THE DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC.

NEWS

RD #4
GREYSTONE BUILDING
NAZARETH, PA
18064

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* DECEMBER 6, 1989 *
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DUES ARE DUE!

OPTICAL FIBER - WHAT THE HECK IS IT ?

by Bob, KW3W

If you've ever heard of Fiber Optics, you will be interested in coming to the December DLARC meeting. I have been fortunate enough to get a copy of an AT&T tape about just that subject. The tape runs approximately a half hour and tells all about the manufacture of optical fiber at AT&T's Orlando Plant. I viewed it for the first time while taking a course in Fiber Optic System Design. I'm sure its not tooooooooo deep, in fact it's really entertaining and extremely informative. See you at the meeting. 73 de KILO-WATT THREE WHISKEY es GUNKE.

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NOW IS THE TIME

This is the time of the year when our treasurer, Roy, KA3MNY makes his presence known to all of us. It is the time for your annual assesment to be paid to the DLARC for the coming year. Don't wait until the last minute. Make your check out for $12.00 and send it direct to Roy at his home address of 220 E. Chestnut Street, Nazareth, PA. 18064.

PA QSO PARTY GREAT!

What a turnout!, even Ray, our PAQSO party chairman was happy. The reports I have heard from all over the state, is "where the heck did all those NHA and LEH guys come from? We sure were there and showed that when asked, we can do it all. With a total score of what is estimated at over 1.6 million we should be at the top or at least near the top for the state.

VERN, N5IEP NAMED EMERGENCY COORDINATOR

by Clarence, W3PYF

Kay Craigie, KC3LM, Eastern Pennsylvania Section Manager for the ARRL has named Vern Burden, N5IEP Emergency Coordinator for Northampton County. In his new appointment, which he adds to his Public Relation Assistant appointment he will be working with me in none RACES drills or activities.

You will find in the near future that the Sunday drill will be designated RACES and Wednesday drill will carry the name of ARES. Nothing else will change at this time.

There will be no change in the procedures except that all will be included. With this newsletter, you will find an application for membership in the ARRL Emergency Service. Fill it out and mail it or give it Vern at the next meeting. This has no bearing on your RACES membership. This is completely different.

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JOHN GREENAGE, K3GQJ TO HEAD VE GROUP

Beginning with the first of the year, John, K3GQJ will take over the leadership of the VE testing for DLARC. He succeeds Don, KC3II who has done the job for over 3 years. Contrary to my least months bulletin, Don followed Dennis, KR3U who started the program 5 years ago and continued for two years before turning the reigns over to KC3II.

John will be assisted by Robin, KD3HS in the handling of the duties. For your information, beginning with the session after the December meeting, John's address and phone number for use of applicants is:

RD#3 Box 775A, Slatington, Pa 18080
Phone 215 767-4778

A list of the VE's who help with this testing appears elsewhere in this newsletter

de W3PYF

MEETING MINUTES
by Dave, N3EYT

The November 2nd meeting of the DLARC was called to order at 7:33 p.m. by Clarence Snyder, W3PYF, presiding. A total of 67 members and guests attended the meeting which was held in the Greystone building at the Gracedale complex in Nazareth. The minutes of the previous month's meeting were approved as printed in the club newsletter. Roy, KA3MNY, gave the Treasurer's report which was also approved.

KU3X presented a club DX-100 award to N3GDV, Nick, for 10 Mtr. SSB. Good going Nick!

The annual club raffle will be chaired by "Brownie", W3CJI again this year. Raffle tickets will be mailed to all club members. If you need more tickets, please contact W3CJI. The first prize will again be a VCR, with second and third prices being a cordless phone and a Walkman respectively. Any unsold raffle tickets and all monies from sales of tickets should be returned no later than the January 1990 DLARC club meeting.

The club received a "Thank You" from Marie Grimm and family for the flowers which the club had sent.

New members accepted into the club are: W3MIU, Charlie; W3IPK, Ken; Roy Everett and Wendy Mosley (calls pending); KB2IKO,Peter; KB2IKN, Karen.

Congratulations are in order for N5IEP, Vern, who has accepted the position as the new Emergency Coordinator (EC) for Northampton County.

EMA (Emergency Management Agency) applications for Northampton County were made available by Clarence, W3PYF. You may join Northampton county EMA regardless of where you live and doing so provides insurance coverage for you during any EMA function.

Ray, W3TDF, proposed a committee to visit amateurs who are not active for some reason (age, illness, etc.). The committee would help to reactivate and encourage inactive hams.

Ray also reported that the annual DLARC banquet has been set for May 5th, 1990 at the Camelot Restaurant in Center Valley.

Mark you calendars now. The cost will be $12.50 per person with a limit of 100 people due to banquet room size.

NU3L was acknowledged and thanks given for the fine job he did on the repeater map he did which appeared in the November newsletter. K3NZ printed single copies of the map and made them available at the meeting.

The new licencing class is going very well according to K3EX, Daryl. The first class was attended by 20 potential licensees and the second class boasted five additional students. Watch out, the youngest student in the new class is seven years old. This may be the youngest new member of the DLARC coming up. The current need is seen for two Novice classes per year, one during the spring and one during the fall. A kind of "Post-Grad" course where you could share your expertise in an area has stirred some interest. Please contact K3EX if you are interested.

Robin, KD3HS reported of a schedule with the special event station in Northampton, England which is celebrating its 800 year anniversary by use of Amateur Radio and station GB800. The official anniversary date is November 19th. K3ANS stated that it would be good to try and have the Northampton County Commissioner speak with his counterpart in Northampton, England on the anniversary date. K3ANS suggested his station might be used or that of K3OO.

The PA QSO Party is over but not forgotten. Ray says the club has the potential to break the record set in 1987. We are anxiously awaiting the results. Thanks to all who participated in the event.

K3EX suggested establishing a technical library for the club and moved that we purchase a 1990 North American Callbook for reference. This motion was passed.

K3ANS spoke to recognize K3OO on his achievement in last weekend's DX contest. Rick accumulated a score of 4.52 million points! (What, this wasn't QRP?)

KA3MNY said that jackets with or without the club logo can be purchased in a variety of styles and colors. See Roy for details.

Norm, K3NZ gave a short and colorful report on his three-man DXpedition to St. Kitts. He advised, if you ever have the chance to go on a DXpedition, do it!

The business meeting was adjourned.

de Dave, N3EYT

TWAS THE MONTH BEFORE CHRISTMAS

by Dewi, N3FNW

Twas the month before Christmas and Santa was there Recovering from little ones pulling his hair.

His nerves were a tingle, his knee was a sop From pampers that leaked and a frustrated pop. Now you may ask why he chose such a job For Christmas mom invited an insatiable mob.

The security check would hardly suffice, To buy the drinks let alone enough ice. The lists were endless for baby a rattle, For the girls dolls with clothes ample for battle.

Now came the boys with their imaginations supreme, They sat on the lap of the man with a gleam.



For Tommy, age seven a radio please, With a plug in earphone to listen with ease. Billy age eight was easy, a tape player will do, So he can hide it and eavesdrop on Mom and of course you.

Now for the biggies, Jimmy, age twelve, A boom box with stereo speakers, Oh hell! Richie, a CB to talk to his friends, And listen to truckers and learn the new trends.

Pop, you too! what could you possibly want? You have everything an old man could flaunt. A Kenwood TS950 will sure make me squirm, And a good set of earphones to block out QRM.

Mom, hey Mom, what are you doing up there? That old guy don't want you pulling his hair. You want what? some acoustical tiles, To put into the kitchen near the recipe files.

Now the moral of this thing is certainly apparent, What a joy it is to be a ham and a parent. But when the offspring go off in the crowd, their successes in life will sure make us proud.

To paraphrase an anonymous but all too true maxim: Twixt men and boys the difference is minim. The measure you use will some day be lost, but today, it simply is how much does it cost.

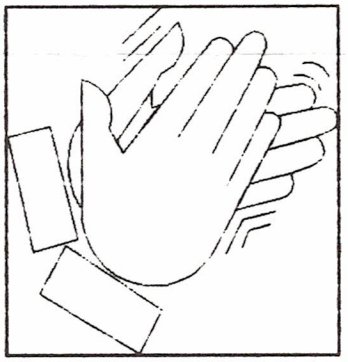
*JOIN*THE DLARC "ELMER PROGRAM", SEE STORY ON THIS PAGE.!

PA QSO PARTY

by Ray, W3TDF

Well the 1989 affair is now history. The scores of the participating DLARC members (60+) have all been reported to me, and I am thrilled. The grand total is just short of 1.6 Million. Previous record was just short of 1.55 Million. Our chief competitors were Murgas and Dauberville, and I'm very optimistic, since they were not evident on the bands to the point of threatening numbers.Yours truly had a clean sweep (all 67 counties). KO3M and K3ANS had 66, AE3T - 65, KA3OEG & KB3TS - 64, W3LR 63, KA3MND, K3CP, W3XM & K3YD -62. The counties which were hardest to find were WAR, CRN & ARM. But, KO3M missed WES! The 5 top scores, (in order) K3ANS, W3LR, W3TDF, AE3T & KA3OEG. If(?) And when the revolving club trophy comes to NAZARETH, the presentation will be attended by KC3LM-(Kay Craigie) and many other dignitaries.

My congratulations to all participants. You have made your club proud, and you, therefore should be proud. For the new folks this year, I only hope your interest has been whetted enough to get in there again next year and help us set another record..de Ray, W3TDF



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NOVICE CLASS STATS

by Daryl, K3EX

The Novice classes have 23 students and of the students there are 17 adults and 6 children. Of the children there are 4 boys and 3 girls. I didn't have the nerve to ask who was the oldest. We need information on the used equipment for some of the new comers if you have anything, please contact me. In addition we want to have an ELMER program, where these students can visit your shack..If you will help, contact me and I will arrange to have those who live close to you visit.

Digital Communications
by Joel, K9TBD

Packet Nodes and Digi's and Stuff

Lots of people are entering the packet revolution. There are numerous stations active here in the Lehigh Valley. The instruction books get you to the point of being able to get your station on the air, but there is very little information on how all this system works. This article may wash away a little of the mystery, then it may add some also. I will begin with the barest details then discuss a real live test which I performed to satisfy my own curiosity.

The envelope has all the address information as well as some other controls and checking - to ensure the packet gets to the right receiving station without error. The packet may not go directly from one station to another but may be handled by intermediate stations. There are two methods of routing the packet, one is by digipeating the message and the other is by a store and forward node.

To test the different handling (digi vs node) of packets, I started from K9TBD-C and went to WB3DTG through intermediate stations K9TBD, DLARC, and LNB. I asked WB3DTG's mailbox to List Mine (of which there were no messages) and it responded that there were no messages. I then disconnected and all the links in the chain dropped. The amount of information I requested was a handful of characters and what was interesting was the amount of overhead in passing that information. Realize that each piece of information was handled four (4) times, one by each link. Here is a little table which summarizes this short test:

Information (bytes)	Node	Digi
Message	*226*	*370*
Conn/Disconn	*1,907*	*654*
Total	*2,133*	*1,024*

It is interesting to note that the overhead for using nodes in connecting and disconnection is more than that of using the digi method - this is primarily because each node give extra information that digis do not during this process. It is just as interesting to note that once the connection is established, there is more overhead in sending information through the digi method - this is primarily due to the fact that the whole chain of digi addresses is carried in each packet using digis whereas nodes only have two addresses.

The following is a sample of the message exchange (deleting all the connect and disconnect traffic):

```
----using nodes----
K9TBD-C>K9TBD:lm
K9TBD-3>DLARC:lm
K9TBD-2>LNB:lm
K9TBD-3>DLARC:lm
K9TBD-1>WB3DTG:lm
WB3DTG>K9TBD-1:*** Not found
WB3DTG BBS>

LNB>K9TBD-2:*** Not found
WB3DTG BBS>
DLARC>K9TBD-3:*** Not found
WB3DTG BBS>
K9TBD>K9TBD-C:*** Not found
WB3DTG BBS>

----using digis----
K9TBD-C/K9TBD/DLARC/LNB>WB3DTG:lm
K9TBD-C/K9TBD+/DLARC/LNB>WB3DTG:lm
K9TBD-C/K9TBD/DLARC+/LNB>WB3DTG:lm
K9TBD-C/K9TBD/DLARC/LNB+>WB3DTG:lm
WB3DTG/LNB/DLARC/K9TBD>K9TBD-C:*Not found
WB3DTG BBS>
WB3DTG/LNB+/DLARC/K9TBD>K9TBD-C:*Not found
WB3DTG BBS>
WB3DTG/LNB/DLARC+/K9TBD>K9TBD-C:*Not found
WB3DTG BBS>
WB3DTG/LNB/DLARC/K9TBD+>K9TBD-C:*Not found
WB3DTG BBS>
```

Notice that using the nodes there apparently was a timeout and there was a repeated request from k9tbd-3 to DLARC. Here are a few tips: If you do not need an intermediate station to reach your destination by all means do not use them (this saves time and reduces traffic on the frequency). If links are needed, your first choice should be a digi, this will minimize collisions. When using nodes for long links, some of the links may be better served by using direct diging between some of the stations. The better all stations hear each other the better the utilization of the channel. Remember that the frequency is shared by many (and growing numbers) users, so be considerate of them and all will be served better.

I wish I could give you more details but if more is needed, write to ARRL for the Technical Document on AX.25..de K9TBD, Joel

MORE PUBLIC SERVICE

by Verne, N5IEP

The DLARC helped provide radio communications as part of the parade security group for the Emmaus Halloween parade on October 21st. This was a joint effort with hams and those other guys (11m). We all had a good time driving our cars in the parade and with the club signs on the cars the DLARC gained a little publicity. this included television coverage from the reviewing stand. Although it was stated that we were the "W thirty K" Radio Club it was a start.

Many thanks to KA3TEQ (who was waving to all the women) and his pilot KA3TMR, N3FWU and his xyl and KA3MTY and his patient co-pilot. Next year we have been asked to provide all the radio operators for the parade (8 hams with cars), so think ahead. this should be plenty of advance notice. thanks again to all who helped.

...de Verne N5IEP

IT WORKED

Contact with Northampton England big success.

This time Murphy was not at work. Sunday morning, November 19, with the bands filled with contesters in the Sweepstakes, Bill K3ANS representing the DLARC did it.

With Jerry Seyfried, the Northampton County newly elected executive at his side, Bill was able to establish contact with GB8OO in Northampton, England and had Mr. Seyfried talk to the Burgess of Northampton England. For about 15 or 20 minutes the two executives were deep in the politics and history of the namesakes. Bill then had the Northampton England station QSY to 28462 and thru the intercom of 146.70, about 8 or 9 other members of the club worked them as well. *EDITORS NOTE:* It is interesting to note that Mr. Seyfried was a radio operator in the service, and spent some of time after the contact with England, playing with the key at Bill's shack. He said he could copy and send at 40 wpm in the service. Maybe we can get a 4 or 5 element beam on the Court House..de W3PYF

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VE TESTING SCHEDULE

The next VE testing session of the DLARC group will be held on December 8th at the Greystone Building. There will be no January testing, but in February it will restart with testing on Februay 2nd and continue on the first Friday after the first Thursday every month. A report from KC3II shows that at the last session in November there were 11 candidates, 4 upgrades, and 1 credit. Who are the VE's who have helped make this work? Don, KC3II who has led this program for the past 3 years gave me this list. They include, KA3MNY, W3TDF, N3EBH, W2CCE, NC3P, K3GQJ, W3APE, W3BI, K3YU, KU3K, K3CQY, KW3W, NS3J, K3OO, WA3MVQ, NU3L and KO3M. Our thanks to all for helping to make the Special Service Club work with this kind of service to the Amateur community.



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FOR SALE

Butternut HF5B Mini-Beam Antenna. Used for 9 months, 18 months old. Mind condition, W/Manual. Semi-Assembled. $125.00

Hustler 68TV 10-80 HF Vertical. 1 year old. Good condition w/manual. $75.00. Call Joe, N3ELM at (215) 821-6865.

Go to the legal limit..Brownie, W3CJI has for sale an Alpha 77D. Asking $2995.00..Call him at 433-4485.

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ATTENION ALL CONTESTERS

Ann, KO3M sent the following information.

To enjoy operating your station in a contest, put on loose clothing, take off rings and wrist watches to aid circulation, hold the rules of the contest in one hand and tell the guest operator to go ahead and operate.

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STAR 1 STILL DOING IT!

During the month of October, 17 calls were made to Nothampton County Control from members of the amateur fraternity, via our auto patch. They included everything from a deer hit by car, accidents, disabled vehicles and pallets on the roadway of route 22.

REMEMBER JOINING ARRL IS NOT A SUBSCRIPTION

CAPACITORS (Cont.)

By Van K3CP

When we left Ima Lidd and Elmer last time they were discussing capacitors. Elmer had explained their use as filters and as DC blocking devices. Ima asked about the ratings of the capacitors. Elmer said that they are rated according to their capacity. The unit of capacitance is the farad. A farad is equal to the number of amperes in one second that will produce a charge of one volt. It is too large a unit for amateur radio work. So we use micro and pico farads. One micro farad is 1 X 10 to the minus 6 farads or .000001 farads. A micro micro farad (uuf) is the same as a pico farad (pf) and that is 1.0 X 10 to the minus 12 farads. You can determine the number of zeros by counting from the basic number 1.0, always count from the decimal to determine the power of ten. If the power is negative, count to the left. If it's positive count to the right. A .0001 micro farad (uf) capacitor can be converted to pico farads (pf) by moving the decimal 6 places to the right. That would make it a 100 pico farad capacitor. Remember, if you want to convert to a smaller unit (pf) move the decimal to the right and to the left for the larger unit (uf). Ima Lidd wasn't sure he understood all of that, but Elmer said that although it was not easy the first time, it would be easier the next time Ima came upon the subject.

It's important to use the proper voltage rating so as to avoid shorting the capacitor. This is the most common cause of failure. You can add capacitors in series to increase their voltage breakdown value, but this reduces the capacitance. For example:--if a .01 uf capacitor with a voltage rating of 25 volts is put in series with another one of the same rating, the combined capacitance would be .005 uf and 50 volts breakdown. If they were placed in parallel the combined capacity would be .02 and 25 volts.

Another use for capacitors is in timing circuits. Consider a circuit wired with a battery, a resistor, a switch, a capacitor and a voltmeter with components in series except the voltmeter which is across the capacitor. When the switch is closed the electrons flow from the battery through the resistor to the capacitor. As they charge the capacitor a voltage builds up across it. This voltage is measured by the volt meter. The capacitor will reach full charge after a period of time depending on, among other things, the value of the resistor.The larger the resistor and capacitor, the longer time it will take to fully charge the capacitor. This is known as the time constant and it can be used in timing circuits. For example, when the switch is initially closed and the capacitor is completely discharged, the rush of current through the resistor to the capacitor is the greatest. When the voltage across the capacitor is equal to that of the battery, the current will stop flowing. If the resistor is 1.0 meg ohms and the capacitor is 1.0 micro farads the time constant would be 1,000,000 ohms times .000001 farads or 1.0 second. Ima started to see why Elmer took time to explain about the powers of ten. He said another way of stating the formula would be to say that 1 X 10 to the sixth power times 1 X 10 to the minus 6th power equaled one. Elmer said "See". Every time you use your knowledge you build on it. Always remember to start counting at the decimal The figure 1 is really 1.0 (Sentence ending period intentionally omitted.) That is why there is one less zero going to the left.

Elmer said if you replaced the single pole, single throw switch in the above circuit with a double pole, double throw reversing switch you could examine the effect of frequency on the circuit. The faster you reverse the polarity, the more average current would flow. This means that the higher the frequency of the applied voltage the lower the opposition to the current flow. This opposition is known as Capacitive Reactance. An example of how to use this property of capacitors is the cross over networks of hi fi speaker systems. You want to keep the low frequencies out of the tweeters so you insert a capacitor that has a high reactance to those frequencies. It will keep the high power, low frequencies out of the small tweeters and allow the higher frequencies to pass. Ah ha. Ima said the reactance of the capacitor was high when the reversing switch was thrown slowly and low when it was speeded up. Elmer was delighted that Ima understood. Ima said "See". de Van, K3CP

SO WE WENT ON A DXPEDITION

During early summer '89, Tony, WB2P and Rich, K3IPK planned a DXpedition to the island of St. Kitts for the CQ World-Wide Phone Contest. In mid-summer, Norm, K3NZ signed on as the third operator. In spite of a few minor problems, like Hurricane Hugo, the DX-pedition came off as planned with a very successful contest operation. This is their story:

October 23 -I left home with a carload of radio gear, tools, and spare parts. I picked up Rich, with a similar load of gear, in suburban Philadelphia and headed down to Tony's place in Vincentown, NJ. We spent most of Monday evening arranging our radio gear and baggage into **NINE** forty-three pound carry-on packages to meet airline regulations. Our gear included:

2-TS930's 1-TS940, 3-LA1000 Amplifiers,

2-Butternut HF6V verticals in a 54" long, 6" diameter PVC tube, plus the usual wire, coax, connectors, patch cords, tool kits, microphones, Digital Voice Keyers-(DVK's) headphones and all the other stuff necessary to set up a complete three-transmitter station. Oh, somewhere in there were a couple changes of socks and a camera.

October 24- We drove to the airport, then flew to St. Kitts via San Juan. The trip was totally uneventful except for the fact that Tony lost his passport in the airport parking lot(he did find it), and none of the checked baggage arrived at St. Kitts! Oh well, the radio gear was in carry-on baggage-they made it.

Passing through customs was a breeze with the statesmanship of Colin V44KQ paving our way. We piled into Colin's van and were whisked off to our deluxe beach house..just upwind from the island land-fill. The house was only 50' from the water and nobody was going to complain about antennas here.

A sidenote..a local souvenir shop calls this area "Radio Heaven." A random wire from the peak of the house to the garden fence was enough to announce to the listening word that V47KH (Rich), V47KO (Norm) and V47KS (Tony) had arrived on St. Kitts.

October 25-We spent the morning scrounging tower sections, masts, beams and coax from the locals on the island. When our lost baggage finally arrived, Rich was able to get out of his Flannel shirt which was getting quite uncomfortable in the 88 degree heat. We then went shopping for food. By Wednesday we did have 10 & 15 meter beams up and the verticals sitting at the edge of the ocean.

October 26-We got the 20 meter beam up and then tackled the 40 & 80 M. wire antennas. The day was spent trying to get the 40 Meter 3-el wire beam and the 80 M inverted V to work..They never did.

October 27-Contest Day morning. We spent the day working a little DX, and straightening out problems.

000Z October 28-**CONTEST TIME!**, and V47K (our contest call) is on the air. Ten meters is dead, but 15,20, and 40 are HOT! 80 and 160 are loaded with lots of line noise: everybody wants QSL info. Still, we made over 2000 QSO's in the first 4 hours. By morning 1100Z, 10 opens up, but now line noise is hurting 20, Rich programs QSL info (via WB2P) into his DVK. K3NZ is under the weather with a bug, and has to take frequent nap breaks. on Saturday nite (0400Z) we tried 160 and could hear many stations, but couldn't work anybody. On Sunday morning we discovered that the tide had knocked over the 160M vertical.

October 29- Line noise is back on 20 but 10 & 15 are still hot, right till the end.

000Z October 30- Contest is over!! We, Tony and Norm, celebrate with a case of the local brew. It was gone in 90 minutes. Rich celebrated by going on CW to give out a few contacts. After a few hours sleep, we toured the island. On our return one of our Butternuts was missing. We finally located it about 30' from the shore, on the bottom. Tony rescued it.

THE RESULTS: Overall contest results show about 14,000 contacts and a final score of about 17.8 million points. Besides we made several thousand more contacts before and after the contest. Did we have fun...you bet we did, and we'd all go back in a minute.

THANKS: Although we took our own station equipment with us, we used several local beams and towers, thanks to the generous support of the local hams. Three of the locals that were especially hospital and helpful were, Colin, V44KQ, Keith V44KT, and Henry V44KW..A special salute to them.

de Norm, K3NZ es Tony, WB2P

THE LAST GASP FOR 1989
by Allen, N3GMI

I sprang out of bed when the alarm went off at three AM. Quickly and quietly I dressed, jumped into the trusty mobile and was off to Sellersville for the last hamfest of the season. The hair on the back of my neck fairly bristled with anticipation. Nostrils flared and the pupils dilated as my eyes prepared to go into rapid scan mode.

Tucked into my pocket was my trusty flashlight to aid in the search for the elusive bargain.

Upon arrival, I was not surprised to find that lots of other people had the same idea as mine. The darkness of the night was pierced by the laser-like beams of dozens of flashlights. The stillness was broken by the din of dickering ("What's your best price?" " You want what for that junk?")

I raced from table to table, car to van, eyes scanning, my hand ready to dart into my pocket to draw out the cash.

Suddenly there it was!!! The 2 meter rig I was looking for. I switched to casual mode, asked the price and offered the dealer less. **HE ACCEPTED!!! (UNBELIEVABLE).** I almost broke my wrist doing the quick draw for the money. Finally it was done!...I tucked my trophy under my arm and leisurely walked away.

The sunrise was especially beautiful this day. I made some other purchases, then set up my wares which to my surprise I sold, (including the table).

As the days get cold and dreary, I'll reflect warmly on this day and come next Spring I'll be raring to go again. 73!!

de Allen, N3GMI

DUES ARE DUE

Mail them now!



Roy Buss, KA3MNY Treasurer
220 Chestnut Street
Nazareth, PA 18064

VALSEZ
by Val, W3EFL

I will do more than belong..I will participate.
I will do more than care...I will help.
I will do more than believe...I will be kind.
I will do more than forgive...I will forget.
I will do more than dream...I will work
I will do more than teach...I will inspire.
I will do more than earn...I will enrich.
I will do more than give...I will serve.
I will do more than live...I will grow.
I will do more than be friendly...I will be a friend.

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MURPHY'S LAW?

1. If anything can go wrong, it will.
2. If there is a possibility of several things going wrong, the one that will cause the most damage will be the first tone to go wrong.
3. If anything just cannot go wrong, it will anyway.
4. If you perceive that there are four possible ways in which something can go wrong, and circumvent these, then a fifty way, unprepared for, will promptly develop
5. Left to themselves, things tend to go from bad to worse.
6. If everything seems to be going well, you have obviously overlooked something.
7. Nature always sides with the hidden flaw.
8. If you didn't give your PAQSO logs to Ray, W3TDF, and didn't send them in yourself, be prepared for the worst.

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WELCOME TO DLARC

At the November meeting the following were admitted to membership:

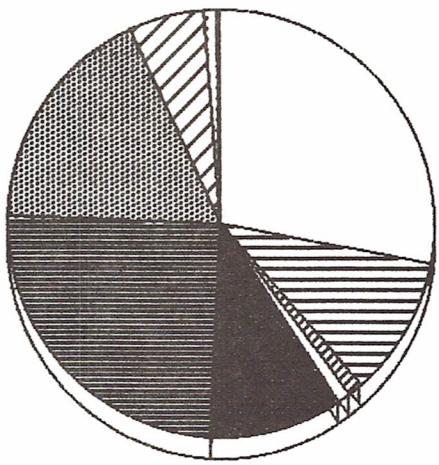
Roy T. Everett N2JZZ
Karen Everett KB2IKN
Peter Everett KB2IKO
Charles Wetzel W3MIU
Kenneth Madsen W3IPK
Wendy Moseley KA3UZO

Welcome to the Delaware-Lehigh Amateur Radio Club..One comment, the Bangor Jennings family better watch out..The Everett's will be up to you soon. Again Welcome..<W3PYF>

DLARC-Income & Expense FY 89

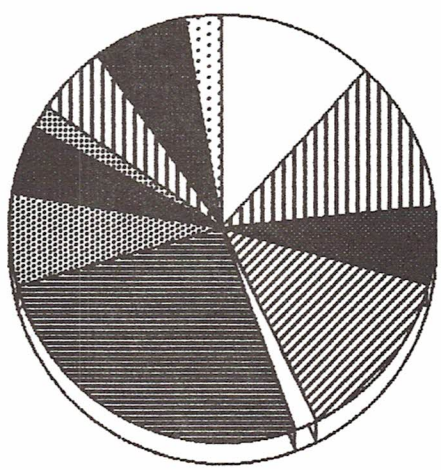
INCOME	Total 1989
Dues	$2739.00
ARRL Dues Collection	$1039.00
ARRL Commissions	$6.00
Interest	$110.33
50/50 Income	$108.00
Miscellaneous	$978.75
Project Income	$2403.00
Banquet/Party	$1712.44
BOOK/Jacket SALES	$565.00
NEWSLETTER ADS	$75.00
Donations	$35.00
TOTAL INCOME	$9771.52
EXPENSES	
Newsletter Printing	$879.80
N.letter Postage/Labels	$866.85
Telephone	$446.86
ARRL Membership	$1018.00
Admin. Postage	$118.80
50/50 prizes	$0.00
Banquet/Party/picnic	$1963.17
Field Day	$525.16
PA Qso Party	$30.00
MAINTENANCE RESERVE	$0.00
New Equipment	$373.14
Sympathy	$135.66
BOOK PURCHASES	$406.35
Legal Expenses	$0.00
PROGRAM EXPENSE	$12.25
Project Exp.	$514.94
Miscellaneous	$212.25
TOTAL EXPENSES	$7503.23
BEGINNING BALANCE	$1388.27
ENDING BALANCE	$3656.56

DLARC FY89 INCOME ITEMS



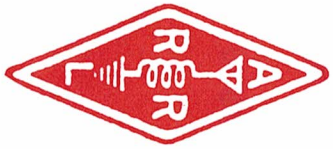
- Dues
- ARRL Dues
- ARRL Comm.
- Interest
- 50/50 Income
- Miscellaneous
- Project Inc.
- Banquet/Party
- BOOK/Jacket
- N.Letter Ads
- Donations

1989 DLARC EXPENSES



- N.Letter Print
- N.letter Post.
- Telephone
- ARRL Dues
- Admin. Post.
- 50/50 prizes
- Banquet/picnic
- Field Day
- PA Qso Party
- MAINT. RES.
- New Eq'pment
- Sympathy
- Book Purch.
- Legal Exp.
- Program Exp.
- Project Exp.
- Miscellaneous

12.89 **de K3YD**





NEWS

THE DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC.

RD #4
GREYSTONE BUILDING
NAZARETH, PA
18064



All Amateur Radio Operators are invited to participate in the DLARC, ARES, EMA Nets on 146.70 W3OK/rpt.
The Nets are held on Sundays at 9:30 AM and on Wednesdays at 7:00 PM.
The alternate repeater for these Nets is 145.11 W3PYF/rpt.

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The DLARC NEWS is published monthly and is the Official Publication of the Delaware-Lehigh Amateur Radio Club Inc.

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1990

CLUB OFFICERS

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Vice President - Ray Bilger.....W3TDF..346-7313
Secretary - David Blankenship....N3EYT..974-8299
Treasurer - Roy Buss.....KA3MNY.759-2674

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CLUB MEETING NIGHT

All regular meetings of the D.L.A.R.C. are held on the first Thursday of each month at 7:30 PM in the Greystone Building at Gracedale.
Phone....759-2600

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Any comments or articles contributed to this newsletter should be addressed to
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