

DELAWARE LEHIGH AMATEUR RADIO CLUB Inc.

MAY 2019



W3OK

CORRAL

**Club Meeting May 2nd, 7:30PM At the
Bethlehem Township Community Center**

MAY MEETING PROGRAM

"Radios Of The 1931 Lindbergh Survey Flights"

BRIAN / KN4R



"Audio Aspects of Amateur Radio"

Pete / K2PM

April Program Speaker

MINUTES FROM THE APRIL MEETING

A General Meeting of the Delaware-Lehigh Amateur Radio Club was held on April 4, 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:

- a. Stephanie has taken an active role in Elmering new members and urged that more members place their names on the Elmer list, which will be posted on the website.
- b. The President extended an invitation to new licensees to come to the Club Station for the annual ARRL Rookie Roundup Contest on SSB on Sunday, April 14. It will begin at 1:00 p.m. Those licensed in 2017, 2018 or 2019 may participate.

Secretary's Report: JoAnn Schaffer, ND3JJ, announced that the Minutes for the March 2019 General Meeting were emailed to the membership on March 27, 2019. A motion to accept the Minutes was made by Dean, AB3BD, seconded, and so moved.

Treasurer's Report: Mike Gower, KB3LOD, gave his report for February 2019. A motion to accept the Treasurer's Report was made by Mark Bond, W2MB, seconded, and so moved.

Committee Reports:

- **Membership:** Chair Terry Swinney, KC3JHT, announced an application for membership from Glenn Lewis, KC3NCP, who recently got his Technician license. Dean Guth, AB3BD, moved that he be accepted. It was seconded and so moved.
- **Field Day:** Chair Jim Matlack, KC3MKP, passed around a form for people to sign up. There is another sign-up sheet at the Club Station.
- **Repeater:** Pete Madsen, K2PM, announced that the 6-meter antenna is down.
- **Technical:** Chair Al Wiemann, W3CE, said that DStar is up and running, and that he is thinking of holding a class about DStar in the near future.
- **Newsletters:** Please submit any articles for the newsletter to Don Holmes, KC3II.

Old/Unfinished Business:

- a. The National Museum of Industrial History (NMIH) has been notifying Bob Green, KE3AW, whenever a school group comes in, asking him to give a demonstration to the students. Any licensee may introduce themselves to the museum's staff if they wish to work the museum's station. NMIH will have a summer program, but they are always looking for people to do programs with the kids on anything science-related. The NMIH at the Bethlehem Steel Stacks will host a "Build Your Own Radio" program on Saturday, April 20th at 2 p.m. The fee is \$35.
- b. Mark Bond, W2MB, announced the results of the equipment auction: Bill Brennan, KC3FXT, purchased the ICOM 706MKIIG and tuner; Malcolm Leslie, KD2BDA, purchased the Kenwood TS-520, Bob Oppen, NE2C, bought the MFJ 9040 40-meter QRP CW transceiver, and the two 3-500Z tubes were taken by Pete Varounis, NL7XM. Three transceivers remain unsold. The Board will discuss the matter at its next meeting.

New Business:

- a. The Board voted to donate \$100 to the Wounded Warriors Project in memory of William Van Horn, one of the founders of DLARC. Because there are so many veterans in the Club, it was suggested that we ask the membership if we should make this an annual contribution. After some discussion, the motion was tabled.
- b. Barb Wiemann, W3ATC, will write an article for QST magazine on the 50th anniversary of WX3MAS. She would like to include member's personal recollections in the article.

Adjournment:

There being no further business, the meeting was adjourned at 8:09 p.m..

Minutes submitted by

Secretary, **JoAnn Schaffer, ND3JJ**

NEW MEMBER

The DLARC is continuing to grow, so be sure to greet our newest member, shake his hand, and give him a warm welcome to our club. The newest member is Glenn Lewis / KC3NCP..

VE TEST SESSION

There will be a test session this month on May 3rd at 7 PM at the Northampton County 911 center. Pretest registration is required. Contact John / NT3P at nt3p@arri.net

MAY CONTESTING AT THE OK CORRAL



- May 4 & 5 – 10 – 10 international Spring Contest - CW
 - ARI International DX Contest
- May 11 & 12 – CQ-M International DX Contest
 - VOLTA WW RTTY Contest
- May 18 & 19 – EU PSK DX Contest
 - Baltic Contest
- May 25 & 26 – CQ WW WPX Contest - CW



MAY QUICK CHECK CALENDAR

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 DLARC Net (W3CE)	2 DLARC Meeting 7:30 PM	3 VE SESSION	4
5 Mother's Day	6	7	8 DLARC Net (KC3II)	9	10	11
12	13	14	15 DLARC Net (N3SQD)	16	17	18
19	20	21 DLARC BOARD MEETING	22 DLARCC Net (KB3CTX)	23	24	25
26	27	28	29 DLARCC Net (K3PDL)	30	31	

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@arri.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

APRIL BRAINTEASER ANSWER

"3 Inches"

The winner is Doreen / K3PDL



MAY BRAINTEASER

A motorcar is three times as old as its tires were when it was as old as the tires are now. When its tires are as old as the car is now, the car will be a year older than the tires are now. What are the present ages of the car and tires?

AWA AWARD 218 CONVENTION AWARD

The AWA Houch Award for Preservation recognizes the acquisition, preservation and documentation of an outstanding collection of electronic communication artifacts. Nominated by Brian Harrison / KN4R, the Houch Award for Preservation was presented to Pete Varounis / NL7XM for his research, maintenance, resource work and preservation of amateur radio history through his collection of QSL cards and call books. *From The AWA Journal Winter Bulletin*

FIELD DAY 2019

This years Field Day is June 22 & 23, and is being held at All-American Park, Louise Moore was unavailable. Jim / KC3MKP is this years chairman, and although he has experience in organizing, a field day may not have been in his past. He will need volunteers to aid in his task, so that everything is not delayed until June 16th. To volunteer contact him at kc3mkp@arri.net

BOB FAMIGLIO / K3RF

Appointed to Fill Atlantic Division Vice Director Vacancy

Robert B. "Bob" Famiglio, K3RF, of Media, Pennsylvania, once again is the ARRL Atlantic Division Vice Director. Famiglio, an attorney, was appointed by ARRL President Rick Roderick, K5UR, to fill the vacancy left by the departure of Riley Hollingsworth, K4ZDH. He will serve with Atlantic Division Director Tom Abernethy, W3TOM.

Famiglio, who was initially Atlantic Division Vice Director from 2015 until 2017, is a past Eastern Pennsylvania Section Manager and is an ARRL Volunteer Counsel. He served as a District Emergency Coordinator from 2006 until 2011. Licensed since 1967, Famiglio is also an electrical engineer and former broadcast station owner and engineer. He is an FAA-certificated pilot. He is a Life Member member of the Institute of Electrical & Electronic Engineers (IEEE).

AMSTAT ANNOUNCES 50th ANNIVERSARY AWARDS PROGRAM

AMSAT has announced its 50th Anniversary Awards Program, to help celebrate 50 years of keeping Amateur Radio in space. Satellite and HF contacts can help participants to earn one of these awards:

- 50th Anniversary AMSAT OSCAR Satellite Communications Achievement Award
- 50th Anniversary AMSAT Satellite Friends of 50 Award
- AMSAT on HF 50th Anniversary Award

The 50th anniversary AMSAT OSCAR Satellite Communications Achievement Award will be issued on one of the original goldenrod paper stock certificates and signed by AMSAT's founding President, Perry Klein, W3PK (ex-K3TJE). "With only 20 original certificates available, this award will certainly become a collector's item," AMSAT said.

Complete details are on the AMSAT website. Awards cost \$25, plus postage. Certificates will be sequentially numbered.

To receive the 50th Anniversary AMSAT Satellite Friends of 50 Award, work 50 stations on any satellite — with a limit of one contact per day — during 2019. Contacts may be made from various locations, as long as the operator uses his or her personal call sign (with any appropriate locators). This award is \$15, plus postage. Complete details are on the AMSAT website.

To achieve the AMSAT on HF 50th Anniversary Award, work at least one AMSAT member on any HF band in any mode. Additional award levels are based on the number of AMSAT members you contact on the HF bands. Complete details are on the AMSAT website. — *Thanks to Robert Bankston, KE4AL, AMSAT-NA Vice President of User Services*



APRIL PROGRAM REPORT

Audio Aspects of Amateur Radio

Pete / K2PM

Pete first became interested in audio at the age of 12, when stereo first came on the market. He and his friends began build amplifiers, Speaker cabinets for their own fun. This is what led him to his passion with audio and other sound studies. Beginning the the equipment needed, an oscilloscope and a spectrum analyzer. Then continuing explaining which to use with the various checks you would be making.

Covered also were the various aspects of audio and how the frequencies of sound were modified and adjusted to the use that it was being heard. Pete explained how filtering aided in the sound quality. Also how speech processing effected the audio of you transmission.

On air signal reports were also covered, explaining how two different stations could give different reports on your audio quality and strength (RST), because different mikes sound different through the different Radio's audio filtering.

Pete ended with the usual question and answer session, and we left with a new understanding of audio and our hobby.

EXPERTS TO THE RESCUE

W2MB Photo



Lester, W3LES and Skip, KD2BDA repair Dean, AB3BD's antennas that were taken down during a recent wind storm. Dean is recuperating from an injury and was unable to get back on the air until our experts stepped in.

COMET NAMED AFTER HAWAIIAN RADIO AMATEUR

H Heather Flewelling, WH6FTQ, recently had the honor of lending her name to a newly spotted comet. A planetary defense researcher, Flewelling is a relatively new ham who upgraded to Amateur Extra class at ARRL Field Day 2018. She was working on an asteroid impact early warning system being developed by the University of Hawaii's Institute for Astronomy, funded by NASA, when she saw the comet. The International Astronomical Union (IAU) Minor Planet Center designated Comet Flewelling (Comet 2019 D1) on March 21.

"I'm a new ham (not yet a year)," Flewelling told ARRL. "I never knew it would be such a fun and exciting year for me!" Flewelling just began working in a small group, called the Asteroid Terrestrial-Impact Last Alert System (ATLAS). Its two 0.5-meter telescopes are dedicated to surveying the sky and finding near-Earth asteroids. "We occasionally find comets, and, in certain circumstances, you can get one named after you. You have to be first to report it, and it needs to be a new, unknown comet," she explained.

F Flewelling is quite active on VHF/UHF, and she enjoys hiking and Summits on the Air activations. "I've helped out multiple times for SKYWARN activations, and I'm one of the net controls for the daily net on the local repeaters here. I'm starting to get my station together for HF, but it's tricky, and I'm cheap, and I desperately want whatever I do to be the cheapest, weirdest, why-would-you-do-that solution," she said.

O One of her greatest accomplishments is working with her team to create the Pan-STARRS1 astronomical database, the world's largest. Flewelling's background is in physics, and she holds a PhD in that discipline from the University of Michigan.

"Ham radio is a hobby I should have gotten into years ago," she said on her QRZ.com profile. "As a kid, I would build crazy antennas at my mom's house, in order to pick up 'far away' FM broadcast stations and TV stations. I don't think I heard about ham radio until I was an adult, and then a combination of either lack of time or lack of money prevented me from getting into the hobby." She said an inexpensive SDR she purchased on the internet and the availability of "cheap" radios is what finally got her into Amateur Radio.

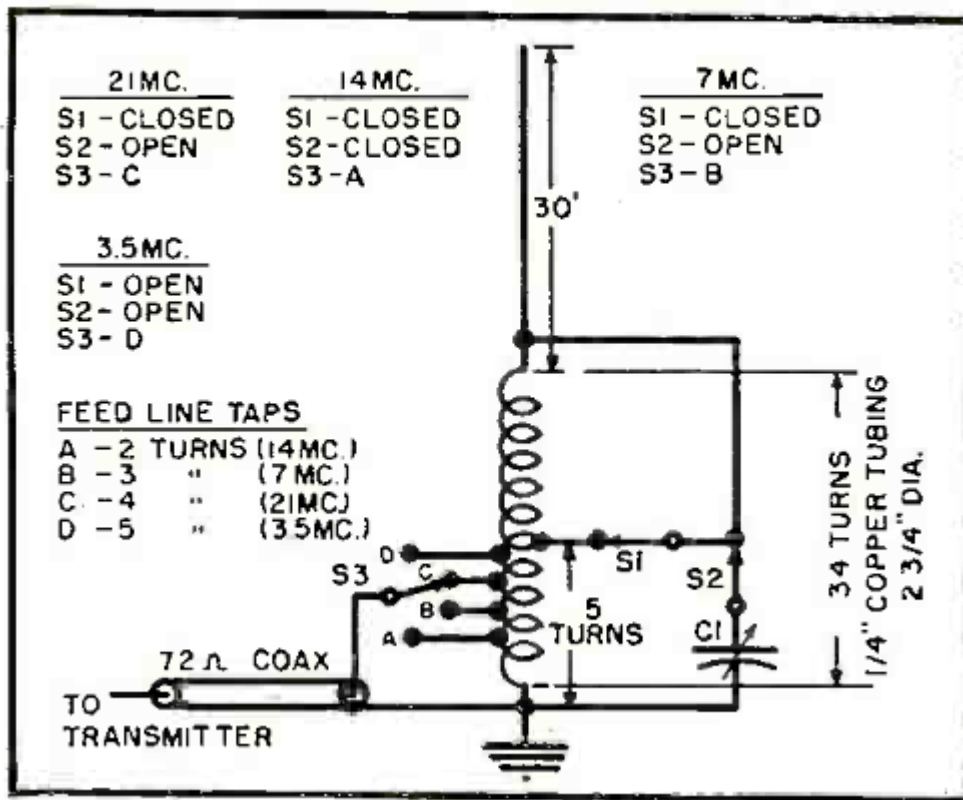
CLIFF DWELLER'S ANTENNA

K. E. Hughes / W6CIS

The accompanying diagram of the author's Four- Band Cliff Dweller's is self explanatory and might be of interest to other readers.

Let me say at the outset that such an antenna will not replace a good three- element beam on 20 or 60-foot high doublet on 80; however, considering the space, cost and easy of adjustment, it gives a very good account of itself.

Diagram of 4-band "Cliff-Dweller's" unit.



Basically, the antenna functions as an $1/8$ wave on 80, $1/4$ wave on 40, $1/2$ wave on 20 and $3/4$ wave on 15, being base loaded on all except 20 meters where it is voltage fed from the parallel resonant tank. The vertical radiator is made up of five six-foot length of $1/2$ diameter surplus whip. In the author's case, the whip is guyed with two sets of three guys each (light sash line, spring loaded at the lower ends to allow for shrinkage) at 12 and 24 foot levels.

The antenna can be used at ground level (if well clear of buildings, trees, etc.) or well off the ground, using ground plane wires as an effective ground.

In the author's installation, the tuning unit is 8 $1/2$ feet off the ground, at the same height as the aluminum patio roof. This roof, plus a heavy copper ribbon running to a good ground rod, makes up the ground system.

The cold end of the coil is truly cold on all bands. The switches, S1, S2, and S3 are actually heavy copper clips, although relays or knife switches could be used if available. The capacitor can be any variable type with a maximum capacity in the neighborhood of 100 pF. A National TMS- 100 would be suitable.

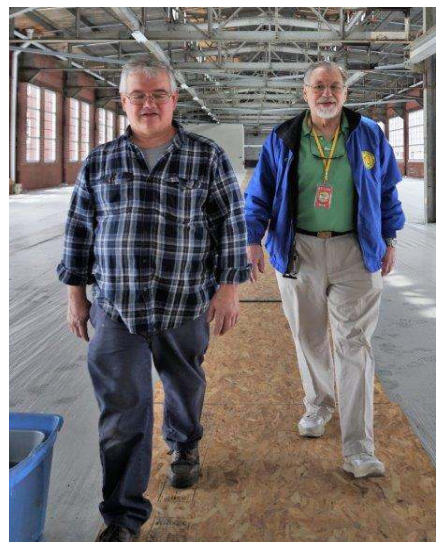
Adjustment of the tuning unit was extremely simple. A grid dipper should be used in determining the proper setting for the S1 tap, as well as getting the correct number of turns in the complete coil for resonance at 3.5 MHz.

The next step is to determinate the correct feed point for the coax. If a SWR bridge is available, it amounts to finding the point which gives the lowest SWR on the feedline. If no bridge is available, the feed point can be found by observing reflected reactance in the final amplifier tank. With correct tap points at the antenna, the PA tuning will be very nearly the same with or without the feedline coupled to the transmitter.

Results have been excellent, considering the size of the system. The transmitter was free from TVI and no change was noted when switching to this vertical radiator.

As an example of its possibilities, only Europe is needed for WAC on 3.5- MHz while running 450 watts input. It is hoped that this idea may be of some help to those amateurs living in so- called impossible locations.

NATIONAL MUSEUM OF INDUSTRIAL HISTORY



Here are some images from our visit to the National Museum of Industrial History from April 12th..There were students from Nazareth Area High School taking the tour and visited the radio exhibit. Steve, N2IYR, gave a talk about radio as Stephanie, WX3K, made some contacts on HF. Photos by Dave / N3EYT

The 2019 MARC Hamfest will be held on **Saturday July 13th** at the Kimberton Fire Company grounds, Route 113 (742 Pike Springs Road) south of the intersection with

QST
devoted entirely to
**amateur
radio**

June 1954
30 Cents
No. 6 (Special)

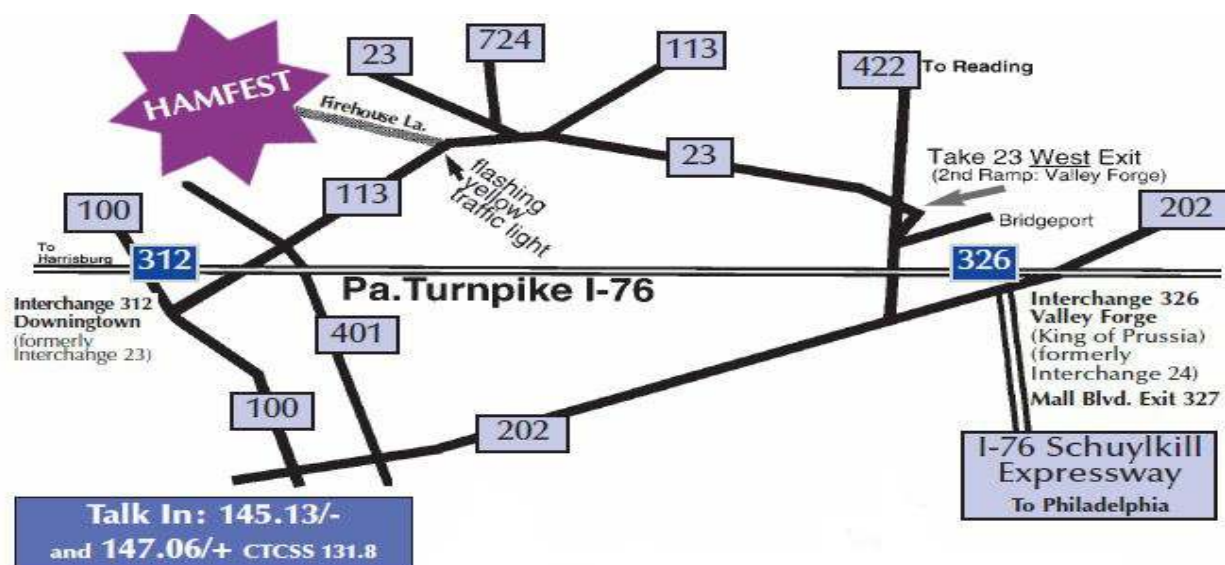
PROMOTING
COMMUNICATIONS
IN THE
VIETNAM
WARZONE

Food and beverage sales are provided by authorized vendors only.
Unlicensed children and spouse with a licensed Ham admission are free.



This is a great day in the country Come to the MARC Hamfest in the morning and spend a leisurely afternoon

in nearby Valley Forge National Historic Park.



AMATEUR RADIO IN SPACE PIONEERE ASTRONAUT OWEN GARRIOTT , W5LFL (SK)

The US astronaut who pioneered the use of Amateur Radio to make contacts from space - Owen K. Garriott, W5LFL – died April 15 at his home in Huntsville, Alabama. He was 88. Garriott's ham radio activity ushered in the formal establishment of Amateur Radio in space, first as SAREX - the Shuttle Amateur Radio Experiment, and later as ARISS - Amateur Radio on the International Space Station.

"Owen Garriott was a good friend and an incredible astronaut," fellow astronaut Buzz Aldrin tweeted. "I have a great sadness as I learn of his passing today. Godspeed Owen."

An Oklahoma native, Garriott - an electrical engineer - spent 2 months aboard the Skylab space station in 1973 and 10 days aboard Spacelab-1 during a 1983 Space Shuttle Columbia mission. It was during the latter mission that Garriott thrilled radio amateurs

around the world by making the first contacts from space. Thousands of hams listened on 2-meter FM, hoping to hear him or to make a contact. Garriott ended up working stations around the globe, among them such notables as the late King Hussein, JY1, of Jordan, and the late US Senator Barry Goldwater, K7UGA. He also made the first CW contact from space. Garriott called hamming from space "a pleasant pastime."

"I managed to do it in my off-duty hours, and it was a pleasure to get involved in it and to talk with people who are as interested in space as the 100,000 hams on the ground seemed to be," he said in an interview published in the February 1984 edition of QST. "So, it was just a pleasant experience, the hamming in particular, all the way around."

Although Garriott had planned to operate on ham radio during his 10 days in space, no special provisions were made on board the spacecraft in terms of equipment - unlike the situation today on the International Space Station. Garriott simply used a hand-held

transceiver with its antenna in the window of Spacelab-1. His first pass was down the US West Coast.

"As I approached the US, I began to hear stations that were trying to reach me," he told QST. "On my very first CQ, there were plenty of stations responding." His first contact was with Lance Collister, WA1JXN, in Montana.

ARISS ARRL Representative Rosalie White, K1STO, met Garriott when he attended Hamvention, "both times, sitting next to him at Hamvention dinner banquets," she recounted. "Once when he was a Special Achievement Award winner, and once with him and [his son] Richard when Richard won the 2009 Special Achievement Award. Owen was unassuming, very smart, kind, and up to date on the latest technology." Garriott shared a Hamvention Special Achievement Award in 2002 with fellow Amateur Radio astronaut Tony England, W0ORE.

Richard Garriott, W5KWQ, was a private space traveler to the ISS, flown there by the Russian Federal Space Agency, and he also carried ham radio into space.

REFLECTIONS FROM THE PAST



BEAM ANTENNA GOING UP – Field Day 2011

F.Y.I.

The June Program will be "Dangers of Lyme Disease" -- **Cathy Gumlock**

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

President – Stephanie Koles / WX3K	-----	president@dlarc.org
Vice President – Bill Connelly / W3MJ	-----	vicepresident@dlarc.org
Secretary – JoAnn Schaffer / ND3JJ	-----	secretary@dlarc.org
Treasurer – Mike Gower / KB3LOD	-----	treasurer@dlarc.org

BOARD of DIRECTORS

Gabe Lantos / KZ2A	-----	gpl-3639@gmail.com
Dean Guth / AB3BD	-----	babydean1@hotmail.com
Les Morrow / W3LES	-----	lesterf52@gmail.com
Steve Harper / W3NAM	-----	sharper3152@gmail.com
John Barbaz / NT3P	-----	nt3p@arrl.net
Skip Paulsen / W1PV	-----	flathead@rcn.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 7:30 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

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**14 Gracedale Avenue
Nazareth, Pa. 18064-9211**

THE NEWSLETTER STAFF

Editor – Don Holmes / KC3II	-----	editor@dlarc.org
Web Master – Rich Hurd / WC3T	-----	rich@wc3t.us
Circulation – Paul Morrison / N3YNT	-----	n3ynt@aol.com
Photographer – Dave Blankenship / N3EYT	-----	n3eyt@arrl.net