitting ban was lifted by an act of Congress. As Brogdon explains, "Maxim went to Washington again and found a sympathetic ear in Massachusetts Congressman William Greene, who ultimately introduced the successful House Joint Resolution 217, which asked the Navy 'to remove the restrictions on the use and operation of Amateur Radio stations throughout the United States."

Hams were back on the air by the fall of 2019 -- 100 years ago!

160 YEARS SINCE THE CARRINGTON EVENT

September 1 marks the 160th anniversary of the Carrington Event, the strongest geomagnetic storm known to have hit Earth since at least the 14th century. The event was named for British astronomer Richard Carrington, who first viewed and sketched the huge sunspot complex on the sun from which a gigantic solar flare -- a coronal mass ejection -- erupted, as he watched. Within hours, Earth was virtually enveloped by an aurora borealis that was visible even at lower latitudes and into the tropics. It was a truly spectacular light show that in some places, turned night into day. When the flare interacted with Earth's magnetosphere, however, it was another story.

This was the Victorian age, when practical wireless was still a few decades off, but the "auroral phenomena," as it was called then, had "a remarkable manifestation of magnetic influence" on telegraph wires -- the internet of the day, as it were.

So considerable was the effect that *The New York Times* reported telegraph operators were able to disconnect the batteries that normally operated the system and were "working by the atmospheric current entirely!" Although the operators subsequently were able to reconnect their batteries, the storm continued to affect the lines. A telegraph manager in Pittsburgh reported "streams of fire" emitted from the circuits. In Washington, DC, telegraph operator Frederick W. Royce was severely shocked as his forehead grazed a ground wire. A witness said an arc of fire jumped from Royce's head to the telegraphic equipment.

The *Times* account quoted an operator in Worcester, Massachusetts, who said, "During ten years' experience in telegraphing, I have frequently observed the effect of the Aurora Borealis on the wires, but never before have I seen it so grand and appalling."

Operators said that at times the polarity of the battery power supply would become reversed. "One moment the batteries would begin to boil over, and we would have so strong a circuit that the armature would not come away from the magnet; the next moment, there would be no current at all," a report from Quebec recounted.

Based on examinations of ice samples, scientists believe that geomagnetic storms two and three times stronger occurred prior to the 14th century.

After the Carrington Event, scientists began paying a lot more attention to solar phenomena and sunspots. --Thanks to Frank Donovan, W3LPL

144 – 146 MHz REMOVED FROM FRENCH PROPOSAL FOR ADDITIONAL AERNAUTICAL APPLICATIONS

The 144 – 146 MHz Amateur Radio segment has been removed from a French proposal to study spectrum additional for Aeronautical Mobile Service (AMS) applications. France had included the band, which comprises the entire 2 meter band in ITU Region 1, for consideration as a European Conference of Telecommunications and Postal Administrations (CEPT) position for World Radiocommunication Conference 2019 (WRC-19). Heading into a just-ended CEPT Conference Preparatory Group (CPG) meeting in Turkey this past week, France was holding firm on the proposal to have AMS share 144 – 146 MHz with Amateur Radio. The CPG meeting considered CEPT ECC positions on this and other issues for WRC-19.

The International Amateur Radio Union (IARU) had called the French proposal for 144 – 146 MHz "unsound" and contended that sharing of the current amateur allocation with AMS radio systems would not be possible "without a significant likelihood of mutual interference."

The French spectrum study proposal would have had to gain approval from at least 10 CEPT countries at the CPG meeting — with not more than 6 opposing — to appear on the agendas of WRC-19 and WRC-23, where a final decision would be made.

Also at the CEPT meeting, at the insistence of the European Commission, a WRC-23 agenda item was considered necessary to address world-wide protection of Regional Navigational Satellite Systems (RNSS) from amateur emissions in the 23 centimeter band, 1240 – 1300 MHz. Delegates agreed to a draft WRC Resolution that stresses the importance of the band to the Amateur Service and explicitly excludes the removal of existing allocations as part of the proposed agenda item. The issue stems from reported incidents of interference to the Galileo GPS E6 signal on 1278.750 MHz.

Other Amateur Radio-related issues addressed at the CEPT CPG included:

Agreement to a European Common Proposal (ECP) on allocating 50 – 52 MHz to the Amateur Service in Region 1 (Europe, Africa, and the Middle East) on a secondary basis, with a footnote listing those countries where the Amateur Service will have a primary allocation in the band 50 – 50.5 MHz (WRC-19 Agenda Item 1.1).

Agreement to an ECP on spectrum to be considered for International Mobile Telecommunications (IMT), which does not now include the primary Amateur Radio band at 47 – 47.2 GHz (WRC Agenda Item 1.13).

Agreement to an ECP that retains the current regulatory position in the 5725 – 5850 MHz band that includes secondary Amateur Radio and Amateur Satellite allocations (WRC Agenda Item 1.16).

No change to an already agreed upon CEPT position on wireless power transmission (WRC Agenda item 9.1.6). This calls for no change in the *Radio Regulations* to address the question of operating frequency for wireless power transmission for electric vehicle charging (WPT-EV), but leaves open the question of spurious emissions from WPT-EV.

IARU Region 1 President Don Beattie, G3BJ, said that the IARU team at Ankara — the only representatives of the Amateur Service at the meeting — had presented clear and convincing arguments for Amateur Radio positions and that he was pleased that regulators had recognized the strength of the amateur case. He expressed his thanks to everyone who contributed to the outcome at CPG.

CEPT is one of the six regional telecommunications organizations but viewed as the most influential. The issues now move to WRC-19 in Egypt this fall for final resolution. IARU will be represented at the international gathering, which gets under way in late October. —Thanks to IARU

LOOKING FOR DLARC AMATEUR RADIO OPERATORS TO WORK THE DEMO HAM STATION IN THE NATIONAL MUSEUM OF INDUSTRIAL HISTORY.

On Exhibit through November 3, 2019

Sign up to operate the amateur radio station at the National Museum of Industrial History The demonstration ham shack is in the National Museum of Industrial History, and is available to any licensed amateur radio operator to operate (within license limitations). In the corner of that room is a great collection of radios. They range from crystal sets through radios through the decades with cathedral wooden cabinets, console units, plastic table radios, small transistor pocket radios, and boom-boxes. There are over 75 units there to stir up memories, or learn about them.

The demonstration ham shack that we are operating is in the corner of the room, and is available to any skilled licensed amateur radio operators to operate (within license limitations).

Or you may want to match a skilled operator and one who wants some experience.

The rig there is the Kenwood 590. It is like the one in the DLARC Station. Antenna is a Cushcraft R-7 on the roof of a tall 3-story building.

I don't think it is really crowded at any given time, but when someone comes by we would like you to offer some information on amateur radio to whatever level their interest is, including making them aware of Monthly Meetings, Field Day, and DLARC license classes. They may make a transmission or more if you feel they can follow your directions, under your supervision, of course. All up to you.

If visitors come by, that's great. If there aren't any or many visitors during your shift, you still have control of the rig to make as many Qs as you wish.

Go to the sign-up sheet, fill in information and send it to the Museum. <u>http://signup.com/go/wNkozVD</u> It is fine to have a couple of hams there. I need not be one operator at a time.

The Museum is located near the Steel Stacks, at 602 E. 2nd Street, Bethlehem.

Open 10 am. until 5 p.m. Wednesdays through Sundays 610.694.6644 www.NMIH.org

FCC SEEKS TO STREAMLINE ITS HEARING PROCESS

The FCC is asking for public comments on procedural changes that, if adopted, would streamline many administrative hearings under the Communications Act of 1934, as amended.

"Currently, these hearings typically are conducted like trials in civil litigation and include, among other things, live testimony before an administrative law judge, cross-examination of witnesses, and an initial decision by the administrative law judge that is subject to review by the Commission," the FCC said in a Notice of Proposed Rulemaking (NPRM) in EB Docket 19-214. The FCC said its proposals "are designed to supplement the Commission's current administrative law judge referral process and promote more efficient resolution of hearings."

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The NPRM can be found in PDF format at, https://docs.fcc.gov/public/attachments/FCC-19-86A1.pdf If adopted, the proposals would:

* Codify and expand the use of a process that would rely on written testimony and documentary evidence in lieu of live testimony and cross-examination.

* Enable Commission staff to act as a case manager that would supervise development of the written hearing record when the Commission designates itself as the presiding officer at a hearing.

* Dispense with the preparation of an intermediate opinion, whenever the record of a proceeding can be certified to the Commission for final decision.

According to the FCC, the proposed procedures would expedite its hearing processes, consistent with the requirements of the Communications Act and the Administrative Procedure Act (APA) while ensuring transparency and procedural fairness.

The FCC's current hearing rules provide that "any hearing upon an application shall be a full hearing in which the applicant and all other parties in interest shall be permitted to participate." The FCC noted that it has, on numerous occasions, curtailed the use of

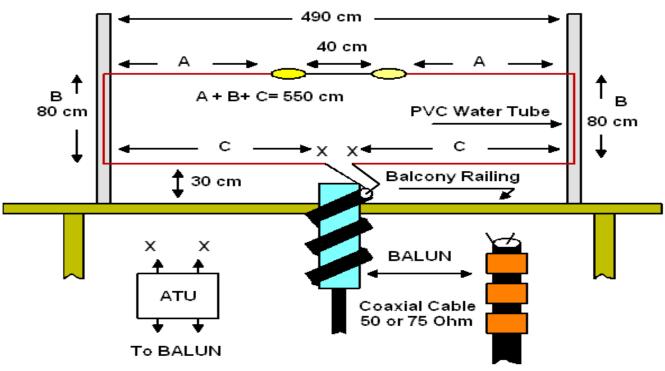
oral testimony and cross-examination in particular proceedings, in order to expedite the hearing process.

"In our experience, disputes in Commission proceedings typically involve criticisms by one party of the evidence proffered by another party or the legal significance of that evidence, not actual conflicts in testimony between two witnesses concerning outcome-determinative facts," the FCC said.

"We contemplate codifying and expanding the use of a written hearing process that can be used in most adjudicative proceedings, including those conducted by an administrative law judge. In particular, we propose to authorize the presiding officer to conduct a written

hearing whenever factual disputes can be adequately resolved on a written record."

Among other proposed changes, the FCC would prohibit staff members who have taken an active part in investigating, prosecuting, or advocating in a case from serving as a case manager and from advising or assisting the case manager in the same case.



Balcony Antenna for 20- Meter Band

Description and pictures of the Balcony Dipole Antenna for the 20 Meter were published in ham forum at <u>www.cqham.ru</u>. Author of the antenna is unknown to me. However the antenna is work and may be used in tight conditions.

Antenna may be made practically from any wire (strand, solid) having a reasonable diameter **4** 0.5- 2.0- mm ((24- 12 AWG). Antenna may be installed at any balcony of 3- 6 meter length. The main thing is that A+ B+ C should be initially equal near 5.5- meters. Antenna tuned into resonance by shortening the part A. Part B of the antenna take main role in the radiation so the parts should be as long as it is possible. Has helical wounded parts B and has no parts A.) Lower part C of the antenna should be placed at distance at least 30- cm under the balcony railing especially if this one is a metal made thing.

It would be very useful to place RF choke (or balun 1:1) near the feed point of the antenna. Most simple design of the balun may be done by the feeding coaxial cable that wound on to plastic form in 15- 30 mm diameter and contained 10- 20 turns. Also RF choke (balun 1:1) may be made by putting 5- 10 ferrite ring or several ferrite clips on the coaxial cable.

Theoretically (in the free space) such antenna has low input impedance (near 20 Ohm) and narrow bandwidth. So it may be useful to install between antenna feed point X-X and the balun a simple ATU that may be made by any known schematic. However my experience shows that near a lossy house wall and metal balcony railing such antenna may have input impedance close to 50- Ohm (so it is no need any ATU) and 200- 500 kHz bandwidth at 1.5:1 SWR on the 20- Meter band.

F.Y.I.

The November Program will be "Filming Across the Pacific & Radios of Pan Am" -- Brian Harrison / KN4R The D.L.A.R.C. meets the "FIRST" Thursday of each month. Membership, friends and interested persons meet at the Bethlehem Township Community Center, 2900 Farmersville Road, Bethlehem, Pa. 18020 at 7:30 PM. Committee reports and announcements of all present and future activities will be presented at that time. Followed by that month's program.

NORTHAMPTON COUNTY ARES, RACES AND DLARC NET

All Radio Amateurs are welcome to participate 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 147.350 (DCS 315) W3OI Repeater.

QCWA Chapter 17 holds a net Monday evenings 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 position 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 in order to conserve local bandwidth.

The OK Corral is an organization publication for the purpose of informing members of the D.L.A.R.C. of educational and training opportunities, club events, relevant news articles and a monthly calendar of daily activities, meetings and dates.

EXECUTIVE COMMITTEE 2018 – 2019 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 7:30 PM at the Bethlehem Township Community Center TALK IN ON 146.700 (PL 151.4)

Club Station Telephone Number - 484 291-1527 Email Address - w3ok146700@gmail.com

THE W3OK TRUSTEE --- Barry Vogt / N3NVA

The W3OK Corral is published monthly and is the Official Publication of the DELAWARE LEHIGH AMATEUR RADIO CLUB INC. 14 Gracedale Avenue Nazareth, Pa. 18064-9211

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