

DELAWARE LEHIGH AMATEUR RADIO CLUB Inc.



W3OK CORRAL

APRIL 2014

Club Meeting April 3rd, 7:30 PM at The
Bethlehem Township Community Center

APRIL MEETING PROGRAM

“ D-STAR Systems Today “

AI / W3CE

MARCH PROGRAM – WACKY KEY CONTEST

Keys such as have never been seen before were on display at the March meeting. Could cause Samuel Morse to roll over in his grave along with generations of CW users. The winner was Brad / W3JXQ, his was the most different ever viewed, more likely not ever again! Bob / NE2C was second with his Wacky WOK Memory key. The name itself describes his entry. Other entrants were Bob / KE3AW, Barb / W3ATC, Ben / KB3CTX, AI / W3CE, Pete / NL7XM, Evelyn / W3DOY and Paul / N3YNT. All contestants received prizes. Ben / KB3CTX prepared the keyer and set ups for the various keys.

MINUTES FROM THE MARCH MEETING

A general membership meeting of the Delaware-Lehigh Amateur Radio Club Inc. (the Club) was held on March 6, 2014, at the Bethlehem Township Community Center located in Bethlehem Township, Pennsylvania.

Call to Order: Jay Mason / N3OW, President, called the meeting to order at 1934 hrs.

Pledge of Allegiance: Led by Jay / N3OW

Member Happenings: Jay / N3OW asked if anyone participated in the ARRL International DX Contest this past weekend. Bob / NE2C stopped in at the club station and reported that Dave / N3BR was doing fabulous.

Approval of the Minutes: John / NT3P asked if there were any errors, additions or corrections to the minutes as they appeared in the last newsletter. Hearing none, Jay / N3OW asked for a motion to approve the minutes of the last meeting. **Motion:** It was moved by AI / W3CE, second by John / NT3P to approve the minutes as presented. **Motion carried.**

Approval of the Treasurer's Report: No report. Mike / KB3LOD was not present due to illness.

Club Station Report: Jay / N3OW advised that the club station is generally open weekly on Wednesday nights.

Club Repeater: Mark / W2MB reported about 2 weeks ago he noticed many stations with solid signals suddenly have noise in their transmissions and thinks it might be a receive issue with the 2 meter voter system. Barry / KU3X reported that earlier in the week Barry / K3NVA asked him to transmit into the repeater while he (Barry / K3NVA) checked the voter system. Nothing was found at that time. No additional items were reported.

Website Report: No issues were reported.

Membership Report: George / N3SQD reported there was one application for membership this month. Charles Paulson / W1PV. Later, George reported that he had membership cards for those who have paid their dues.

Licensing Classes: Bob / KE3AW reported the first session was Tuesday and there are 13 students in the technician class and 10 students in the general class. Bob added that many indicated they were seeking licensing for emergency preparedness.

Young Hams Lend a Hand Contest: Pete / NL7XM reported that Carole Perry / WB2MGP is sponsoring the Young Hams Lend a Hand Contest. The contest is open to licensed amateurs, 18 years old and younger who demonstrate that they have given assistance to elderly or disabled person or military personnel (the person receiving the assistance does not have to be a ham). Pete has details for submissions, which must be submitted by April 1st. The winner will be announced at the Dayton Hamvention Youth Forum. **Motion:** It was moved by Pete / NL7XM, second by George / N3SQD to donate \$50 to the contest fund. Discussion followed with an amended motion to donate \$73.88 to the contest fund. **Amended Motion carried.**

Recent 10 Meter Band Conditions: Bob / NE2C reported that Dave / N3BR had 89 counties on 10 meters in last weekend's contest. Barry / KU3X added that 10 and 15 meters have been open in the morning.

Club QSL Manger and Field Day Chair: Jay / N3OW reported that Steve / KB3WYJ will be the Club's QSL Manger and that this year's Field Day chair is Stephanie / WX3K.

Elaine Kelley / W3GEU (SK): Bill / K3ANS reported that Elaine Kelley passed away. She was very active in the club in the late 1950s and early 1960s. She was active in HF traffic handling and in helping disabled hams get on the air.

Trip to ARRL Headquarters: Doreen / K3PDL announced she is planning a club field trip to ARRL Headquarters in June. She will be contacting other local clubs to see if see can get enough interest to charter a bus. If you are interested in going, please contact Doreen so she can get a headcount.

VE Test Session: George / N3SQD reported the next VE test session will be this Friday.

Adjournment: There being no further business before the Club, Jay / N3OW adjourned the meeting.

The meeting was adjourned at 1955 hrs.

Respectfully submitted by John / NT3P, Secretary

APRIL QUICK CHECK CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 D-Star Mid – Atlantic 7:30 PM	2 DLARC Net (N3SQD)	3 DL ARC MEETING 7:30 PM	4 NO VE SESSION	5
6	7 QCWA Net 8:30 PM	8 D-Star Mid – Atlantic 7:30 PM	9 DLARC Net (KB3CTX)	10	11	12
13	14 QCWA Net 8:30 PM	15 D-Star Mid – Atlantic 7:30 PM	16 DLARC Net (K3PDL)	17	18	19
20 	21 QCWA Net 8:30 PM	22 D-Star Mid – Atlantic 7:30 PM	23 DLARC Net (KB3WYJ)	24 DLARC BOARD MEETING	25	26
27	28 QCWA Net 8:30 PM	29 D-Star Mid – Atlantic 7:30 PM	30 DLARC Net (NB3R)			

APRIL CONTESTING AT THE OK CORRAL

- APRIL 5 & 6 – SP DX Contest
 - Mississippi QSO Party
- APRIL 12 & 13 – JIDX CW Contest
 - New Mexico QSO Party
- APRIL 19 & 20 – YU DX Contest
 - Michigan QSO Party
- APRIL 26 & 27 – SP DX RTTY Contest
 - Florida QSO Party



VE TEST SESSION

There will not be a test session this month. The next session will be May 2nd at 7:00 PM at the Northampton County 911 Center. Pretest registration is required. Contact George / N3SQD at george@bioserv.com or Al / W3CE at w3ce@arrl.net.

NEW MEMBERS

The DLARC is continuing to grow, so be sure to greet our new member, shake his hand, and give him a warm welcome to our club. The newest member is Charles Paulson / W1PV..

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

MARCH BRAINTEASER ANSWER

Answer: 9

The winner is Andrew / WV1B

APRIL BRAINTEASER

How many ridges does a US Dime have around its edge?

Silent Key

The D.L.A.R.C. Wishes to honor and to express its sadness at the passing of a club member or former club member.

ELAINE KELLY MARSHALL / W3GEU

Silent Key

The D.L.A.R.C. Wishes to honor and to express its sadness at the passing of a club member or former club member.

Harlan French / N3IUW

RDF BRACELET HELPS OREGON HAMS LOCATE MISSING MAN

Members of the Lane County (Oregon) Sheriff's Amateur Radio Operators (**LCSARO**) — an ARRL-Affiliated Club — used radio direction-finding techniques to locate a 78-year-old Eugene, Oregon, man suffering from dementia, who had gone missing. The man's wife reported February 16 that her husband had wandered away from the couple's home, east of the University of Oregon Campus. Fortunately, the man was one of six at-risk individuals in the county equipped with a **Project Lifesaver** RDF bracelet. As a result, the specially trained hams in the sheriff's department were able to track down and locate the missing person in downtown Eugene. He was not injured. The ham radio team minimizes the need for large-scale search parties that typically involve many agencies, hundreds of police officers, and thousands of dollars in cost. The LCSARO also supports communication in disaster and emergency situations. — *Thanks to John Bigley, N7UR, Nevada Amateur Radio Newswire*

2013 PENNSYLVANIA QSO PARTY

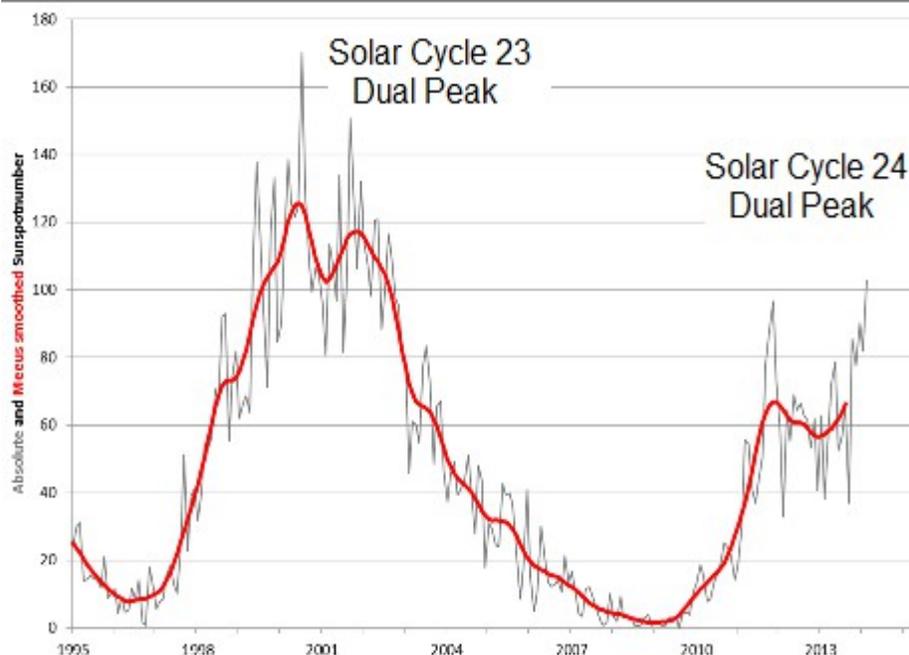
The 2013 Pennsylvania USO party results are final. Ray / W3TDF set another county score high record. This time it was for Clearfield County and a score of 141,213. In the club competition, Delaware Lehigh Amateur Radio Club came in second to the Frankfurt radio club, with a score of 617,918 points. The Frankfurt radio club has 1,728,688 points.

In the County competition the following DLA RC members had these scores. N3OW was second in Berks County with a score of 207,482. AI / W3CE was sixth in Cumberland County with a score of 2972. Bob / KE3AW was third in Lehigh County with a score of 18,276. Ben / KB3CTX was second in Northampton County with a score of 113,893 points. Tom / N3EBH was second in Union County with a score of 12,751 points. Doug / N3WGH was second in Wayne County with a score of 11,400. N3OW and KB3CTX each worked all 67 counties. The DLARC moved up to second place in the club competition, so now only one more position to gain. It will be a position we once held. These result were done with only 12 entries, so with a stronger attempt we could reach the number one spot again.

CONTEST OPERATING TIP

With the upcoming contest season here is a tip for operating comfort. Adding a footstool under your operating desk can help circulation. It doesn't have to be fancy – even a shallow cardboard box turned upside down will work fine. Adjustable height chair is also a great way to reduce operator fatigue. And avoid "sore spots" by lifting your legs above the chair cushions from time to time.

SOLAR CYCLE 24 DUAL PEAK & VERNAL EQUINOX



This is the twenty fourth solar cycle since March 1755 when recording of solar sunspot activity began. The present solar cycle 24 began on January 4, 2008. Since that time the sunspot number progression had been stagnant till the first quarter of 2010. After the stagnation it had substantially climbed a 55 degree inclination slope that resulted in it's first peak forming with a smoothed monthly sunspot number value of 65 in early 2012, half the intensity of the previous cycle 23 at 120. Later the values dropped slightly till first quarter 2013 then reversing course with a second peak forming during the first quarter of 2014. This is a repeat from the last solar cycle 23 which produced dual peaks. Between January 1 to March 10, 2014, Penticton, British Columbia, Canada 10.7 cm flux varied from a low of 121 on January 16 to a high of 237 on January 7. The monthly smoothed sunspot numbers varied from a low of 62 on January 27 to a high of 245 on January 6. Since January 1, 2014 there have been 390 C-class, 75 M-class and 2 X-class solar flares. The three classes correspond to the intensity levels from low to high. Two X1-class events had occurred. The first being on January 7 from 1804-1858 UTC, The second event was on February 25 from 0039 to 0103 UTC.

Now you are wondering why I got all excited with this solar data reporting. The Vernal Equinox will be on March 20 at 16:57 UTC. This is when the sun appears to cross the celestial equator, heading northward in latitude. With these two positive events taken place simultaneously we can expect enhanced upper high frequency (10, 12, 15 and 17 meters) and very high frequency band (6 meters) to come alive.

Now is the time to ditch your winter season hangout bands (160 - 20 meters) and start flipping those switches, dials, knobs and sliding up the band to the higher frequencies for lower power world-wide adventures. Keep in mind If you don't hear any activity on the upper bands, don't assume the band is dead. Start initiating a CQ as you might be surprised what country responds to your call. (e.g. Call sign prefix UU1J-UU8J Crimea, Simferpol, Ukraine)

The next solar cycle maximum will be in eleven years! Hope to hear you on 10 meters.

73's Mike Schaffer / KA3JAW

HAM RADIO IN THE 21ST CENTURY

Doug Grant / K1DG

Many of today's experienced engineers got their start in electronics through amateur, or "ham," radio. (Many theories exist over the origin of the term "ham radio," but there is no consensus.) Over the years, however, the demands of these engineers' work, families, and communities took precedence, and many hams lost interest and let their licenses lapse. Meanwhile, with the rise of personal communications and Internet connectivity in homes, many young engineers never needed ham radio as a way to explore electronics. They've missed the opportunity that this fascinating hobby presents.

The first wireless communicators were by definition all amateurs. Guglielmo Marconi himself, generally regarded as the inventor of radio, once famously remarked that he considered himself an amateur. In the early days of radio, commercial, government, and amateur stations shared the same spectrum, sending broadband spark-generated transmissions modulated by on/off keying using Morse code to convey messages. This practice resulted in a horrendous amount of interference among services until the government stepped in and assigned various services to specific bands.

Government and commercial stations were assigned the supposedly more useful, less-than-1500-kHz, long- and medium-wave spectrum, and the amateurs were banished to the less-than-200m wavelengths with frequencies higher than 1500 kHz. The experts of the day regarded these bands as worthless for long-distance communications.

The amateurs soon discovered that long-distance communications were actually easier at these frequencies. New allocations were then created to give government and commercial stations some of the “good” spectrum. However, a handful of slices of the spectrum were reserved for the amateurs. In the late 1960s, amateurs laid claim to all of the apparently useless frequencies higher than 30 GHz. Since then, as technology has marched on, other services have discovered that these frequencies are useful; amateurs currently enjoy exclusive rights to the frequencies greater than 300 GHz. In the United States, Part 97 of Title 47 of the Code of Federal Regulations controls the amateur-radio service. It expresses the fundamental purpose of the amateur-radio service in the following principles: recognition and enhancement of the value of the amateur service to the public as a voluntary, noncommercial communication service, particularly with respect to providing emergency communications; continuation and extension of the amateur’s proven ability to contribute to the advancement of the radio art; encouragement and improvement of the amateur service through rules that provide for advancing skills in both the communications and the technical phases of the art; expansion of the reservoir within the amateur-radio service of trained operators, technicians, and electronics experts; and continuation and extension of the amateur’s unique ability to enhance international goodwill.

Licensing

Part 97 requires that amateur stations obtain licenses before they can transmit. The process for getting a ham-radio license has evolved over the years. Long ago, an applicant had to pass a rigorous technical exam that included drawing schematics from memory. The exams have changed considerably. All of the questions are now multiple-choice and cover technical, operating, and regulatory topics, and all of the questions and answers—both right and wrong—are available in the public domain. Furthermore, the governments of many countries—notably, the United States—have effectively outsourced the job of testing.

In the United States, volunteer examiners now administer the examinations. Volunteer-examiner coordinators arrange for testing sessions at convenient places and times (**Figure 1**). Upon successful completion of an exam by an applicant, the coordinators forward the required data to the Federal Communications Commission, which then issues licenses, with call signs—to identify each licensee and his or her location of license using a prefix and a suffix. In the United States, three classes of license now exist, each conveying a set of privileges, including permitted bands, modes, and power levels. Passing a more advanced exam entitles the licensee to more privileges.

The US amateur-licensing process no longer requires knowledge of Morse code for any class of license. This requirement has historically been a major impediment for many technically skilled individuals who were interested in ham radio but who could not or would not conquer Morse code. Ironically, the portions of the bands reserved for CW (continuous-wave) operation are busier than ever, as new licensees discover that narrow-band modes are more effective for weak-signal work than are wider-bandwidth modes, such as SSB (single-sideband) voice.

Many amateurs make contacts using voice modes, primarily SSB mode on HF and FM on VHF and UHF. The signal-processing capabilities of a soundcard-equipped PC that connects to an HF SSB or a VHF FM transceiver have driven the emergence of new modes. Even a modestly equipped PC has sufficient speed to generate and decode the FSK signals for conventional radio teletype.

Experimenters have created modulation schemes and accompanying protocols, complete with forward-error correction, which enable direct keyboard-to-keyboard contacts even with low power and small antennas. The variety of FSK and PSK signals being used create unusual buzzing and chirping sounds when traveling to a speaker, and computers easily demodulate them and turn them into legible text. Some ingenious hams even use the PC’s signal-processing capabilities to emulate the signals that World War II-vintage mechanical text-to-radio systems, such as Hellschreiber, generated.

Some hams also engage in transmission of full-motion video signals—usually on VHF or UHF bands, on which sufficient bandwidth is available. Others transmit still pictures on HF, using voice-bandwidth signals and a PC. Data networks have also evolved using various systems, including TCP/IP.

FCC CHAIRMAN NAMES NEW ACTING ENFORCEMENT BUREAU CHIEF

FCC Chairman Tom Wheeler has announced that he plans to appoint Travis LeBlanc as acting Chief of the Enforcement Bureau. LeBlanc previously served as a top deputy and senior advisor to California Attorney General Kamala Harris, overseeing complex litigation and policy matters on a broad range of issues, such as technology regulation, telecommunications, high-tech crime, cyber-security, privacy, intellectual property, and antitrust.

“The credibility of the Commission’s rules depends on its enforcement activities,” Wheeler said in announcing the appointment. LeBlanc previously served as an attorney in the Office of Legal Counsel at the US Department of Justice.

The Enforcement Bureau is the FCC’s largest bureau and the primary organizational unit responsible for enforcement of provisions of the Communications Act, FCC rules, commission orders, and terms and conditions of station authorizations.

HAM RADIO OPERATORS STAY TRUE TO SOCIAL MEDIA'S LOW-TECH ROOTS

By [Rick Barrett](#) of the Milwaukee Journal Sentinel

Long ago, before Facebook, Twitter and email, ham radio operators were the original social media geeks. And they're still out there, in greater numbers than ever, chatting and messaging each other all over the world without an Internet connection or even a telephone line.

Currently, there are more than 704,000 amateur radio license holders in the U.S., an all-time high and up from 662,600 in 2005, according to the National Association for Amateur Radio.

Even with Skype and other Internet-based ways to chat, “ham” radio operators, as they call themselves, are holding their own with radio sets from the 1950s and new technologies including satellites that boost voice, video and Morse code messages.

It's social media that's more than a century old, says David Schank, a ham radio operator from Greenfield. Unlike a lot of social media, ham radio users generally don't bad-mouth each other over the air. There's a respectful tone to the conversations, even when users are from countries at odds with each other or they have conflicting political views. Ham radio communication is more person-to-person than an anonymous posting on the Internet or a tweet that nobody reads. "On the radio, you can tell if you've offended someone or said the wrong thing. It's probably best not to talk about religion or politics," Schank said. Conversations lasting more than 30 minutes are called "rag chewing."

On the flip side, some radio chats last only a few seconds as participants try to make as many contacts to far-flung places as possible in a given time period. "There's a certain thrill in it. Every time you work a new country and make a contact, it's like going fishing and catching a musky," said Thomas Ruhlmann with the Ozaukee Radio Club. (For the most part, English is the standard language for ham radio traffic, even overseas, operators say.) Ruhlmann has been a ham radio operator for 61 years. When he was a youngster, his mother got her radio license because Thomas and his brother were up all night on the radio and she couldn't sleep. Now, Ruhlmann enjoys restoring radios from the 1950s. "It's kind of like the guys who are retired now and have the hot-rod cars they always wanted as a kid but couldn't afford then," he said.

Ham radio hotbed

Wisconsin is a stronghold for ham radio enthusiasts. It has some of the nation's oldest radio clubs, and a "tower farm" near Eau Claire is known for its broadcasting prowess. On any given day, an operator here might connect with someone in Europe, the Middle East, South America or a remote island in the Pacific Ocean. By bouncing signals off the ionosphere, and even off the moon, ham radio can reach around the world. When atmospheric conditions are ideal, you hardly need an antenna.

"The fun part is getting on the radio and not having any idea who you are going to be talking with. Then all of a sudden you are connected with someone in Croatia or the Canary Islands," Schank said. Ham radio uses many frequencies across the VHF, UHF, HF and even microwave bandwidths. Operators must pass a Federal Communications Commission test to acquire a license and cannot use the radio for business purposes.

Ham isn't the same as citizen band radio, which uses far less powerful equipment for communicating over shorter distances, requires no license and uses fewer channels.

While the Internet has cut into ham radio's popularity to some extent, it also has improved technology. Portable equipment carried in a backpack uses less power than it takes to run the light bulb in a refrigerator, said Sean Kutzko, spokesman for the American Radio Relay League, founded in 1914. "People are finding it pretty darn cool that, even in the 21st century, they are able to throw a wire into a tree and communicate with somebody halfway around the world. And it doesn't involve a cellphone or the Internet," Kutzko said.

"It's kind of like electronic fishing," he said. On weekends, he sets up his portable ham radio station in a public park and literally throws a wire into a tree to see who he can connect with. Some radio enthusiasts like to see how far they can reach with minimal equipment. They've used stove pipes or bed springs for antennas to talk with someone in Russia. Some enthusiasts like to bounce signals off meteor trails, for the technical challenge, while others are more into chatting with people overseas.

Crisis communication

Ham radio is critically important for emergency communication when telephone lines and the Internet are down. Cellphone coverage also can be down in emergencies. A ham operator in Waukesha was credited for saving lives when he picked up a distress call from a sailboat in the Pacific Ocean. He alerted the Mexican Navy, which launched a search for the sinking vessel.

Ham operators routinely bring their rigs to public events, such as bicycle races, to provide communication and assist emergency medical personnel. "You can make this hobby into whatever you want it to be," said Bob Kastelic with the Milwaukee Area Amateur Radio Society.

Many friendships come from tinkering with equipment and getting involved in local radio clubs. Some ham operators have known each other for decades, over the air, even if they've never met in person.

Each operator is assigned a unique identifier call sign, which they use to initiate over-the-air conversations. When an operator dies, often their radio identifier is included in their obituary. They've gone "silent key" is the term used to note their passing

COSMIC LAWS

Truer words were never spoken

- 1. Law of Mechanical Repair** - After your hands become coated with grease, your nose will begin to itch and you'll have to pee.
- 2. Law of Gravity** - Any tool, nut, bolt, screw, when dropped, will roll to the least accessible place in the universe.
- 3. Law of Probability** - The probability of being watched is directly proportional to the stupidity of your act.
- 4. Law of Random Numbers** - If you dial a wrong number, you never get a busy signal - and someone always answers.
- 6. Variation Law** - If you change lanes (or traffic lanes), the one you were in will always move faster than the one you are in now (works every time).
- 7. Law of the Bath** - When the body is fully immersed in water, the telephone rings.
- 8. Law of Close Encounters** - The probability of meeting someone you know INCREASES dramatically when you are with someone you don't want to be seen with.
- 9. Law of the Result** - When you try to prove to someone that a machine won't work, IT WILL!!!
- 10. Law of Bio-Mechanics** - The severity of the itch is inversely proportional to the reach.

F.Y.I.

The May Program will be "Beyond the Dipole" – Barry / KU3X
March Prize winners were Andrew / WV1B, Bob / KE3AW, John / KB3UEQ, Mark / W2MB, Bill / N3BIB, and Paul / N3YNT

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.

The EASTERN PENNSYLVANIA District 2 ARES Net meets every Wednesday at 1930 hours local time. (Just after the DLARC Net) On 147.255 (pl 162.2). And linked to 449.375 on Blue Mountain, 443.350 in Allentown and 147.180 in Berks County.

QCWA Chapter 17 holds a net Monday evenings at 8:30 PM on 3960 +/- depending on conditions.

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.

The Clubhouse telephone number is 484-895-7038.

EXECUTIVE COMMITTEE 2012 – 2013 OFFICERS

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PHONE NUMBERS FOR THE EXECUTIVE COMMITTEE OF THE DLARC CAN
BE FOUND ON THE WEBSITE / MEMBERSHIP LISTING At www.dlarc.org.

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

THE W3OK TRUSTEE --- Barry Vogt / N3NVA

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

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