

DELAWARE LEHIGH AMATEUR RADIO CLUB Inc.
OCTOBER 2015



W3OK

CORRAL

**Club Meeting October 1st, 7:30PM At the
Bethlehem Township Community Center**



Bill / W0RSJ
“VHF Operations and Grid Squares”

OCTOBER MEETING PROGRAM
Elections & Annual Awards Presentations
Charlie / W3OPA



MINUTES FROM THE SEPTEMBER MEETING

A general membership meeting of the Delaware-Lehigh Amateur Radio Club Inc. (the Club) was held on September 3, 2015, at the Bethlehem Township Community Center located in Bethlehem Township, Pennsylvania.

Call to Order: Jay / N3OW President, called the meeting to order at 1932 hrs.

Pledge of Allegiance: Led by Jay / N3OW

Member Happenings: Al / W3CE related that while camping he used a micro OFC 40m dipole by Hy Power Antenna Co. (KU3X) and it performed perfectly, is easy to roll up and carried in a back pack. Bill / W3MJ said that he worked St. Helena Island from his truck using a Hustler vertical antenna. Jay / N3OW said that *Nuts And Bolts* magazine now has a column devoted to amateur radio. Bob / NE2C said that he bought a truck from Ed / AA3OU. (The assembly's laughter cannot be adequately transcribed.)

Approval of the Minutes: Larry / AB3TY asked if there were any additions or corrections to the minutes as they appeared in the last newsletter. Jay / N3OW asked for a motion to approve the minutes of the last meeting.

Motion: It was moved by Bill / W3MJ, second by Mark / W2MB. **Motion carried.**

Treasurer's Report: Mike / KB3LOD presented the Treasurer's Report for July. Jay / N3OW asked for a motion to accept the report as read.

Motion: It was moved by Skip / KD2BDA, second by George / N3SQD. **Motion carried.**

Guests: Jim Fox who will be attending the tech class; Tim Lyons / N2PPK who passed his tech exam and will be attending the general class; and Bob Fray / KC3FIK who is a new general.

Membership Report: George / N3SQD announced the following member Bob Fray / KC3FIK. Jay / N3OW asked for a motion to accept the new member

Motion: It was moved by Pete / KC3EVL, second by Dave / KA3IWC. he vote was unanimous for approval. **Motion carried.**

Education Classes: Bob / KE3AW reported that Tech and General will commence on September 8. There will be 11 in the tech class and 10 in the general. Anyone interested in either can still participate. Study books for both classes are available at the discount price of \$24. In addition, the Emmaus Halloween parade will be on October 17. A sign up sheet for volunteers to provide parade communications was circulated. Bob also said that he was contacted by the Cub Scout troop in Hellertown concerning an event being held on October 17 where the Club could place a demo station for Morse code. A sheet was circulated for members expressing interest in attending. Al / W3CE added that there was a need for additional instructors for the education classes.

Club Badges: Dave / N3EYT said there was a signup sheet for any member in good standing needing one. Members who requested them at the previous meeting picked up their badges.

Club Repeater: No issues were reported.

Website: No issues were reported.

Club Station: Dave / NB3R reported the station was working with no problems. In addition he said that he was available to help setup N1MM for the CQ Worldwide SSB contest if anyone was in need. Ray / W3DTF said that the VHF ARRL contest would be 9-12 to 9-14.

Club Picnic: Jay / N3OW said the picnic was a success and thanked all that cooked and those that brought dishes and desserts. Ed / AA3OU also thanked those that participated and noted that while the event has been scheduled to begin at 12:00 pm, the majority of those attending do not arrive until 1:00, that there were 35 members at the peak of attendance which was around 2:30. Ed suggested that next year the event start time should be moved back to 1:00.

Odds and Ends: Bill / K3ANS noted that the August *CQ Magazine* had a feature article about Ray / W3TDF and questioned why it had not been mentioned at the Club. Various members said that Ray was honored at the August general meeting. Bill / K3ANS also noted that Ray / W3TDF also had an accomplishment with moon bounce. Jay / N3OW pointed out that Ray's moon bounce kudos also were noted at the August meeting. A round of applause was given to Ray. Ray / W3TDF noted that *CQ Magazine* had an 4 1/2 page article about his call being used by 10 counties in the PA QSO Party. Pete / NL7XM reviewed the basis for the article and pointed out that it was a 5 page spread. Larry / AB3TY noted Pete's posting on QRZ to which Pete expanded on a QCWA award to Charlie / W2RP who is 105 years old and has been licensed for 90 years.

Election Nominating Committee: Jon / NT3P announced that the slate of nominees had been completed as follows: Bill Connelly / W3MJ – President; Steve Harper / KB3WYJ – Vice President; Larry Kaplan / AB3TY – Secretary; Mike Gower / KB3LOD – Treasurer; Gab Lantos / KZ2A – Director; Skip Leslie / KD2BDA – Director; Dave Mellman / KA3IWC – Director; Bob Oppen / NE2C – Director; and Evelyn Uhler / W3DOY – Director. Jay / N3OW opened the floor for nominations and none were made. Jay / N3OW asked for a motion to close the nominations.

Motion: It was moved by Ray / W3DTF, second by Mark / W2MB. **Motion carried.**

Club Trip: Doreen / K3PDL announced that the date had changed to September 27 for the trip to Old Rhinebeck Aerodrome, Rhinebeck NY. Carpooling will be from the Easton Park and Ride at 7:30 that morning. Also, Doreen said that there are 2 presentations on the calendar for 2016, February and March. Others are needed and suggestions are welcomed.

Wheelmen's Century Bicycle Ride: Al / W3CE thanked all who signed up to work the event and thanked Doreen / K3PDL for changing the date for the Rhinebeck trip as it conflicted with the Wheelmen's ride.

QSO Corner: Pete / NL7XM passed around a QSO card from a Bethlehem station postmarked July 1923.

Adjournment: There being no further business before the Club, Jay / N3OW adjourned the meeting at 2006 hrs.

Respectfully submitted by Larry / AB3TY, Secretary

OCTOBER QUICK CHECK CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 DL ARC MEETING 7:30 PM	2 NO VE SESSION	3
4	5	6 Classes	7 DLARC Net (NB3R)	8	9	10 PA QSO Party
11 PA QSO Party	12	13 Classes	14 DLARC Net (W3CE)	15	16	17 Emmaus Halloween Parade
18	19	20 Classes	21 DLARC Net (KC3II)	22 DLARC BOARD MEETING	23	24
25	26	27 Classes	28 DLARC Net (N3SQD)	29	30	31

OCTOBER CONTESTING AT THE OK CORRAL



October 3 7 4 – 15 Mtr SSTV Dash Contest
 – Oceania DX Contest SSB
 October 10 & 11 - Pennsylvania QSO Party
 - Oceania DX Contest – CW
 October 17 & 18 – JARTS WW RTTY Contest
 – Worked All Germany Contest
 October 24 & 35 – CQ World Wide DX Contest - SSB
 October 31 & Nov.1 – ARRL EME Contest
 – Russian WW Multimode



VE TEST SESSION

There will not be a test session this month. The next test session will be November 6th at 7 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 MEMBER

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 Bob Fray / KC3FIK.

EMMAUS HALLOWEEN PARADE - 2015

An annual enjoyable and very helpful public service event, the Emmaus Halloween Parade is scheduled for the evening of Saturday, October 17 (Rain date Sunday, October 18). 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 2-meter 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.

de Bob / KE3AW

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

Thirty tubes: He would have to account for all the possible 12AX7s and 12AT7s (Totaling 28) before he could be sure that the other two would have to be 12AU7s.



Winner – John / NT3P

OCTOBER BRAINTEASER

All months of the year which happen to begin on Sunday also share another day/date characteristic; What is it?

ELECTION SLATE FOR 2015 / 2016

President – William Connelly / W3MJ
Vice President – Steven Harper / KB3WYJ
Secretary – Lawrence Kaplan / AB3TY
Treasure – Michael Gower / KB3LOD

Board of Directors
Gabriel Lantos / KZ2A
Malcolm Leslie / KD2BDA
Robert Oppen / NE2C
Evelyn Uhler / W3DOY
David Mellman / KA3IWC

The tenth position on the Executive Committee, according to the DLARC By-Laws is "***the most recent past president***", so **Jay Mason / N3OW**, will be the tenth member on this year's Executive Committee.

This year, since there is only one candidate each for all the positions. According to the DLARC By-laws, "*the Secretary shall cast the necessary vote*" for those positions, and no vote is needed by you.

Thanks to this year's Election Committee, John / NT3P, Dave / N3EYT, W2MB and Larry / AB3TY for putting together this slate

PENNSYLVANIA QSO PARTY 2015

October 10th and 11th are the dates for the 2015 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.

PROGRAMS NEEDED FOR THE 2016 MEETINGS

Time is short - time to put on your thinking caps on, work with a buddy. I have only two scheduled presentations for next year February and March. E-mail me with ideas. No program for October (Awards) and December (Annual Holiday Party).

73,

Doreen / K3PDL Presentation Chair

ANTENNA ISLAND

by John Doty

Sharbot Lake, Ontario, Canada lies a couple of kilometers south of the Trans-Canada Highway, about at the halfway point between Montreal and Toronto. It is perhaps 60 kilometers north of Kingston, which is at the northeast end of Lake Ontario. My grandfather bought a small island in Sharbot Lake in 1948, and I've traveled there regularly since I was 9 months old.

The island is about 150 meters long, but only about 25 meters wide. The long direction lies roughly northeast/southwest direction. There is a cottage near the northeast end. On official maps, the island is known as "Bradley's Island", but on some locally made maps it's known as "Rupert's Island" (Mr. Rupert was my grandfather). It's at 44 deg 46' north, 76 deg 42' west.

The island is wonderfully quiet in the radio spectrum. Our hydro (that's Canadian for AC power, eh?) and telephone connections are via underwater cables: this effectively blocks the noise that normally rides utility cables. There are no nearby cities or powerful radio transmitters. Ignition noise from passing motorboats is an occasional annoyance, but it's not a serious problem.

Even family members who are not radio hobbyists have for many years enjoyed "Medium Wave DXing": it's what you end up doing if you turn on an ordinary AM radio at night on the island. I've often brought my Sony 2001 up there for shortwave DXing. However, before this summer I had never brought a real communications receiver or the makings of a serious antenna system to the island.

This year I brought my Drake R8 and a bunch of antenna wire with me. Initially, I set up two antennas. Antenna #1 was about 120 meters of insulated wire, running nearly the length of the island, at a bearing of about 230 degrees. It was supported by trees at a height of 3-4 meters above the lake, 1-3 meters above the ground. 22 meters of bare copper wire submerged in the lake provided a ground, and an ICE Model 180 matching transformer coupled the antenna through 15 meters of cheap 75 ohm coax to the R8's input #1. Antenna #2 was about 8 meters of wire suspended almost vertically from a tree overhanging the cottage, connected directly to the R8's high impedance input #2. The ground for this antenna was provided by the grounded shield of antenna #1's coax: this arrangement is not good at rejecting noise from the power line, but with very clean power and few noise generating appliances it was usually acceptable (especially as I could always switch to #1). Antenna #1 was intended to be a nonterminated (bidirectional) Beverage, while #2 was intended to be omnidirectional.

The following analysis assumes that #2 *was* omnidirectional. Tests of the Beverage on shortwave were disappointing: while reception of many stations was excellent, there was very little difference in reception between the Beverage and the vertical. The orientation of the Beverage was such that I expected New Zealand to be in the forward lobe, and Europe to be in the back lobe. S-meter measurements in the 49 meter band revealed little difference between signal strength of RNZI, the Europeans, and other relatively distant stations on the vertical and on the Beverage, while relatively nearby stations such as WSHB and WWCR were substantially stronger on the Beverage. This implies that the Beverage had a strong preference for high angle radiation: this is not the way a Beverage is supposed to behave.

On the other hand, the Beverage showed substantial directivity on medium wave. Furthermore, the directivity was off the ends of the antenna, as it was supposed to be, preferring stations to the northeast and southwest over stations to the southeast (I didn't ID anything to the northwest: there's not a whole lot of civilization in that direction). This was rather surprising, since the Beverage was less than 1/2 wavelength long over most of the standard AM broadcast band! The Beverage was more efficient than the small vertical at MW also, so even signals off to the side were stronger on the Beverage. The front/side ratio was about 10 dB, which was enough to make a significant difference in many cases. For example, in the daytime the dominant station at 900 kHz on the Beverage was CHML in Hamilton, Ontario to the southwest, while on the vertical it was a station I never positively ID'd, but whose community service announcements referred to communities in northern New York, to the southeast. At night 1370 kHz was generally a confused mutter on the vertical, but the Beverage could usually pluck WXXI in Rochester, New York (more south than west, but still in the beam) out of the mess.

Despite the Beverage's directionality, the most distant medium wave station I heard was best on the vertical: Radio ZIZ, St. Kitts on 555 kHz. A directional antenna only helps if it's pointed in the right direction!

Another surprise was long wave. I'd never really heard any long wave broadcasters before. From my home in Bedford, Massachusetts I can occasionally hear a word or two in between noise bursts and beacons, but never anything listenable. However, from the island I found that I could often hear European long wave broadcasters at night: I hadn't realized that they could be heard so far from the ocean. Here's my log from around 0300 UT on August 11:

Freq SINPO ID 252 22252 Clarkestown, Ireland

234 22252 Junglinster, Luxembourg

216 33353 Roumoules, France

183 24353 Saarlouis, Germany

162 22352 Allouis, France

All of the above were in French except for Atlantic 252 in English.

The Beverage didn't seem to be especially directional down there. I didn't really check it carefully, though: beacons aren't my thing, and the broadcasters were all in about the same direction. The vertical was just too short to adequately feed a 500 ohm input below 200 kHz, so the Beverage was the better antenna down there. The stations above 200 kHz sounded about the same on both antennas, although the signal from the Beverage was, of course, much stronger on the S-meter. The unusually poor directivity of the Beverage at shortwave, and its unusually good directivity on medium wave puzzled me. I guessed that the island itself must have something to do with this phenomenon. The ground under a Beverage is an important component of the antenna: could the island be acting differently from a more uniform surface? If the island was perturbing the behavior of the Beverage, could it be acting as an antenna all by itself? I realized then that there was a way to turn the island and the surrounding water into an antenna. A "slot" antenna is just a slot (usually 1/2 wavelength long) in a

conductive sheet. The island could act as a slot in the conductive lake water! A slot antenna is usually fed by connecting a transmission line between the sides of the slot at its center. I didn't have enough coax to reach the center of the island, so I just fed it where I'd already put my "ground" connection into the lake, about 25 meters from the northeast end. I disconnected the Beverage, and ran an insulated wire about 15 meters long to the other side of the island. Having no additional uninsulated wire, I used a metal bait bucket as my contact in the water. I connected the feed wire to my matching transformer.

It worked pretty well! The signals from the slot antenna were weaker than those from the Beverage, but below 10 MHz the signal to noise ratio was generally about the same. The slot was a poor performer above 10 MHz. It did not seem to be very directional on shortwave. On medium wave, the slot was noticeably directional, but in a rather different way from the Beverage. At the low end of the standard broadcast band, it seemed to have a "cardioid" pattern, with good response in every direction except northeast. The front to back ratio was about 10 dB. At the high end, the pattern was more like that of a dipole oriented like the island, with good response broadside, and poor response off the ends. CJCL 1430 in Toronto was especially weak, more than 15 dB down relative to stations off to the side (always using the vertical as a reference). Long wave was also good on the slot. I added Nador, Morocco at 171 kHz to my list of stations logged down there.

Although my antenna experiments were a bit of a bust at shortwave (nothing beat the simple vertical, no matter where the signal was coming from), shortwave reception was nevertheless very good at this quiet site. My home site in Bedford is also pretty quiet at shortwave, however, so there were few surprises in what I was able to hear. One exception was the main transmitter site of Radio Japan at Yamata. Asian stations are generally weak and unpredictable in eastern North America, but Yamata seems to be particularly bad in New England. Why this should be I don't know, but I've never positively ID'd it from the Boston area, despite trying for several years from two sites with several different antennas. However, from the island I could hear Yamata on 9535 kHz! For example, at 1720 on August 10, I had it at S4, SINPO 25332 on the vertical. Not a breathtakingly good signal, but *much* better than I'm used to!

I also believe I heard Papua New Guinea on 3220 one night, but I made the log entry on a piece of scrap paper in the dark (to avoid waking my wife), and I can't read the time or date now. It sounded a lot like Steve Byan's recordings. If you think the R8's ergonomics are bad normally, you should try operating it in the dark!

Analysis:

I think the reason that the Beverage lacked directionality at shortwave was that it wasn't arranged symmetrically with respect to the island. I tried to keep the antenna straight. However, the island, although it is long and narrow, is not perfectly straight, so the antenna was not centered on the island. The return current through the ground plays an important role in the function of a Beverage, and the unsymmetrical placement of the wire relative to the more conductive lake water undoubtedly severely distorted the current pattern in the ground. Next time I may try running the antenna as close to the island's centerline as possible: it won't be quite straight, but it just might work better.

The use of an island as a slot antenna turns out not to be a new idea: I found a paper on it in a library at MIT. There was both theoretical and experimental work on the use of large islands as VLF antennas published around 1960. The paper I found (by Harold Staras of Technion and RCA Laboratories) analyzed large islands in seawater, and concluded that they would make poor VLF antennas. His analysis makes sense, but he used some approximations that are only valid for large islands (kilometers in length) in seawater (much more conductive than fresh) at VLF, so his conclusion does not apply to my case.

For a smaller island in fresh water at LF/MF/HF the theory is much more complex since Staras's approximations don't apply (even with his approximations, the math in his paper was quite heavy). I have no conclusions to offer, except that this is an interesting area for experiment. The theory looks too complex to be a useful guide.

SEPTEMBER MEETING PROGRAM VHF OPERATIONS AND GRID SQUARES

Bill / W0RSJ presented what was basically his history and interests in ham radio. From this first station in Norristown Pennsylvania, to Dodge City, Kansas to Easton, Pennsylvania.

Bill with slides presented a visual history of his radio career. Beginning with how he got into his UHF/VHF career as a novice in 1963 working two meter AM, which was one of the areas a novice could work back then. This expanded into what he works today. The slides showed his station and antennas at various times in the years that Bill was operating.(1963-2015) he reported on his experiences in the various locations where he established stations.

He also reported on his ongoing contest with Ray / W3TDF, on could work the most grids. At this point who was ahead was a debatable point.

Bill explained the grid system and how it was being used in UHF/VHF. Which version came about in 1981 when John Morris /G4AND in a group of VHF managers got together and created the system. This locator system replaced the old QRA locator system with one that was usable outside Europe. The Maidenhead grid squares divide the globe into 324 large areas of 10 degrees of latitude by 20 degrees of longitude and are called fields. Each field is divided into 100 squares. This is where the name grid squares come from. Each of these 100 squares represent 1 degree by 2 degrees. The two letters that follow a grid square further define your location within that square by dividing each square into a sub-square. These sub-squares are 5 minutes by 2.5 minutes.

Bill expressed how he hoped this presentation and his past presentations would increase interest in VHF/ UHF operating.

ARRL "CLARITY ON AMATEUR RADIO PARITY"

Statement Separates Fact from Fiction

The ARRL has taken steps to address objections and concerns recently raised by representatives of community associations about the Amateur Radio Parity Act of 2015. A statement released on August 28, "Clarity on Amateur Radio Parity" makes it clear that the bill would *not* create new federal policy with respect to outdoor amateur antennas. As it points out, the FCC already recognizes a strong federal interest in effective Amateur Radio communication from residences and has adopted a limited preemption of state and local regulation of Amateur Radio antennas. The Amateur Radio Parity Act of 2015 would extend the limited preemption to private land-use restrictions.

"Congress and the FCC already have acted to prohibit restrictions that prevent the installation of direct-to-home satellite dishes, TV antennas, and customer-end wireless broadband antennas," the statement said.

The legislation also does *not* prohibit community associations from reviewing proposed ham radio antenna installations or from having final approval; it limits restrictions to those necessary to accomplish an association's legitimate purposes -- such as safety and aesthetics. The bill does *not* mandate that a particular size of antenna be permitted, as long as size and placement restrictions do not prohibit, but reasonably accommodate, Amateur Radio communication.

"Claims that the bill will do any of these things are simply wrong, and are either misunderstandings of the plain language of the bill or deliberate misrepresentations," the ARRL statement asserted.

As introduced in both the House and Senate, the bill recognizes that the federal interest in effective Amateur Radio communication remains the same, whether a residence is subject to state and local regulations, to private land-use restrictions, or both.



OPPONENTS' REPRESENTATIONS OF PARITY ACT'S "JUST NOT TRUE"

ARRL President Kay Craigie, N3KN, has taken strong exception to certain claims being made by community association organizations about the Amateur Radio Parity Act of 2015 -- H.R. 1301 and S. 1685. In an interview with *Ham Radio Now* host Gary Pearce, KN4AQ, during the ARRL Roanoke Division Convention in Shelby, North Carolina over Labor Day weekend, President Craigie stressed that passage of the legislation is critical to ensuring the future of Amateur Radio. And she described as "false" recent assertions that the bills' passage would prevent community associations from requiring prior approval for 70-foot ham radio towers and from creating reasonable processes and aesthetic guidelines.

"As bills go, it's pretty short, and it's in plain English," President Craigie said. "The legislation does not say that, it does not *mean* that. It's just not true!" She pointed to the League's recent [Clarity on Amateur Radio Parity](#) posting, which attempts to separate fact from fiction regarding the legislation. The "Clarity" document explains the bill and "addresses some of these statements that have no resemblance to anything that is factual in this or any other solar system," she said. "The *only* authority that [homeowners associations] would lose is the ability to say, 'No, go away,'" said President Craigie. HOAs, she explained, would at least have to negotiate "reasonable accommodation," which would depend on the circumstances existing in a given neighborhood.

She also said that the Parity Act does not represent any sort of federal government or FCC takeover or preemption of HOAs. "It does not take their authority to regulate away," she said. "It only takes away their authority to say 'no.' There's a big difference."

"The legislation does not even come close to what they are saying," agreed ARRL Roanoke Division Director Dr Jim Boehner, N2ZZ, who was interviewed with President Craigie at the Shelby Hamfest.

President Craigie said the proliferation of antenna-restricted communities could dramatically affect the ability of young newcomers to engage in and enjoy Amateur Radio. "A lot of people who are hams today got started as young folks, and it led them into careers; it led them into all kinds of interesting opportunities in their lives," she told Pearce. If a young person's parents buy into a deed-restricted neighborhood, however, any ham radio aspirations could be shut down, she said.

"We need to make sure that whatever community their parents decide to buy a house in, that [prospective newcomers] will be able to have some kind of a functioning antenna," President Craigie said. "Otherwise, our future has got a major crimp in it."

"The world will not come to an end if the HOAs actually have to sit down and communicate with the radio amateurs who live there," President Craigie concluded.

NEWSLETTER ARTICLES WANTED

Many DLARC members have discovered various insights to our hobby. Insights which would be of help and interest to other club members. A small article on these discoveries in the newsletter will inform other club members, and assist them to the benefits of your expertise.

An article on your favorite part of ham radio and how you go about enjoying it, for example, QRP CW operations, as chasing DX or building items for your shack. This is another way to share your interests with other club members and maybe to find another member with your interests.

This article need not be long nor high tech, but just a way to spread such information to other club members and possibly find someone else to share your enthusiasm. It could open a window for a new ham or even re-open an old window for the long-time ham. It would be a good way to share the wealth of knowledge within our club.

de Don / KC3II, Editor

MEXICAN XHKYUI TV-4 VIA SPORATIC-e

The summer Es season had ended on August 1. But ten days later I grabbed a 1,580 mile Es double-hop television station into southern Mexico. It was an analog channel 4 call sign XHKYU in Valladolid, Yucatan emitting low power at 4kW. I posted it onto YouTube:

- note: keep your volume turned down because the majority of the clip did not have sound. It comes up briefly (couple seconds) at spots - 1:00, 1:20, 1:26, 1:35.



[Mexican XHKYU TV-4 via Sporadic-e Storm](#)

[View on www.youtube.com](#)

Make sure you click on the "Show More" button for all the information. The station is also on digital UHF 23 (4.x) as of February 2015. The analog to digital switchover is scheduled to be completed nationwide on December 31, 2015.

Mike Schaffer / KA3JAW Easton, PA FN20jq GACTVDX

REDNERS' SUPERMARKETS SAVE-A-TAPE PROGRAM

Here's how it works:

Redner's has a terrific program to support the Club **AT NO COST TO THEM**, if our members simply sign up for a Gas Card that records their shopping points, and give their cash register receipts to, **Pete / NL7XM**, He'll do the rest.

Note: This does not affect your gas points in any way.

HELP THE ENVIRONMENT

Donate your old, empty printer ink cartridges to the Club for recycling. Any brand, model, size or shape; color or black. Please bring them to the meeting in a leak proof ziplock type baggie and give them to Pete / NL7XM. This simple act can help your Club by reducing recurring expenses, and make you feel a lot better about our environment.

ARRL SUPPORTS MAXIMUM FLEXIBILITY FOR AMATEUR USE OF 2200 AND 630 BANDS

The ARRL has told the FCC that Amateur Radio operation in the new 135.7-137.8 kHz (2200 meters) and 472-479 kHz (630 meters) bands should be as unfettered as possible from a regulatory stand point. The League spelled out its case August 31 in detailed comments that argue in favor of flexible FCC Part 97 regulations in light of the exceptionally low interference potential to unlicensed power line carrier (PLC) systems that utilities use to manage the power grid. In its April Report and Order, Order, and Notice of Proposed Rulemaking (R&O/NPRM) in ET Docket 15-99, the FCC had raised several questions regarding how Amateur Radio and PLC systems might coexist. The ARRL said, in its view, there is little to no evidence that Amateur Radio operation would be incompatible on the LF spectrum, where the great majority of PLC systems are deployed, and that few, if any, PLCs operate in the MF band.

"The allocation of the 2200 meter band, together with the proposal to adopt flexible rules for the use of that first LF allocation, and the proposal to allocate the 630 meter band for amateur use, when implemented, will complete at least a basic complement of Amateur Radio allocations in all portions of the radio spectrum domestically," the ARRL told the FCC. "It is readily apparent from the record...that there can most assuredly be compatible operation by amateur stations in both the 2200 and 630 meter bands without adverse interaction with PLCs."

The League asserted that "well-established notification procedures conducted entirely in the private sector" as well as the sharing of available database information should facilitate compatible operation. "Notification procedures will be necessary only in those predictably few instances in which geographic proximity and co-channel or overlapping channel operation occurs," the ARRL added.

The League requested that the FCC finalize service rules for 2200 meters that the ARRL outlined, and that it create the proposed 630 meter allocation. Operation on 2200 meters would be limited to 1 W EIRP, and operation on 630 meters held to 5 W EIRP, in both cases with an absolute EIRP transmitter output limit of 1500 W PEP and a 200 foot maximum antenna height. Assuming continued PLC compliance with Part 15 rules, the ARRL argued, "there is no significant interference

potential to PLC systems operated on an unlicensed basis in that very small segment of the 9-490 kHz band that is available for PLC operation, even at separation distances of less than 1 kilometer from the transmission line. At distances of 1 kilometer or more, there is no chance of interference to a PLC line whatsoever, and no restrictions on Amateur operation outside of that distance need be imposed."

The ARRL said PLCs that might be operating in the two bands should be frequency agile enough to relocate to frequencies falling outside the proposed allocations, making additional regulations unnecessary. The League has conducted a lengthy and ongoing experimental operation (WD2XSH) on 630 meters. It pointed out that it was "unaware of any reports of interference to PLC systems arising from that operation conducted pursuant to numerous Part 5 experimental licenses...in the large band utilized by PLCs."

The League agreed with the FCC's proposal to make both 2200 and 630 meters available to Amateur Extra, Advanced, and General licensees. The ARRL also said the FCC should provide "maximum flexibility with emission types" emissions throughout the 630 and 2200 meters, including CW, RTTY, data, and even phone and image, the last "especially at 630 meters."

The ARRL also commented on the FCC's proposal to amend its Part 80 rules to permanently authorize radio buoy operations on the "open sea" under a ship station license in the 1900-2000 kHz band, which the Commission recently elevated to primary for Amateur Radio. The League said there is "no evidence of compatibility" between Amateur Radio operation in the band and the "heretofore illegal" ocean buoy operations there.

"Should the Commission proceed with its proposal...to make the 1900-2000 kHz band available to commercial fishing vessels for use by radio buoys on the open sea and to include them in the equipment authorized as part of a ship station license, it should not do so by means of a primary allocation for these devices in ITU Regions 2 and 3 as proposed," the League said. "The entitlement to utilize radio buoys should be on a secondary basis to the Amateur Service (and other radio services operating in the 1900-2000 kHz band), and the buoys should be prohibited from causing harmful interference to Amateur stations without qualification."

In a footnote, the ARRL said, "The record is silent heretofore as to the need to use radio buoys in this frequency range. There is no information as to the necessary path distances for these devices and why a band with very long distance propagation is necessary for these buoys rather than VHF or some other suitable alternative."

UNDERGRAD RADIO AMATEUR USES REVERSE BEACON NETWORK IN RESEARCH PROJECT

A Virginia Tech undergraduate researcher and radio amateur has used Super Dual Auroral Radar Network and Reverse Beacon Network data to study how solar flares impact HF radio propagation over the entire dayside -- the time Earth is in sunlight -- with communication loss related to both flare intensity and distribution. Carson Squibb, KM4MBQ, recently summarized his findings in a poster presentation, "Dayside Ionospheric Response to X-Class Solar Flare Events Observed with Reverse Beacon Network High Frequency Communication Links." As most HF operators understand, higher-intensity flare events can cause complete signal loss on HF, while weaker flares may only partly inhibit radio propagation.

According to Squibb's poster, a solar flare is an event in which the Sun emits high levels of ultraviolet and X-ray radiation, resulting in increased photoionization in the ionosphere, primarily in the D-layer, which is largely responsible for absorption of HF radio waves. So, as ionization increases during flare events, communication can be diminished or lost completely. Such fadeouts can occur in minutes, while subsequent recovery can take hours, "which is why understanding these flare effects is of critical importance," Squibb said.

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Squibb said future research should focus on quantifying the relationship between flare characteristics and HF signal fadeout. Squibb conducted his research under the guidance of graduate student Nathaniel Frissell, W2NAF, and SuperDARN group supervisors Jo Baker and Mike Ruohoniemi, as part of his participation in the Research Experiences for Undergraduates program sponsored by the National Science Foundation and hosted by the Center for Space Science and Engineering Research. His co-authors included Magda Moses, KM4EGE, of Virginia Tech, and Robyn Fiori of the Canadian Space Weather Forecast Center.

RACES EMERGENCY REQUIREMENTS

As of September 2006, NIMS IS-700 and ICS-100 course certifications are required in order to receive the county issued photo IDs. The photo IDs are required by federal law for participation in, on site RACES emergency operations. These courses can be taken on line by going to www.fema.gov and following the directions. These requirements are not needed to participate in the weekly Wednesday nets. The only requirement for these nets is a valid amateur radio license and an interest in emergency communications.

F.Y.I.

The November Program will be "History of the Radio Corporation of America" – Bob / AB3RC

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.

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 147.370 (DCS 315) W3OI Repeater.

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. Doogle 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.

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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)

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.

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