

DELAWARE LEHIGH AMATEUR RADIO CLUB Inc.
DECEMBER 2012



W3OK

CORRAL

Club Meeting December 6th 7:30PM
At the Bethlehem Area Vo-Tech School



SEASON'S GREETINGS



DECEMBER MEETING PROGRAM
ANNUAL CHRISTMAS PARTY

ATTENTION ATTENTION ATTENTION

NEW MEETING LOCATION

Effective with the January 3rd 2013 meeting, the DLARC will have a new meeting location. It will be at

The Bethlehem Township Community Center.

2900 Farmersville Rd. Bethlehem, Pa. 18020.

This is the location where we have met before when unable to use the scheduled location.

ATTENTION ATTENTION ATTENTION



FROM YOUR PRESIDENT'S SHACK
It's the Holiday Season!

While we enjoy time with family and friends I want to encourage everyone to be safe and act responsibly. The extra time you spend being extra safe can save you, your family and someone else's family from experiencing a tough time. I guess, don't just watch out for yourself but for those around you,

At least for the moment my job has put us back on our regular schedule and I was very happy to see you all at the re-scheduled November meeting. We had a very nice turn out for a meeting that was re-scheduled on such short notice.

There will be a report in here later from Al W3CE (Honorary Life Member) who brought together members of the club to assist with county for emergency communications during Hurricane Sandy. I want to congratulate him here and thank him for a job well done.

I am not sure of our overall participation level as a club in the PAQSO party this year but I would like to plant the seed now for someone take up the mantle and be a cheerleader / organizer next year to try and concentrate the club's efforts for a maximum score and possibly a state wide win! Wow, long sentence.

WX3MAS is upon us. Jon NJ3I is the chairperson and even though the operating will be fun Jon has made it sound like it will be a good place to congregate with club members to share in some good food as well. Jon really puts some effort into the event, come on out and support him. Thank him for his time when you see him as well.

Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due. Dues are due.


Speaking of dues... There will no longer be a break in the dues if you pay later in the year. The by-laws are going to under go some changes this year and the board needs you to be at meetings to help us move forward with some of these things. Currently the group overlooking this is Pete NL7XM (Honorary Life Member), Dave N3EYT, and Bryan AA3WM.

Look for your dues reminder card coming out. This is another exciting year for programs. Hey! This is just another exciting year coming up for the DLARC.

MAKE SURE YOU ARE A PART OF IT!!!

de Charlie / W3OPA

DECEMBER 2012 QUICK CHECK CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3	4 D-Star Mid – Atlantic 7:30 PM	5 DLARC RACES/ARES Net (N3SQD)	6 DLARC MEETING	7 NO VE SESSION	8 WXMAS XMAS CITY
9 WXMAS XMAS CITY	10	11 D-Star Mid – Atlantic 7:30 PM	12 DLARC RACES/ARES Net (KB3CTX)	13	14	14
16	17 News Letter Articles Due	18 D-Star Mid – Atlantic 7:30 PM	19 DLARC RACES/ARES Net (NB3R)	20	21	22
23	24	25 HO  HO	26 DLARC RACES/ARES Net KB3WYJ)	27	28	29
30	31					

DECEMBER CONTESTING AT THE OK CORRAL

- December 1 & 2 ARRL EME Contest
- December 8 & 9 ARRL 10 Meter Contest
- December 15 & 16 ARRL Rookie Round-up
- December 22 & 23 RAEM Contest
- December 29 & 30 -Stew Perry Top Band Challenge





MINUTES FROM THE NOVEMBER MEETING

The general membership meeting of the Delaware LehighAmateur Radio Club inc. was held on November 8th 2012 at the Bethlehem Area Vocational Technical School in Bethlehem Township.

Call to Order: Charlie Lazarchak / W3OPA, President, called the meeting to order at 1930 hrs.

Pledge of Allegiance: Led by Charlie / W3OPA

Opening Remarks: Charlie / W3OPA thanked the membership present for coming out to the meeting, which was rescheduled due to Hurricane Sandy.

Activities of Members: Charlie / W3OPA opened the floor to members who wished to share any recent personal ham radio related activities, projects, or events:

Doreen / K3PDL described a short video she watched on the internet in which two people outfitted in faraday suits "fought" each other using electricity from tesla coils. Also, Doreen announced she received an Amateur Radio License Plate with her call.

Bill / NC3P downloaded N1MM contest logging software. He just starting to explore its potential, but so far it works great. Also, Bill got a great deal on eBay for a data cable for his FT-897.

Jon / NJ3I reported he worked Holland on 17 meters with 100mW power into a dipole antenna.

Don / KC3II described how his 12-meter antenna came down in the storm. By having antenna supplies prepared beforehand, he was able to get it back up almost immediately with the assistance from a cable TV field crew making repairs in his neighborhood.

Charlie / W3OPA informally polled the membership to see how they had been affected by the storm. Most were without commercial power for at least 1 to 3 days, but a few were without commercial power for up to 6 days.

Approval of the Minutes: Charlie / W3OPA asked for a motion to the minutes of the September meeting. It was moved by Al / W3CE, second by Doreen / K3PDL to approve the minutes of the September meeting presented.
Motion carried.

Approval of the Treasurer's Report: Mike / KB3LOD presented the Treasurer's Report. It was moved by Don / KC3II, second by Jon / NJ3I to approve the Treasurer's Report presented. **Motion Carried.**

Club Station Report: Al / W3CE provided a report on the club station. He was able to make it to the club station on Wednesday. In the aftermath of the storm, the generator at the Greystone building powered the club station. Although the main radio room was powered, the multi-purpose room is not powered by the generator. Because of Hurricane Sandy, not much activity has taken place at the club station in the past couple of weeks.

Hurricane Sandy Report: Al / W3CE discussed the events starting from the initial contact by Nick Tylenda, Northampton County Emergency Management Director on Friday, October 26th, through initial scheduling and activation of the evacuation shelters and emergency command center Monday, October 29th, to resumption of normal operations. In addition providing communication support for the evacuation shelters and emergency command center, ham radio volunteers were stationed in the fire stations in Plainfield Township and Wind Gap with transportation to these locations provided by the National Guard. Ham radio volunteers provided more than 170 person-hours of labor during the storm and its aftermath. Al reported the County was appreciative of the service provided. Al thanked the following volunteers for their time and efforts during the activation:

Ben / KB3CTX, George / N3SQD, Gary / N2AUO, Steve / KB3WYJ, Dave / N3EYT, Dave / WD5BRP, Joe / AB3OS, Brian / KW3K, Blair / K3YD and Jon / NJ3I

Dues Reminder: Charlie / W3OPA reminded everyone 2013 Club Dues are approaching. Charlie / W3OPA also advised that a change to the by-laws may be coming up that would eliminate the mid-year reduction of membership dues.

Membership: George / N3SQD presented applications for membership for Robert James / AB3RC and Laura James / KB3ZKR. They both tested in the last VE test session with Robert passing the Technician, General and Amateur Extra tests in a single test session. It was moved by Doreen / K3PDL, second by Pete / NL7XM to accept the applicants. **Motion carried.**

License Classes/VE Test Session: Bob / KE3AW reported the instruction portion of the current class will end in the 9th session on November 13th. The 10th session on November 20th will be a VE session at the 911 Center for those in the class and for any others who would like to test. Next, Bob / KE3AW reported the classes would start again in March 2013.

Halloween Parade: Bob / KE3AW reported this year's Halloween parade was a great success. Thanks to a great volunteer turnout, the Club was able to fill all positions and even doubled up in some of the vehicles. As in previous years, there were no serious incidences, which Bob attributed in part to operator vehicles being interspersed throughout the parade. Next, Doreen / K3PDL shared her positive experience as a volunteer operator in the parade.

Evergreen Trees: Bob / KE3AW has two evergreen trees that need to be cut down. Each is 12' to 14' tall. He asked to be contacted by anyone who knows of a school, church, or similar organization that may be able to use the trees for a Christmas display.

- Pa QSO Party:** Charlie / W3OPA reminded everyone who operated in the Pa QSO Party that logs must be submitted by November 15th and that the full club name must be used for the Club to receive the credit for their log.
- Christmas City Special Event Station WX3MAS:** Jon / NJ3I provided an update. The Christmas City Special Event Station WX3MAS will be in operation at the Milk House on Saturday December 8th and Sunday December 9th from 9 am to 6 pm on both days. Saturday's featured dish will be turkey. Last year's event was a great success and everyone who operated or just stopped by had a good time. If you are interested in operating, you may contact Jon at cjfishing@rcn.com.
- Holiday Party:** Charlie / W3OPA discussed the upcoming holiday party, which will be on December 6th, immediately after the monthly meeting. Everyone is encouraged to bring a sweet or treat to share with everyone and enjoy the camaraderie. As it will be the Club's last meeting at Bethlehem Area Vocational-Technical School, Charlie requested everyone go the extra mile to help ensure the room is left as we found it at the start of the evening.
- New Meeting Location:** Charlie / W3OPA stated the Club's meeting location will be the Bethlehem Township Community Center starting with the January 2013 meeting. While this will be announced again in the Club newsletter and posted on the Club website, Charlie asked for everyone pass this information on to other members who were not able to attend this meeting.
- Black Bear Century:** Ben / KB3CTX reported this year's Black Bear Century was a success. There was one serious medical incident involving a rider, but the situation turned out ok by the end of the day. Fifteen volunteer operators participated and operators were stationed at each rest stop and in each sag wagon. Jon / NJ3I and Gary / N2AUO operated Net Control from Gary's RV. APRS mobile operations in the sag wagons allowed each sag wagon's position on the course to be displayed at Net Control. There is little to no cellular phone service in the area, the organizers were very impressed by the reliability of our radio communications and appreciative of the support our radio communications bring to their event. The organizers expressed their appreciation for the volunteers by donating \$306 (\$1 per rider) to the club.
- Lehigh Wheelmen Gap Gallup:** Al / W3CE reported on this year's 100-mile Gap Gallup on October 7th. Ten volunteer operators participated and were positioned at the rest stops, sag wagons and start/finish. Unfortunately, there were only 36 riders in the event; there was a large event at the Lehigh Velodrome that attracted many potential riders. The Wheelmen are considering scheduling next year's Gap Gallup in September.
- Runner's World Half Marathon:** Al / W3CE reported several ham radio volunteers were fielded for the *Runner's World* half marathon in Bethlehem. As reported last month, the magazine telephoned the milk house one evening asking for communications assistance for their event. Operators were positioned at first-aid stations, water stops and at other locations. Next, Al / W3CE described the large presence of City and County Public Safety personnel at the event and recommended that, in light of the overwhelming number of Public Safety personnel with communication capability, the Club should respectfully decline any subsequent future requests for this event.
- Member Involvement:** Charlie / W3OPA encouraged the members to take the time to read newsletter and minutes. The Club's business is presented and reported in these. Any errors, omissions, or needed clarifications should be brought to everyone's attention so they can be addressed.
- Field Trip Chairperson:** Doreen / K3PDL asked that anyone with ideas for field trips to contact her. She will be coordinating field trips with other planned Club activities and will be working with the newsletter editor to ensure information for upcoming field trip are publicized. Charlie / W3OPA added that the intent is to provide the members with as much notice as possible so more people will have an opportunity to participate.
- 2012 CQ WW DX Contest:** Bill / K3ANS asked about other member's participation in recent contests. Jeff / N3QO and, after succumbing to Bill's encouragement, Joe / K3NM and Wayne / W3EA described the conditions during the CQ WW DX SSB Contest. The consensus was conditions on 10 meters were outstanding and, while conditions on the low bands were not bad, there was not much activity on them as many were taking advantage of the excellent conditions on the high bands. Finally, Wayne encouraged everyone who could to participate in the CQ World Wide DX CW Contest on Thanksgiving weekend.
- Adjournment:** There being no further business before the Club, the meeting was adjourned by Charlie / W3OPA at 20:17 hrs. In the break between the meeting and the evening's presentation, the door prize was won by Bob / KE3AW and "What's in your pocket?" winners were Al / W3CE, Andy / WV1B, Paddy / AJ3B, Doreen / K3PDL, Don / KB3YGR, Charlie / W3OPA, Ed / N3MSK, Peter / K2PM, Vic / N2OFF and John / NT3P. The evening's presentation "Long Delayed Echoes" was presented by Al / W3CE.
- Respectfully submitted by John / NT3P, Secretary

VE TEST SESSION

There will not be a test session this month. The next session will be January 4th 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.

MEMBERSHIP DUES ARE DUE!

It's that time, already! DUES are payable for the calendar year 2013. Here's how easy it is to remit your club DUES and keep your valuable D.L.A.R.C. Membership current. Whether in person or by mail, **CHECKS made payable to the D.L.A.R.C.** are the preferred method of payment to more accurately record your timely renewal. Please ensure that your callsign appears somewhere on the instrument, such as in the memo field. Paying with cash is discouraged, but if you really, *really* have to, kindly make certain you are prepared with the correct sum according to the rate table shown below. Remember, if your DUES are not paid by February 1st, your membership will expire.

2013 DUES Rates / No Changes

Regular Membership 18-64 years of age:

Jan. - Dec.\$17.-

65 and over, or retired from all forms of employment (no age limit)

Jan. - Dec.\$12.-

Additional Family member
each \$3.-

Associate Individual Membership \$10.-

You are strongly encouraged to MAIL your DUES so that I may conduct the bulk of the record-keeping duties apart from where I believe you deserve the most of my attention. In person at Club Meetings, I'd prefer to answer your questions, address your concerns, and welcome your thoughtful revenue raising and savings ideas. Therefore, it is firmly advocated that DUES correspondence be mailed to:

**Michael J. Gower
1511 Shelbourne Drive
Bethlehem, Pa. 18018**

Enclosing a S.A.S.E will bring your new membership card back to you immediately if you can't attend the next Meeting where they are routinely distributed. You may write to me anytime with questions regarding DUES, or to discuss issues that you believe are my responsibility at: Treasurer@dlarc.org Include your phone number if you prefer a live reply.

de Mike / KB3LOD, DLARC Treasurer

HARD COPY SUBSCRIPTION

You must sign up if you want a hard copy newsletter subscription. The rate stays the same this year at \$10. This is exclusively for the newsletter only to cover printing and mailing. The price of maintaining a Bulk Mailing Permit is too expensive to justify with the size of our Membership, thus the first class postage requirement. This will squarely cover the cost of paper and printing supplies for 12 issues. To subscribe contact Pete / NL7XM at nl7xm@arrl.net

2012 EMMAUS HALLOWEEN PARADE: ANOTHER SUCCESS

We could not have asked for a more perfect evening for a Halloween Parade than the one we had on October 20th. Thousands of spectators thought the same and lined both sides of the 2 1/4 mile parade route. With that kind of turn-out, and for a parade so long that the front of the parade, on its return to the starting location, had to wait for the end of the parade start, one could have guessed some major problems would arise. But, perhaps due to our presence of ham in our 14 vehicles in the parade's procession, there were no major problems.

The Emmaus Halloween Parade Committee again expressed their gratitude for our work communicating between our parade locations and net control, who was beside the Parade Marshal. Unless I missed someone, we had a total of 23 hams participating in one manner or another.

Our thanks go to the hams in this year's parade, who were: MOVING IN THE PARADE: Dave Blankenship / N3EYT and Andrew Parker / WV1B, Glenn Brodt / N3ULW and Jill Brodt / N3ZSR, Joe Garvey / AB3OS and Chris Garvey / KB3WTM, Doreen Gramling / K3PDL and Evelyn Uhler / W3DOY, Bob Green / KE3AW, Steve Harper / KB3WYJ, MarkHoppes / N0VGA, Chris Kulp / KB3UNA, Jay Mason / N3OW, Doug McNair / N3WGH, Dave Mellman / KA3IWC, Mark Miller / AK3M and Larry Miller / NR3R, Lyle Myers / KB3SXI, Pete Varounis / NL7XM,
NET CONTROL: George / N3SQD

ON STAND-BY: Fran Odenheusen / KB3YTG, Ed Pitosky / AA3OU

PROVIDING A LOCATION FOR OUR CROSS-BAND REPEATER: Phil Swavelly / KB3PDM

Following the parade, it was nice to see the group at the "Meeting B" in the Superior Restaurant. From what I heard, everyone was satisfied with the choice for that social meeting..

I'm already looking forward to next year's parade, and seeing you there again, too. Happy Halloween!

de Bob / KE3AW

EMERGENCY OPERATIONS

On Monday October 29th ARES/RACS was activated in Northampton County to aid in communications. A call went out on the DLARC reflector and over the .70 repeater for hams willing to volunteer. The response was outstanding with eleven operators responding.

The following people operated at the Northampton county EOC, the Red Cross evacuation shelters, and county fire stations. Al Wiemann / W3CE, Ben Ramig / KB3CTX, George Wieland / N3SQD, Gary De Mave / N2AUO
Steve Harper / KB3WYJ, Dave Blankenship / N3EYT, Dave Foster / WD5BRP, Joe Garvey / AB3OS
Brian Klock / KW3K, Blair Bates / K3YD, Jon Matson / NJ3I

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These hams put in over 170 hours of volunteer service and their service is greatly appreciated by county officials. I was very happy to see the response our club gave and it showed we are ready to help in any emergency.
de AL Wiemann / W3CE

NOTICE – NOTICE

Due to changes in his work schedule, Dave / NB3R, is unable to continue as newsletter photographer. Any member interested in accepting this position, please contact, Don / KC3II at kc3ii@arrl.net

USPS SEEKS TO PHASE OUT IRCS

If the US Postal Service (USPS) gets its way, it will no longer sell International Reply Coupons (IRCs) after January 27, 2013. According to the October 23 edition of the *Federal Register*, there is not sufficient demand for the USPS to continue offering IRCS to customers; however, per the Universal Postal Union ((UPU) regulations, the USPS must continue to exchange and redeem IRCS that have been purchased in foreign countries and presented at USPS facilities. Comments on this proposed change will be accepted through November 23, 2012. IRCS provide foreign addressees with a prepaid means of responding to inquiries, solicitations or other types of communications -- such as QSL cards -- that are initiated by US senders. IRCS are exchangeable for postage stamps by postal administrations in member countries of the UPU. Each IRC is equivalent in value to the destination country's minimum postage price for an unregistered airmail letter. The purchase price in the US is currently \$2.20 per IRC.

U.S. POSTAL SERVICE ANNOUNCES NEW PRICES AND SERVICES FOR 2013

WASHINGTON — Beginning early next year, the Postal Service will introduce a First-Class Mail Global Forever Stamp. The new stamp will allow customers to mail letters anywhere in the world for one set price of \$1.10, and is among new mailing and shipping services filed with the Postal Regulatory Commission today.

The price for First-Class Mail single-piece letters will increase by just a penny when prices change in Jan. The new 46 cent Forever stamps will allow customers to mail letters to any location in the United States. Forever stamps are always good for mailing a one-ounce letter anytime in the future regardless of price changes. Highlights of the new single-piece First-Class

Mail pricing, effective Jan. 27, 2013 include:

- * Letters (1oz.) — 1-cent increase to 46 cents
- Letters additional ounces — unchanged at 20 cents
- Letters to all international destinations (1oz.) — \$1.10
- Postcards — 1-cent increase to 33 cents

The Postal Regulatory Commission (PRC) will review the prices before they become effective Jan. 27, 2013. Today's Shipping and Mailing price filings will be available on the PRC website at www.prc.gov and the new Mailing Service prices will also be available at <http://pe.usps.com>.

Shipping Services

Several new Shipping Services products will be available in January. Free tracking will be offered to all competitive packages, including retail Priority Mail and Parcel Post (recently renamed Standard Post).

Also new, customers shipping Critical Mail letters and flats will now have the option of receiving a signature upon delivery as part of the service offering.

A large variety of flat-rate boxes and envelopes for Express Mail and Priority Mail, including the padded and legal-sized flat rate envelopes will continue to be offered by the Postal Service.

New domestic retail pricing for Priority Mail Flat Rate products include:

- Small box — \$5.80
- Medium box — \$12.35
- Large box — \$16.85
- Large APO/FPO box — \$14.85
- Regular envelope — \$5.60
- Legal envelope — \$5.75
- Padded envelope — \$5.95

The Postal Service receives no tax dollars for operating expenses and relies on the sale of postage, products and services to fund its operations.

NEW MEMBERS

The DLARC is continuing to grow, so be sure to greet our new members, shake their hands, and give them a warm welcome to our club. The newest members are Robert James / AB3RC and Laura James / KB3ZKR.

THE AMY ZIMMERMAN AWARD

PURPOSE;

Ham Radio-related humanitarian act, deed or service that benefited the community. This award was originally conceived as a memorial to Amy Zimmerman for her service in the community and amateur radio.

- a. Qualifying act, deed or service should benefit those outside of amateur radio. (example: hams working with non-hams)
 - b. A single extraordinary act, deed or service could qualify. (working the 9/11 disaster)
 - c. Qualifications should not include normal everyday operating or contesting.
 - d. Qualifications should not include being an event chairperson of a single event every year.
1. An individual may receive the award more than once, but not for the same reoccurring act, deed or service. Multiple awards will be given for cooperative efforts by any members.
 - a. A description of the act, deed or service which qualified the individual or individuals for the award must be entered into the Executive Committee minutes
 - b. and the minutes of the general club meeting at which the award was presented.
 2. Only DLARC club members in good standing are eligible for the award. They must also have been members of the club at the time they performed the activities for which the award is being presented.
 3. The award is to be considered and reviewed each year, but may not necessarily be presented each year if there are no qualified candidates.
 - a. A three person committee is to be formed each December by the executive committee consisting of the past president and two club members at large.
 - b. The committee's function is to determine candidates who qualify for the award (either through suggestions from other club members and/or their own deliberations) and present them to the executive committee at the January executive committee meeting, as potential recipients. The executive committee may add or subtract from the committee's list of nominees the name of any qualified club whom they believe does not meet the eligibility requirements of the award.
 - c. The award winner will be decided by a majority vote of the executive committee.
The award consists of the following:
The Amy Zimmerman Plaque and a press release to the ARRL and local news agencies .

“AMY ZIMMERMAN AWARD”

Please fill out this form and nominate your choice for The Amy Zimmerman award. The award will be chosen from these nominations by the award committee. The award committee will present their recommendation to the Executive Committee for final approval. The award will be presented at the March general meeting. Return this form to any Executive Committee member.

I nominate _____

for the Amy Zimmerman award. Because: (Use additional pages if necessary)

2012 CQ WW DX CONTEST IN THE CLUB STATION



de Dave / NB3R

2012 BLACK BEAR BIKE RUN

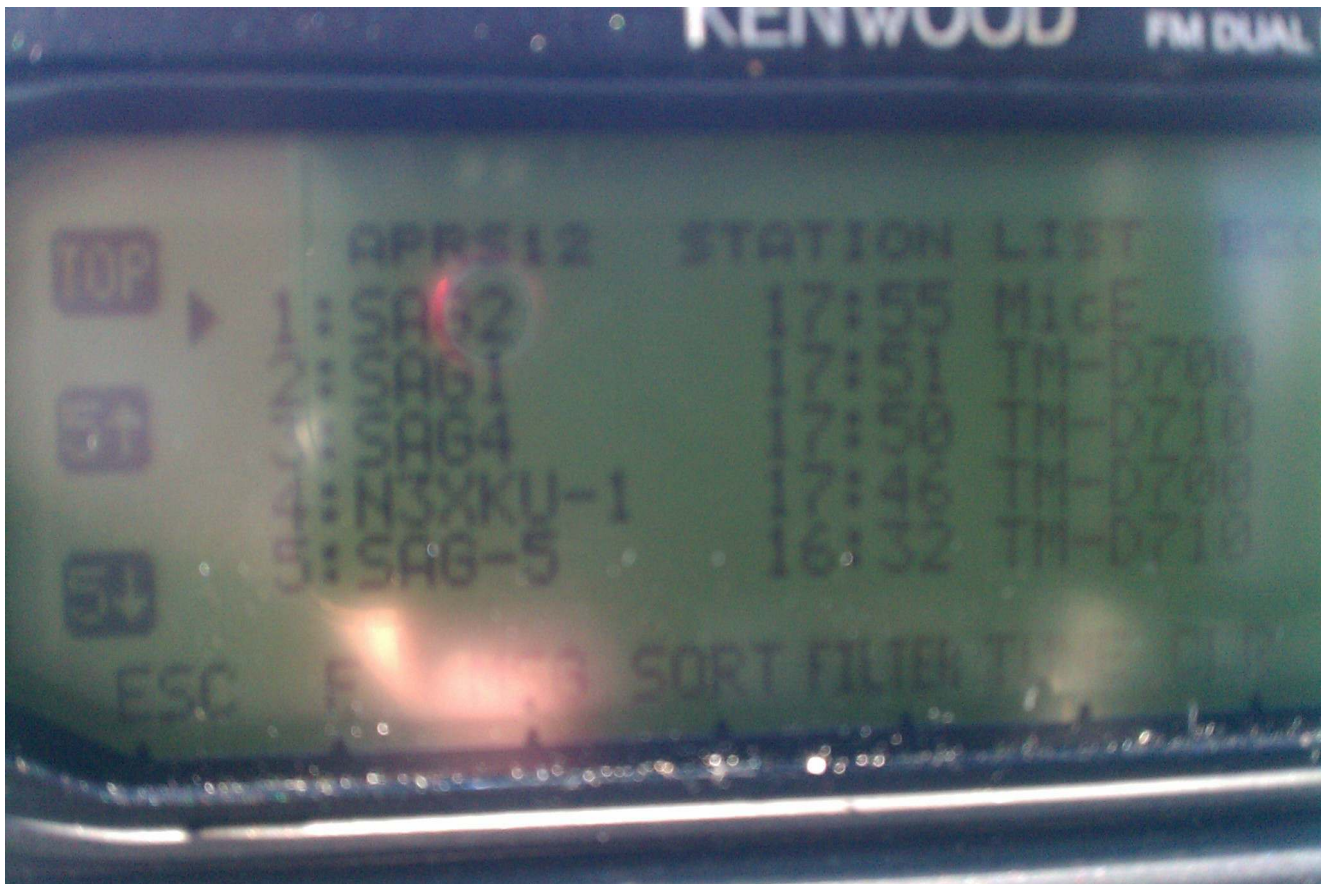
Ben / KB3CTX organized another successful Black bear Bike run. The club provided communications for the October 13th Black Bear Ride. The end points for the ride are Portland, PA, and High Point, NJ. Gary / N2AUO took his RV and he and Jon / NJ3I sent up the evening before and set up the control station and possible Pa QSO Party Station.



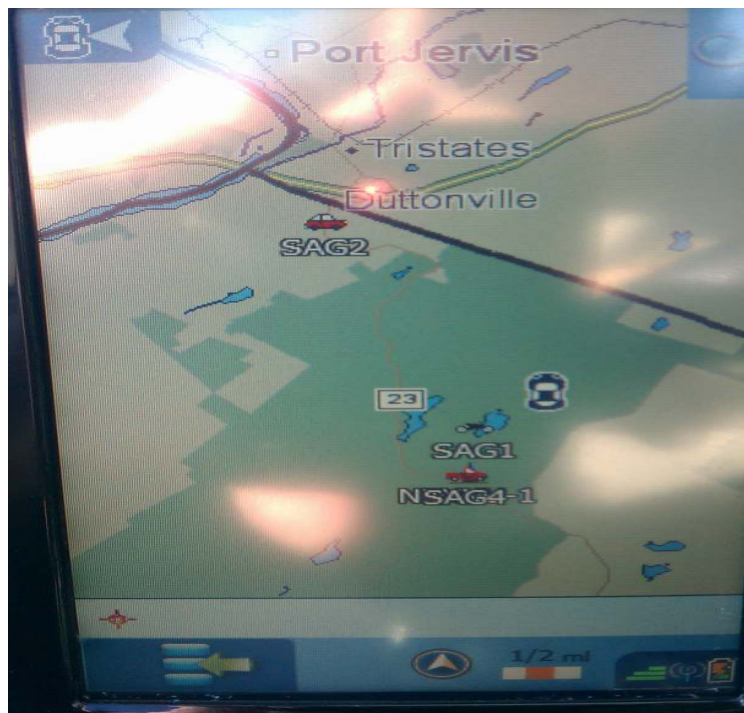
AI / W3CE setting up his Kenwood APRS HT and antenna to receive APRS data from Ben's position



2m Quad beam pointed to Ben at Camp Mohican.



APRS beacons NB3R received from the sag wagons. We set up our own digipeat network since not repeaters are available in the area.



AvMap GPS showing the position of the sag wagons in proximity to NB3R's car
Photos by Dave / NB3R

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.

IMPORTANT NOTICE

Please check the web page roster listing. It is important that your telephone number and email address are correct. This is the only way we can contact members. If you do not receive the newsletter in your email and are registered for the phone tree and do receive the notices by phone, your email address is incorrect on the roster, and the same for your telephone number.

NOVEMBER PROGRAM REPORT

These echoes were first observed in 1927 by civil engineer Jørgen Hals from his home near Oslo, Norway. Hals had repeatedly observed an unexpected second radio echo with a significant time delay after the primary radio echo ended. Long delayed echoes have been heard sporadically from the first observations in 1927 and up to our time.

Possible *natural* explanations in two groups: reflections in outer space, and reflections within the Earth's magnetosphere. Ducting in the Earth's magnetosphere and ionosphere at low HF frequencies (1-4 MHz). Signals may pass the ionosphere and then be ducted in the magnetosphere out to a distance of several earth radii over to the opposite hemisphere where they will be reflected on top of the ionosphere. The round-trip time varies with the geomagnetic latitude of the transmitter and is typically in the 140 - 300 ms range. The further North the station, the larger the delay. Due to the short delay, this cannot be considered to be a real long-delayed echo. For completeness it is still included here. Travel many times around the world. Signals can travel around the Earth seven times in one second. Such signals are also not uncommon. "Goodacre reports that he pointed his antenna towards the horizon and received his own 28 MHz signal delayed by up to about 9 seconds.... His measurement implies travel up to 65 rounds around the earth." Probably the upper frequency limit for such effects. The most popular current theory is that the radio signals are trapped between two ionized layers in the atmosphere and then are guided around the world many times over until they fall out of a gap in the bottom layer. (Ducting propagation between air layers in the lower atmosphere is a well-understood phenomenon. Mode conversion: Signals couple to plasma waves in the upper ionosphere. Investigated experimentally by Crawford et. al.; they recorded echoes with delays up to 40 seconds at 5-12 Mhz. Reflection from distant plasma clouds coming originally from the sun. Freyman did experiments at 9.9 MHz and detected several thousand echoes of delay up to 16 seconds at times when solar plasma probably entered the magnetosphere. Non-linearity in addition to mode conversion. Two transmitted signals combine to generate a difference frequency, which travels with a plasma wave, then is converted back. Could explain amateur UHF UHF/VHF echoes. Hans Rasmussen found echoes delayed by 4.6 seconds at 1296 Mhz, Yurek recorded a 5.75 second delay at 432 Mhz. None of these hypotheses can explain everything. Only the first mechanism is well established, and none of the other four are well-established enough to deserve the term "theory". The phenomena are often fleeting and non-repeatable. Our understanding of how the magnetosphere interacts with the solar wind is still evolving. With slides and videos AI / W3CE presented this program.

CHRISTMAS CITY SPECIAL EVENT STATION

Again this holiday season, the DLARC special event branch, "The Christmas City Station" will be on the air. Over the weekend of December 8th and 9th from the Milk House with the call of WX3MAS. This our way of celebrating Christmas and wishing other hams around the world a "Merry Christmas" from the twin Christmas Cities of Nazareth and Bethlehem. Jon / NJ3I will again chair this event and is looking for support from the general membership. Operators will be needed man the radios during the on air period. Jon did a good job last year, but volunteers are needed to continue our tradition. Jon also has said that there will be a turkey dinner Saturday evening and left overs for Sunday plus any Christmas goodies you would like to bring.

WEDNESDAY NIGHT NETS

Additional Net Controls are needed for the Wednesday Night ARES, RACES & DLARC net. If we have enough interested operators, it will only be necessary for each operator to have only one net session in each three month period. Actually 13 weeks in a period, so 13 net controls would be ideal, and maybe some extras to fill in if needed. This would give us a pool of experienced controls, for any emergency which would arise. Interested operators should contact Don / KC3II at kc3ii@arrl.net or AI / W3CE at w3ce@arrl.net The NIMS IS-700 and ICS-100 courses are not required to be a net control, but should the need arise and we do supply controls and operators for real emergencies, then the courses requirement will be in effect.

FUTURE PROGRAM ANNOUNCEMENT

The program for the February 7th, 2013 will be Lt. Colonel and NASA Astronaut Terry Hart., who was a mission specialist on STS 41-C Challenger. Presently a professor at Lehigh University. Be sure not to miss this program!! Mark it on you calendar now.

HISTORIC STORY OF THE CAR RADIO

One evening, in 1929, two young men named William Lear and Elmer Wavering drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois, to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car.

Lear and Wavering liked the idea. Both men had tinkered with radios (Lear had served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car. But it wasn't as easy as it sounds: automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running.

SIGNING ON

One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago. There they met Paul Galvin, owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator" a device that allowed battery-powered radios to run on household AC current. But as more homes were wired for electricity more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker. Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard. Good idea, but it didn't work -- Half an hour after the installation, the banker's Packard caught on fire. (They didn't get the loan.)

Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioners could hear it. That idea worked -- He got enough orders to put the radio into production.

WHAT'S IN A NAME

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier. In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names -- Radiola, Columbiola, and Victrola were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the Motorola. But even with the name change, the radio still had problems:

When Motorola went on sale in 1930, it cost about \$110 uninstalled, at a time when you could buy a brand-new car for \$650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about \$3,000 today.)

In 1930 it took two men several days to put in a car radio -- The dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut open to install the antenna. These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them. The installation manual had eight complete diagrams and 28 pages of instructions.

HIT THE ROAD

Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression --

Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory. In 1934 they got another boost when Galvin struck a deal with B.F. Goodrich tire company to sell and install them in its chain of tire stores. By then the price of the radio, installation included, had dropped to \$55. The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947.)

In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts. In 1940 he developed with the first handheld two-way radio -- The Handie-Talkie -- for the U. S. Army.

A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II. In 1947 they came out with the first television to sell under \$200. In 1956 the company introduced the world's first pager; in 1969 it supplied the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon. In 1973 it invented the world's first handheld cellular phone. Today Motorola is one of the largest cell phone manufacturer in the world -- And it all started with the car radio.

WHATEVER HAPPENED TO

The two men who installed the first radio in Paul Galvin's car, Elmer Wavering and William Lear, ended up taking very different paths in life. Wavering stayed with Motorola. In the 1950s he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention led to such luxuries as power windows, power seats, and, eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that. But what he's really famous for are his contributions to the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass-produced, affordable business jet. (Not bad for a guy who dropped out of school after the eighth grade.)

Sometimes it is fun to find out how some of the many things that we take for granted actually came into being! And it all started with a woman's suggestion!

F.Y.I.

The November Prize Winners were Bob / KE3AW, Al / W3CE, Andy / WV1B, Paddy / AJ3B, Doreen / K3PDL, Don / KB3YGR, Charlie / W3OPA, Ed / N3MSK, Pete . K2PM, Vic / N2OFF and John / NT3P
The January Program will be "My American Freedom Via Amateur Radio" - Elix / AC7HU

The D.L.A.R.C. meets the "FIRST" Thursday of each month. Membership, friends and interested persons meet at the Bethlehem Area Vo-Tech School (3300 Chester Avenue, 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.

D-Star Mid-Atlantic Regional net meets the second and fourth Tuesdays of each month on the 147.165 port with a number of other repeaters in Eastern Pennsylvania, New Jersey and New York City area .

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. Every member of the D.L.A.R.C. Is welcome to contribute articles of interest to this newsletter. Opinions, items of interest, and even suggestions towards the improvement of newsletter and/or the DLARC, itself would also be accepted, as a sort of "Letters to the Editor" section.

The Milkhouse 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 Area Vo-Tech School
TALK IN ON 146.700 (PL 151.4)

THE W3OK TRUSTEE --- Jon Matson / NJ3I

The W3OK Corral is published monthly and is the Official Publication of the DELAWARE LEHIGH AMATEUR RADIO CLUB INC.

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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 (167.9) W3OI Repeater.

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