THE DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC.

NEWS

RD #4
GREYSTONE BUILDING
NAZARETH, PA
18064

****
* NOVEMBER 2, 1989 *
****

A DXPEDITION TO VIETNAM

HOW DO YOU OPERATE FROM VIETNAM
by Bill, K3ANS

The program for the November 5th meeting of the Delaware-Lehigh Amateur Radio Club, Inc. will feature a video presentation of a group of Hungarian amateur operators who went to Vietnam some months ago and operated from the that location.

The video is very graphic and in addition to the operation as 3W8DX and 3W8CW shows a lot of the scenery in that country.

Come and see this very interesting film.

****

PA QSO PARTY, WHAT A BASH!

Well if we didn't do it, it is not because we did not try. What a turn-out the DLARC had in the PA QSO party. With PA party chairman, W3TDF making his goal by operating from Cambria county, his report to me was, "a clean sweep, every county in the state", over 100,000 points and the highest in Cambria county. With Bill, K3ANS going like the hammers of you know what to take the Northampton County lead, and with the other regulars and many of us irregulars following, it was a great effort by our club. Don, W3LR, was busy making a new record by beating his own in Lehigh County.

Many of the Technicians did very well as they covered much of the territory on the novice/tech portions of the band.

Now me must have all logs in by November 15th. If there is any question, bring them to the meeting and Ray will help in getting them ready for submission. He will mail them for you as a group from the club.

You can understand that I cannot mention all that I heard, but what I did hear was a great club effort. Lets show that we have the same enthusiasm for other club events in the future. With our other DXpeditioners, N3IK in Elk County, KA3OEG, K3NZ and KC3QQ being helped by a 350 pound black bear in Pike County, and N5IEP mobiling throughout central Pennsylvania, we sure were covering the state. I know that some will be missed in the this wrap-up which I am writing on the day after the party. Full details and some of the scores will be in the next issue of this newsletter. 73 Clarence W3PYF

****

CHECK THE BACK PAGE

Through the efforts of Chris, NU3L, you will find as page 9 of this issue a map of the 2 meter repeaters in Eastern Pennsylvania. This took a lot of work, and our thanks go to Chris for this tedious job.

His sources were the Repeater directory and his own experiences.

****

FROM YOUR PRESIDENT
de Clarence W3PYF

As I begin my second consecutive term as your president, I want to thank all who have helped make this a very successful year for the Delaware Lehigh Amateur Radio Club.. Our membership has grown to 281 members as of this date, and our treasury has remained sound. By the time this appears our packet digipeater node should be operational and our repeater has been working overtime.

Our EMA nets have been well attended and the meetings have had, thanks to Bill, K3ANS, some of the finest programs anyone could ask for. Much more for this year, let's all get together.

****

For Sale

Bob, WB3DTG has to sell or trade a complete satellite Icom Station. IC451A/IC-251A, antenna systems, rotors, Rohn tower and 2 sections of 25G Rohn Tower. If interested call him at 837-9021 or leave a message on his packet BBS.

A FEW MINUTES WITH NQ3D

The regularly scheduled meeting of the DLARC was held Thursday, October 5th at the Greystone Building of the Gracedale Complex in Nazareth. The meeting, with Clarence, W3PYF, presiding, was attended by 58 members and guests. The reading of the September meeting minutes, taken by W3TDF, was dispensed with.

Treasurer, KA3MNY, reported a club treasury balance of $3702.83.

New Members elected were:

W3IVG.....Joseph Koval
KB3TS.....Laing Batchler
KA3NRJ.....William Elovski
WO4H.....Alan Krensavage
WA3NSX.....Lee Adams

Under Old Business:

KA3MNY had several very nice samples of DLARC jackets complete with the club logo and the member's name/callsign. The jackets come in several styles/colors and range from $40-$50.

Shirts are also available at $25. These items are custom as to the member's choice of style and color and are "cash in advance". See Roy for details.

W3PYF was told by Hamtronics in Trevose the Kantronics Packet box for W3OK should be here the week of 10/8/89. This will give the club a W3OK-1 digipeater, and a DLARC node.

New Business:

NU3L reported Novice classes will begin Oct.23rd and run for 9 Monday evenings from 7 to 9 pm. Anyone interested should contact KD3HS, NU3L or K3EX. Posters will be displayed around the area and letters announcing the classes will be sent to area high schools. There is also the possibility of a General Class theory seminar if interest is high enough.

The annual Scout Jamboree-On-The-Air will be held Oct. 21-22. If you can possibly have some scouts to your home to demonstrate ham radio, your help would be appreciated. The W3OK club station is also available for this event!

PA QSO PARTY report: W3TDF, drooling over the possibility of a DLARC first place finish, had thousands of copies of log sheets, dupe sheets, operator itineraries available! Ray also had a lot a lot of great advice for any one interested in operating. The W3OK club station will be available! K3YD announced the following prizes will be awarded:

Top 3 scorers in club as in the past, plus, a prize to any DLARC member who is high score in the county from which he/she operated. Let's all remember to turn-in our logs, no matter how trivial you think your score may be. In this contest, EVERY POINT COUNTS!

In lieu of elections, the following officers for the upcoming year were announced:

President, Clarence, W3PYF; VP, Ray, W3TDF; Treasurer, Roy, KA3MNY; Secretary, Dave, N3EYT.

Board of Directors: Bill, K3ANS; Bart, W2SPK; Bob, KU3K; Blair, K3YD; Tony, N3CVH.

The business meeting was adjourned and a very informative presentation was given by W2GD on the no-code license.

de Mike, NQ3D

****

BONES!

Courtesy LVCG News

There are four kinds of "bones" in every organization.

1. There are the "Wishbones" who spend their time--wishing someone else would do the work.
2. There are "Jawbones" who do all the talking--but very little else.
3. Next, there are the "Knucklebones" who knock everything any one tries to do.
4. And finally, there are the "Backbones" who get under the load--<u>and do all the work.</u>

WHAT KIND OF BONE ARE YOU? (Make no bones about it. (Val, W3BPL)

****

FOR SALE

HTX-100 10 meter 25 watt output SSB/CW Mobile - original box Like new $195.00

Uniden Bearcat BC-145XL 16 programable scanner with power supply,$60.00 If you buy both the price is $250.00..Call Russ WA3LGG at 776-7786.

****

A.R.R.L. UPDATE..LATEST FROM THE LEAGUE

What Your League is Doing
by ARRL Director Steve, WA2DHF

The ARRL will actively seek alternative relief at the Federal level from state and local so-called scanner laws.

In its filing on the Part 97 Amateur Radio Rules rewrite the League asked the FCC to adopt a rule, tentatively numbered 96.415, for permitted apparatus. The rule, as requested by the League, would read; "Notwithstanding any state or local law to the contrary, and except as may be specifically prohibited by the laws of the United States, any station apparatus may be used in an amateur station, fixed, mobile or portable, whether or not such apparatus is incidentally capable of operation on frequencies assigned to another service."

The proposed rule, dealing with the possession of radio receivers capable of reception of Police or other Public Safety communications, would restate the Federal Government's pre-emption where local laws are in conflict with Federal law. This conflict arises when state statute and local laws are applied to the seizure of amateur radio equipment in the possession of amateur radio operators and/or the arrest of the operators for possession of that equipment if the equipment is incidentally capable of reception of communications on frequencies other than amateur radio frequencies.

In New Jersey several amateurs have had their equipment seized because it was capable of receiving local government frequencies in addition to amateur radio frequencies. The New Jersey law, NJS 2A:-127-4, states that any person who "installs or has in any automobile, a short wave radio receiver operative on frequencies assigned by the FCC for fire, police, municipal or other governmental uses, is guilty of a misdemeanor, unless a permit therefore has first been obtained from the chief of the county police, or from the chief of the police of the municipality, wherein such person resides."

Taken at its broadest term this law could mean that if you have ANY amateur radio equipment in your car it could be taken to be illegal. Why? Because New Jersey RACES is a governmental function and the law specifically bans the use of a receiver for such frequencies. This would make HF, VHF and UHF receivers illegal as RACES uses all of those bands.

The Electronic Communications Privacy Act of 1986 prohibits intentional interception of wire, oral or electronic communication, but specifically exempts, among other things, governmental, law enforcement, civil defense, private land mobile or public safety communications system, including police and fire, readily accessible to the general public. This is contained in 18 U.S.C. Section 2511(2)(g)(ii). The phrase "readily accessible to the general public" refers to the presence or absence of scrambling or encryption devices. Routine police or fire communications are not scrambled and are readily heard on amateur receivers with extended coverage.

This puts the Federal government and the state of New Jersey in opposition. The regulation of radio receivers and which frequencies may be included in receivers is a FCC, not state, function. Therefore the League will actively seek relief at the Federal level.

****

WE NEED YOUR HELP

Don, KC3II, who has run our VE testing sessions since it's inception, has asked to be relieved of the responsibility as of the end of the year. The December session will be his last.

Is there any of our members who are VE's who will take on the job of acting as liaison with ARRL and the club?

As one of the best testing groups in the area it will be a disaster to our club's reputation as a Special Service Club, if our VE program is allowed to die.

If you will take this over contact W3PYF or KC3II and let them know.

****

LEST WE FORGET

When you see Dave, WD5BRP, thank him for the great job he has done, and is doing in making the new club badges. Info for the badges is fed to him by Roy, KA3MNY via Packet and presto they are done..

Thanks Dave! de W3PYF

CAPACITORS

By Van K3CP

Ima Lidd was wondering about some of the basic components used in electronic circuits. So he asked his Elmer if he would review some of the fundamentals. Ima thought that was a good idea. Between the two they decided to discuss capacitors and how they work. Ima's first question concerned the purpose of capacitors. What did they do in a circuit? Elmer said that they perform several different tasks. They can act as filters in a power supply or block Direct Current in a circuit where it is not wanted. They are also used in "tank" circuits and in timing applications.

Elmer decided to explain each of the above uses. Before he did that, however, he wanted to talk in general terms and describe some typical capacitors. A capacitor - sometimes called condensers by old timers - is composed of conducting material separated by an insulating one. The electrical material or plates can be sheets of metal and the insulating material can be air. This is the form used for variable or tuning capacitors. In another design the plate can be metal foil and the separating insulator can be paper or mica. The general idea is to get the plates as close together as possible and still not touch each other. Other common materials are ceramics (metallized), tantalum and even a chemical film.

When a capacitor is placed in a circuit containing a battery and a switch the following happens when the switch is closed. The capacitor becomes charged! Elmer wanted to know just what that meant. Elmer explained that electrons (current) left the battery and went through the circuit to the capacitor where they bumped into the insulating plate. Their journey was over. Since there are now more electrons on one plate than the other, a potential or charge, exists across the two plates. Electrons are negative so that the plate having more electrons is negative compared to the other one. When the switch is opened the charge is stored for a time. The voltage gradually declines at a rate dependent on the construction of the capacitor. The charge or potential is a voltage and it can be measured with the proper equipment. OK, Elmer had explained briefly how they work. Now, how are they used? The first application mentioned above was that of a filter in a power supply. The voltage from a rectifying device contains some AC ripple. This means that the voltage is not constant. A typical example is a 13.8 volt power source..the variation could be in the order of a volt or so. This change in voltage level is 60 or 120 cycles and is the cause of hum in the equipment in which it is used. If a capacitor of the proper design is put into the circuit, it will smooth this ripple. It does this because of its storage ability. For example: Suppose that an unfiltered 13.8 volts had a ripple voltage of 1 volt. That means the voltage is varying between 13.3 and 14.3 volts. When the voltage is at a maximum of 14.3, the capacitor stores the excess. Then when the voltage drops to 13.3 volts the capacitor discharges its excess electrons. This tends to smooth the voltage by keeping it at a constant level. The next application is that of DC blocking. When the electrons flowing in the simple circuit of the battery, switch, wire and capacitor meet the insulator in the capacitor, their journey is over. Or is it? If the battery polarity is reversed, the electrons would flow to the other plate. Now reversing the polarity again, they would go back to the first plate. An ammeter placed in the circuit would show current flowing as if it were going through the capacitor! Well, Elmer, does it or doesn't it? Elmer explained that the reversing of the battery polarity was similar to the behavior of AC. That is current going one way and then alternating (Alternating Current, remember?) and going the other way. So the answer is that a capacitor does allow AC to go through but blocks DC. A practical use is keeping DC out of your headset but allowing the AC signal (audio) to pass.

The other uses mentioned by Elmer were in timing and tank circuits. He will discuss this use in another article. Wow, Ima Lidd said. This theory isn't so difficult to understand after all. Elmer laughed and said if you understand how capacitors, inductors, resistors, electron tubes and semiconductors work, you will know all you need to know.

de Van, K3CP

CLUB AWARDS
by Barry, KU3X

The D.L.A.R.C. has two awards available to it's members. The first award that was offered is the Worked All States award. This was started on March 5, 1987. To getting things started, a plaque was offered to the first person who submitted the proper paper-work for that award. Ray Bilger, W3TDF, got the plaque and the first award. Since that time, there has been eleven other people that have received the award. The following are the rules for the W.A.S. award:

1. Log books must be used.
2. You must work all of the fifty states.
3. Six through one hundred and sixty meters are the bands that are permitted to use. NO REPEATERS !
4. No QSL cards are required.
5. A form that must be filled out is available. See either myself or Daryl, KA3MND.
6. The starting date was March 5, 1987 0000 GMT. No contacts before that time can be used.
7. You must be a member of the DLARC.

On February 5, 1988, the D.L.A.R.C. DX 100 AWARD was started. The first person that submitted the proper paper-work was William Goodman, K3ANS. Bill gave me his logs only thirty five days after the program was started. Not bad ! The following are the rules for the DX 100 award:

1. Log books must be used.
2. No QSL cards are required.
3. Six through one hundred and sixty meters are the bands that are permitted to use. NO REPEATERS !
4. You must work a minimum of one hundred different countries according to the A.R.R.L. countries list.
5. A form that must be filled out is available. It must be filled out in alphabetical order. See KU3X or KA3MND.
6. The starting date was February 5, 1988 0000 GMT. No contacts before that date can be used.
7. You must be a D.L.A.R.C. member.

Note: After working one hundred countries, there is an endorsement available for every additional fifty countries worked. After two hundred and fifty countries have been worked, the endorsement count will be set at twenty per endorsement.

You will find that going for these awards can be a lot more fun if a friend and you use a two meter simplex frequency. and work together to find the states or countries. Working one hundred countries is not as hard as you may think it is. As of March 30,1989, Rick Seager, K3OO has worked two hundred countries with only using two watts output from his station. That is 17 db down from 100 watts. Not too bad !

AWARDS TO DATE:

W.A.S.: W3TDF,KU3X,KA3MND,KA3EED,W3RYE, - WB3HBR,K3ANS,K3OO/QRP, WA3RSQ,NQ3D, and K3EX. W3TDF also has a W.A.S. award for the ten meter band.

D.X. 100 : K3ANS,K3OO/QRP(200 countries),- WB3CTR,KA3MND (150 countries),AJ3H,AE3T,- K3NZ(all 10 meter/ssb),KU3X, and WB2P (250 countries). Good luck and good hunting.

de Barry, KU3X

****

FOR SALE

Commodore graphic 1520, Commodore Data Cassette CN2, Vic Programs, Expansion board to make Vic 20 expandable to 28K. Johnson Viking phone patch. Johnson Viking phone patch. All with documentation. Make reasonable offer to WA3ENE, Les at 253-8584.

****

WISHFUL THINKING

CUSTOM COMPUTER..Designed to answer calls, check for dupes, enter in log, make out QSL, and give consecutive serial numbers or programmed data, all automatically. Will search and pounce when QSO rate drops on CQs, change bands when a band goes dead. Monitors spectrum analyzer for band with greatest activity, seeks out new multipliers automatically. Contester's dream,. Enjoy yourself fishing or golfing on contest weekends. Prove to your neighbors that your are not causing TVI...Don't call W3PYF.

"dB or not dB - That is the question"

by Joel, K9TBD, Digital Editor

The question really is - Why do engineers use the decibel - instead of just using plain numbers. The answer has numerous parts - the primary reasons for using the dB is to express very large numbers and very small numbers easily - another reason is - if you have to figure out system gains (losses) say from your exciter to you amplifier to your transmission line to your antenna, the gains are multiplied (divided) but dB's only have to be added. Let's just assume it is a convenient way to express numbers - now let's get on to a little clarification.

A dB is defined as a logarithmic function of a ratio (instead of the ratio itself). This implies that there is a reference - (there are many references so be sure to specify your reference when using dB). The standard references are: a voltage or a power level. For instance, when you wish to talk about circuit gains you usually start with a voltage reference, whereas when you talk about telephone circuits the reference is say one milli-watt with a reference resistance of 600 Ohms. The following is the definition of dB in terms of voltage ratios and power levels:

dB = 20 log (V2/V1) and dB = 10 log (P2/P1) where log is base 10.

Working these formulae backwards (which we want to do from time to time).

V2/V1 = 10**(dB/20) and P2/P1 = 10**(dB/10) (** means exponentiation).

If your calculator does not have a log to the base 10 but only a log to the base (e) (called ln) then the relationship to each other is: log(X) = ln(X)/ln(10). A short table of common dB and voltage ratios follows:

-80	1/10000	-24	1/16
-60	1/1000	-18	1/8
-40	1/100	-12	1/4
-20	1/10	-6	1/2
0	1/1	0	1/1
20	10/1	6	2/1
40	100/1	12	4/1
60	1000/1	18	8/1
80	10000/1	24	16/1

Reading this table: 20 dB says that you have multiplied your voltage by a factor of ten and 6 dB says that you have doubled your voltage. Since power (in dB) is half that of voltage - you can deduce that doubling your power is equivalent to an increase of 3 dB. Here is an example.

Suppose that you have checked your touch tone pad with your two meter radio and found that the high tones have too much gain. You want to make a little circuit to attenuate the high tones and decide that a simple one pole lowpass filter will suffice. In words, the tone pad will be attached to a series resistor, the output end of which is shunted to ground with a capacitor and the new (filtered) output will be taken from the junction of the resistor and capacitor. The complex gain equation is Vo/Vi = 1/(1 + j W/Wo) where W is the radian frequency and Wo is the corner radian frequency which is 1/RC - the reciprocal of the RC time constant. Remember what the relationship to Hertz is from radian frequency? Maybe a 2*PI in there somewhere. Maybe you can see if W << Wo (Omega is much much less than Omega Naught) then Vo/Vi is approximately 1: if W >> Wo then Vo/Vi is close to 1/ (j W/Wo) which shows a 90 degree phase shift lagging with a reduction of gain by the ratio of Wo/W.

In ratios, these computations become cumbersome, however if we express the gains (losses) in terms of dB then we get 20 log (1 / sqrt (1 + (W/Wo)**2) which is -10 log (1 + (W/Wo)**2). Check this out for yourself. You can get your calculator out and figure some of these - but referring to the table above it is a simple matter to see that the dB (vertical) vs frequency (horizontal) plot can be constructed by hand as follows:

This is a low-pass filter and with piece wise linear approximations (in dB) the signal has zero dB gain (loss) until the corner frequency called (Wo), at which point the signal starts to drop off at a rate (linear in dB vs log frequency) of 6 dB per octave (x2) or 20 dB per decade(x10). Right at the corner frequency (Wo) the gain is down by 3 dB (ratio of .707).

Long story short, knowing that this is a single pole (only one energy storing device, the capacitor) you can plot the frequency response curve by inspection, and the line are straight lines in dB vs log frequency.

(continued next page)

PLAN AHEAD FOR TROUBLE

by Dewi, N3FNW

My experiences with lightning over the years, six hits in the past two years alone, three of them within a minute and a half of each other prompt me to make the following suggestions: When storms approach Disconnect all 'Hi-Tech' stuff (ham gear, TV sets, Stereo equipment, computers etc.). This includes all antennas and cables. I installed quick disconnect adapters for the cable TV lines. Disconnect telephone modems attached to your computers, I fried a mother board and a modem a couple years ago. Turn dimmer switches and digital timer switches to the 'off' position, these things are appetizers for lightning. I even do this when the house will be unattended for more than a couple hours during the vulnerable season. All of this should take less than five minutes, but if you consider the effort required to replace or repair damaged equipment it is five minutes well spent. Have a lightning arrester installed at the circuit breaker panel or fuse box.

If you have small children, a spouse or pets they will watch your reaction to the pending situation. If you display panic it will be contagious so keep cool. Have a pre-arranged plan including several routes for evacuation should it become necessary. Avoid using windows or doors that can put you in contact with any wires or cables including ground and guying wires. Pre-arrange a safe assembly area away from utility poles and trees, possibly a neighbors front porch. You can use this plan in case of fire.

When help arrives, (fire or police) tell them immediately the status of the occupants including pets and their 'safe havens'. Inform them of any hazardous materials (ammunition, solvents etc.) stored on the premises and their location. Then get out of the way but let them know where you are staying.

de Dewi, N3FNW

This article includes some stuff that resulted from a study that Dewi participated in a few years ago. He took part in the preparation of an instruction sheet aimed at hotel fires. Ida and I were in such a situation in Las Vegas and He was inspired to work on a plan for hotel safety. His research took him to L.A., N.Y. and Phila. The few suggestions for Residential evacuation were a part of the 'bonus'. He was also involved in setting up a program using the acronym "EDITH" which converts to "Exit Drills In The Home" back in 1960 for the Boy Scout program. It is still in use today.

de W3PYF, Editor

****

"db or not db"

(continued from preceding page)

by Joel, K9TBD

Try plotting this on linear vs linear scales, you have to do a lot of computation and the curve is really a curve and not straight lines.

How is your S-meter calibrated in (dB or linear) how about your ears are they linear or logarithmic? Does your dog bark woof-roof (I want dog Biscuits)...73's Joel ..... "Whaddl-dB"..for you?

****

HAM RADIO DICTIONARY

Dipole	Very sick tadpole
Ohm	Where a British Ham lives
Volts	What a politician needs to get elected.
Inductor	Drafting a woman into the army
Resistor	What a man should do if attacted by a female.
Antenna	Uncle Joe's wife.
Photomultiplier	Person who makes double exposures.
Henry	A guy who's wound up.
Microhenry	A little guy who's wound up
Dummy Load	A truck full of mannequins
LED	A lid with an extra class license.
Yagi Boom	Explosion in JA land.
Log Periodic	Sawmill feed
Noise Figure	Comment about Miss America
Load Line	Freight Railroad
FET	New French Island prefix
Solid State	KL7 in December
Feedback	Letter to the editor
Transformer Oil	Beauty Aid

Thanks to KO3M for this dictionary

****

YANKEE DOODLING

PA QSO PARTY-1989

Well, the dust has settled, the DX-peditions have returned from the wilds, and the '89 PA QSO Party is history. I've never before heard so much activity from DLARC, or the rest of the state either! Judging from the comments which I heard, everybody who tried contest operating had a great time and learned something, too. **The most important thing now is to fill out your summary sheet and submit your log. Every entry is important in the club aggregate effort. Even one point could decide the difference between the # 1 and # 2 club in Pa.** Here are some hints for filling out your log and determining your score.

DON'T FORGET EPA & WPA

When you work stations in state, you get a county multiplier for each county worked. But you also get multipliers for both EPA & WPA sections. This can make a big difference in score for some of the guys who worked 2-M FM mobile. For example, if you worked W3PYF in NHA (Northampton) for your #1, you claim NHA and EPA as multipliers.

MULTI-COUNTY OPERATIONS

There were several stations operating from a location right on a county line. They didn't gain any special benefit, but you did if you worked any. Example: a station operating from the LYC/UNI/SNY (Lycoming, Union, Snyder county line was good for 3 multipliers if you hadn't worked any of these counties before. If you had already worked LYC, he was only good for the other 2 counties. Sort of a 2 or 3 for one sale!)

COMPUTER DUPING

Many of us like to use a computer to check for duplicate contacts, that is, stations worked twice on the same band/mode. [If you claim two contacts with the same station on the same band/mode you loose credit for one contact, and an additional 100 points are deducted from your score as a penalty] AN EXCEPTION TO DUPLICATES IS MOBILE STATIONS WHICH CAN BE WORKED ONCE FROM EACH COUNTY. The question is how to enter these into the computer so that second and third LEGAL contacts aren't rejected. I've found one solution, maybe you have a better way. When I enter a mobile, I suffix his call with "**/ cty** " . For example: K8HVT/DAU, K8HVT/MIF, K8HVT/JUN. The computer recognizes each of these as a "unique" and accepts and sorts it.

DUH, WHAT'S AN ARRL SECTION?

Did you have that experience during the contest? I noticed it a lot--especially on 10 M with western stations. In those cases I asked for the station's county. You can then look up the ARRL section in the ARRL Operating Manual. In case you don't have one, I'll make sure to bring one to the next club meeting--or "see me" on the radio. If you didn't get the county, it's harder, but not impossible. Check the guy in the callbook, and from his address, determine his county from an Atlas or road map. This seemed to be a problem with Texas and California stations, mostly, so there shouldn't be too many to look up.

SO HOW DID WE DO?

We really won't know for sure till the results come out next spring, but I know DLARC stations were making a lot of noise from NHA; LEH; MOE; PIK; LUZ; ELK; BUX; BER; CAR; and CMB. Special thanks to the DX-pedition teams who activated Cambria (W3TDF), Pike (KA3OEG and his able assistants KC3QO and K3NZ) and ELK (N3IK). Did we win--I hope so! Did we have fun--I know so!

THANKS!

Speaking for all of the recently elected or re-elected officers and directors of DLARC, thanks for your trust and support in the recent nomination and election. Returning so many of us to the same positions means that we have to work harder for you next year--after all, we're supposed to know our jobs now!

THE SYMPATHY OF DLARC

is extended to Tony WB2P (ex-K3ZUF) on the recent sudden and accidental loss of his father in an accident. Tony, we share your loss! Although it's too late for Tony, Sr., remember to THINK SAFETY! It only takes a second to loose a hand, and eye, or a life.

Also, after the last meeting , one of our newer members, Doc, K3VUM fell the parking lot and ended up with a broken arm and 5 stitches over his left eye. Doc, get well soon! Another reminder for all of us to be careful.

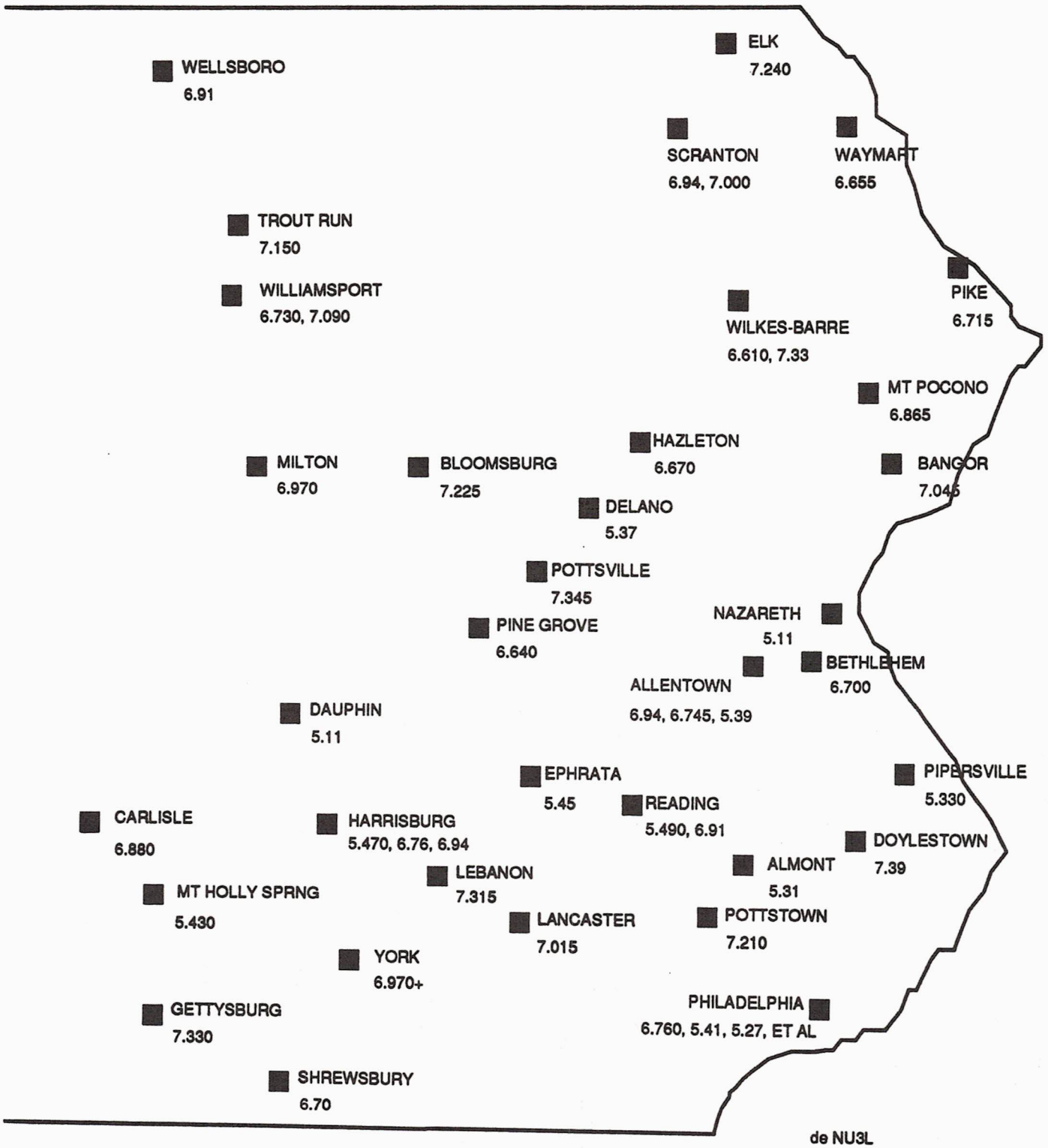
BRING YOUR QSO PARTY LOGS TO THE NOVEMBER MEETING!

11/89 **73 de K3YD**

MAJOR EASTERN PENNSYLVANIA

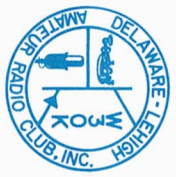
2 METER REPEATERS

STANDARD OFFSET UNLESS NOTED



de NU3L





THE DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC.

NEWS

RD #4
GREYSTONE BUILDING
NAZARETH, PA
18064

N3EYT



All Amateur Radio Operators are invited to participate in the DLARC, 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.

****

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

****

1990

CLUB OFFICERS

President - Clarence Snyder.....W3PYF..252-2109
Vice President - Ray Bilger.....W3TDF..346-7313
Secretary - David Blankenship....N3EYT..868-1559
Treasurer - Roy Buss.....KA3MNY.759-2674

****

BOARD OF DIRECTORS

Blair Bates.....K3YD...865-0687
Rivo Bartolocci.....W2SPK..454-5028
Bill Goodman.....K3ANS..258-5063
Tony Lazzara.....N3CVH..253-2161
Bob Kratz.....KU3K...866-5879

****

NEWS STAFF

Editor - Clarence Snyder.....W3PYF..252-2109
Circulation - Dick Peischl.....KC3CR..759-0294
Digital Editor - Joel Elston.....K9TBD..252-1515
Yankee Doodlings - Blair Bates...K3YD...865-0687
Mailing List - Robert Mulrooney..KB3RI..253-7710
Printer - Norm Zoltack.....K3NZ...799-4044

****

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

****

Any comments or articles contributed to this newsletter should be addressed to
CLARENCE SNYDER W3PYF, Editor
717 PORTER STREET
EASTON, PA 18042-1548