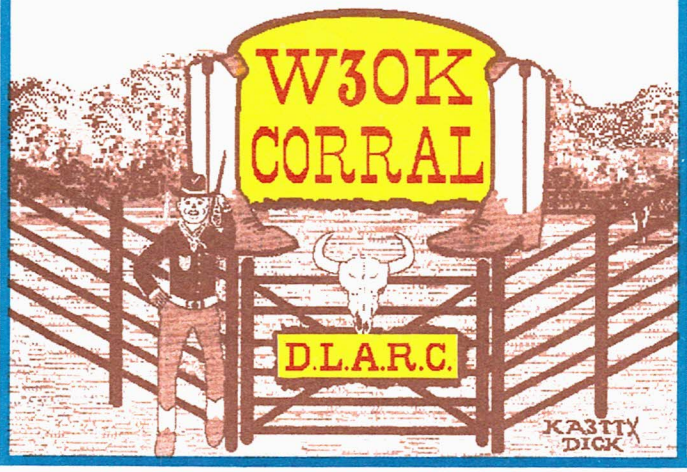
DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC. W3OK

November 1991



SPECIAL SERVICE CLUB
ARRL Affiliated Club

THE PARTY'S OVER

KU3K KONDUCTS KONNECTOR KLASS!

by Bill K3ANS
Program Chairman DLARC

The Program for the November Meeting of the DLARC which will be held in KIVA HALL at the Northampton County Community College will feature Bob, KU3K and a discussion, with a practical demonstration, on coaxial cable connectors and how to properly install them. The discussion will center around different sizes of coax and connectors and the proper tools necessary to perform "good" surgery!

Practical "how to" demonstrations will follow using the famous PL-259, BNC and Hardline 'N' connectors. If you are timid about soldering in general and especially concerning your RF connections, please plan to attend and pick up pointers on everything from soldering to what type coax you "shouldn't" buy!

Bob brings 20 years experience as a broadcast engineer with WLEV-WEST to this DLARC program. The Kratz Konnector Klass...November 7th.

****

CHRISTMAS CITY STATION COMING UP

On December 21st and 22nd the DLARC will again run the Christmas City stations for Nazareth and Bethlehem.

Bob, WF3H is preparing the program and is looking for operators for this big service program. In addition to the Christmas City station, it is the 250th anniversary of the city of Bethlehem. It will be publicized in the amateur publications. Operators will receive a certificate well as those who qsl us.

Operation will be from the club station, W3OK and it is important that the station stays on the air for the entire time.

****

THIS MEETING WILL BE ON NOVEMBER 7th
KIVA HALL IS THE LOCATION OF THIS MEETING.
TALK IN ON 146.70

NEW OFFICERS FOR COMING YEAR

New officers who will lead your club for coming year were elected at the meeting in October. They include the following:

President: Robin Mosely, WA3T
Vice President: Ann Keiser, KO3M
Secretary: David Blankenship, N3EYT
Treasurer: Richard Dech, KA3MOU
Board of Directors:
William Goodman, K3ANS
Robert Kratz, KU3K
John Holmes, N3IGA
Norman Daniels, N3GXW
Clarence Snyder, W3PYF
Raymond Bilger, W3TDF

****

PA QSO PARTY A DONE DEED

by Clarence, W3PYF

Well it is all done, the 1991 PA QSO party is over and now we are counting our scores.

It was a good weekend with propagation doing very well, BUT where were the big numbers of operators we had last year? As I checked the scores and tried to get this story together for this issue, I was amazed at the difference in the numbers who participated.

Last year we had about 65 involved and this year only about 25..Big difference. Looks as though the score will approximate 1,900,000 pts, and that is less than last year, but over the score in 1989. Bill, K3ANS again led the parade and in the next issue in December we will run a wrap up of the full results as reported.

QSO PARTY chairman, W3TDF found the grass very green in Greene County. W2CCE was in Bradford County. N3IK was in Elk County, and N3GXW was in Lycoming Cty helping by going to less populated counties.

REMEMBER THAT THE DLARC NETS ARE ON 146.70 ON SUNDAY @9:30am AND WEDNESDAY @7:00pm

JUST THE MINUTES
by Dave, N3EYT

The October meeting of the DLARC was called to order by Ray, W3TDF, at 7:33 p.m. A total of 67 members and guests attended the meeting held in Northampton Hall on the NCACC campus.

The reading of the minutes of the September meeting were waived and accepted as printed in the W3OK Corral.

Dick, KA3MOU, gave the treasurer's report, indicating a balance of $3368.58 as of September 31st, 1991.

The DLARC welcomes Michael Lindenmuth, N3KIS as our newest member.

Clarence, W3PYF, editor called for club members to submit articles of interest to the Amateur community to be published in the W3OK CORRAL. Please contact W3PYF with any questions and to submit articles by the 10th of the month to appear in the following month's newsletter.

Arnie, K3INV, will be honored at the State Theater in Easton on October 25th. Keep your eyes open for ARRL election ballots for the Atlantic Division. Please remember to complete the ballot and return it to ARRL HQ in the appropriate envelope.

Brief two-minute introductions by nomoniees for club offices and board members preceeded the election. See the election results elsewhere in this newsletter. A discussion about the DLARC, who we are and where we are going took place. The topic of a hamfest in the Lehigh Valley was introduced and some interest was shown.

The Emmaus halloween parade on October 19th needs five operators to help with communication and security. Carl, KA3TEQ, called for volunteers to help with the parade. The PAQSO was the topic of the evening. Ray, W3TDF read an interesting letter, from an unknown club, about how to defeat the DLARC in this year's QSO Party. We are not sure who authored the letter, but it did provide some laughs for those attending the meeting. Tips on how to 'do' the PAQSO were offered by K3YD, K3ANS, KO3M, W3TDF and K3OO.

Robin, WA3T, assumed the office of president and briefly addressed the members at the meeting. One last thought: the fundraiser for the club is still undecided. What prizes do we wnat to offer? Any ideas, contact one of the club officers.

Thanks, de N3EYT, Secretary

FOR SALE

BLUE CHIP PRINTER..Model D-12-10. Daisy Wheel printer with Manual..$150.00
TRAM AUTOMATIC SWR/POWER METER. Range 20-200-2000 Watts. Used only once on 1 Field Day. ....$45.00 Call Harry, KD3BE at 717 481-7089.

****

LETTER TO THE EDITOR

I want to thank all the members of the DLARC for the opportunity to run for vice president. The club will be served well by the new President, Robin, WA3T, Ann, KO3M, Vice-President, and the new members of the board. I look forward to giving whatever assistance I can offer to the club and the new officers. Once again, thanks to all the members of the DLARC.

de Bob, WF3H

****

DLARC MEMBERS TALK TO CUB SCOUTS

Responding to a request to the Delaware Lehigh Amateur Radio Club, Beorn, N3KAQ, and Bob, WF3H, gave a demonstration of ham radio to a group of 30 Cub Scouts at the Governor Wolf school in Bethlehem on October 11th.

The program consisted of a short introduction to ham radio by Bob, followed by a TWO meter demo conducted by Beorn. The scouts had a chance to hear Dick, KA3MOU describe mobile operation, and Bill, K3ANS detail his operation.

The high point came when one of the scouts was invited to speak to Bill on the DLARC repeater. A Q&A session was held, and the scouts were very interested in a variety of topics. Beorn described his own homebrew antennas, QSL cards, and DXing. A sign up sheet was passed, and about 10 scouts signed up for information on next spring's novice - tech classes. A field trip is also planned to the club station to give the scouts an idea of HF/VHF operation.

FOR INFORMATION ABOUT CLUB ACTIVITIES CALL

DLARC INFO LINE

820-9110

IMA LIDD

Filters Part 2

by Van K3CP

"Hi Elmer," said Ima Lidd. "Do you remember the last time we got together you said we would continue our discussion on filters?"

"Yes, I do, Ima", replied Elmer. "I would like to discuss the ways filters can be used. We all know of their use as low pass filters in our high frequency (HF) antenna lead-ins and as high pass filters in the TV lead-ins. Many times we use them in this manner and they don't solve the problem of interference and we blame the filters. We think they are not doing their job. That is just not the case. Most filters available for this purpose today are very good. I would like you to try an experiment - one that I have tried. The experiment is to simply reverse the role of the low pass filter. Take the low pass filter out of the HF lead in and put it in the TV lead in. You may have to make a 'tweenie' to convert to the proper connectors. When you have it inserted, turn on the TV and I guarantee that you will not get a picture."

Ima interrupted, "I know why that is. It's because the low pass filter only passes frequencies below 30 Mhz. or so and the TV frequencies start at 54 Mhz and therefore are blocked by the filter. Am I right?"

"Yes you are, Ima," said Elmer. "You could also try the high pass filter in your HF lead in cable. You would have to take precautions so as not to exceed the power rating of the filter though. Therefore the reason that the filters appear to fail to cure the TVI problem is that the interference is getting into the TV by another path. It's just another example of failing to correctly identify the problem.

"Another case where filters seem to fail to do their job is when you try to by pass a circuit in which the signal path has a much lower impedance than that of the filter. Take a case where you were troubled by alternator whine on your mobile rig when the engine was running. Now, if you attempted to by pass the DC leads with a 10 mfd. capacitor to shunt the interference to ground you would find that it didn't help much."

"Yes, I know what you are talking about. I tried that once and didn't have much success. I didn't know what was wrong."

"Your problem was that the shunt to ground had a higher impedance than the circuit you were trying to bypass. Let's estimate that the whine had an average frequency (it would vary with the speed of the engine) of 500 Hz. According to Ohm's law for AC circuits the impedance of 100 mfds. at 500 Hz. is found by solving the formula **--- Xc = 1/6.28 FC --- 6.28 is 2 x Pi,** of course, the frequency is 500 Hz. and the capacity is .0001 farads. So it's 1 divided by (6.28 X 500 X .0001) and the answer is approximately 16 ohms. Notice that frequency is in hertz and capacity is in farads."

Ima said, "OK, so the shunt impedance is 16 ohms. That doesn't seem too high to me."

"Well it isn't, Ima, if you are trying to shunt a high impedance circuit. 16 ohms across 8000 ohms would certainly short out most of the interfering signal. But what is the impedance of the circuit with which we are working?"

Ima responded, "Let me see. What is the impedance of the power supply to the radio? I can use ohm's law for that. The voltage is 13.8 and the current for a 25 watt rig would be about 8 amps. That would result in an impedance of 1.75 ohms. Ah, I see what you mean. 16 ohms would not be much of a shunt to 1.75 ohms. Most of the interfering signal would continue to travel the lower impedance path to the radio. Very interesting, Elmer. Thank you for another good session."

"So long, Ima. See you next month. If you like we can design a filter that would be effective in getting rid of alternator whine. Think about the problem in the meantime. We will be trying to provide a low impedance path (short circuit) for the AC signal to ground. We want as little of the alternator interference as possible to reach the transceiver by way of the power leads."

"I understand, Elmer. We want as close to a short circuit as we can get without shorting out the DC battery voltage. I'll work on it until we meet the next time."

de Van, K3CP

REMBEMBER JOIN THE ARRL!
KEEP AMATEUR RADIO ALIVE

NATIONAL INSTITUTE of STANDARDS & TECHNOLOGY
by Bob, W2CCE

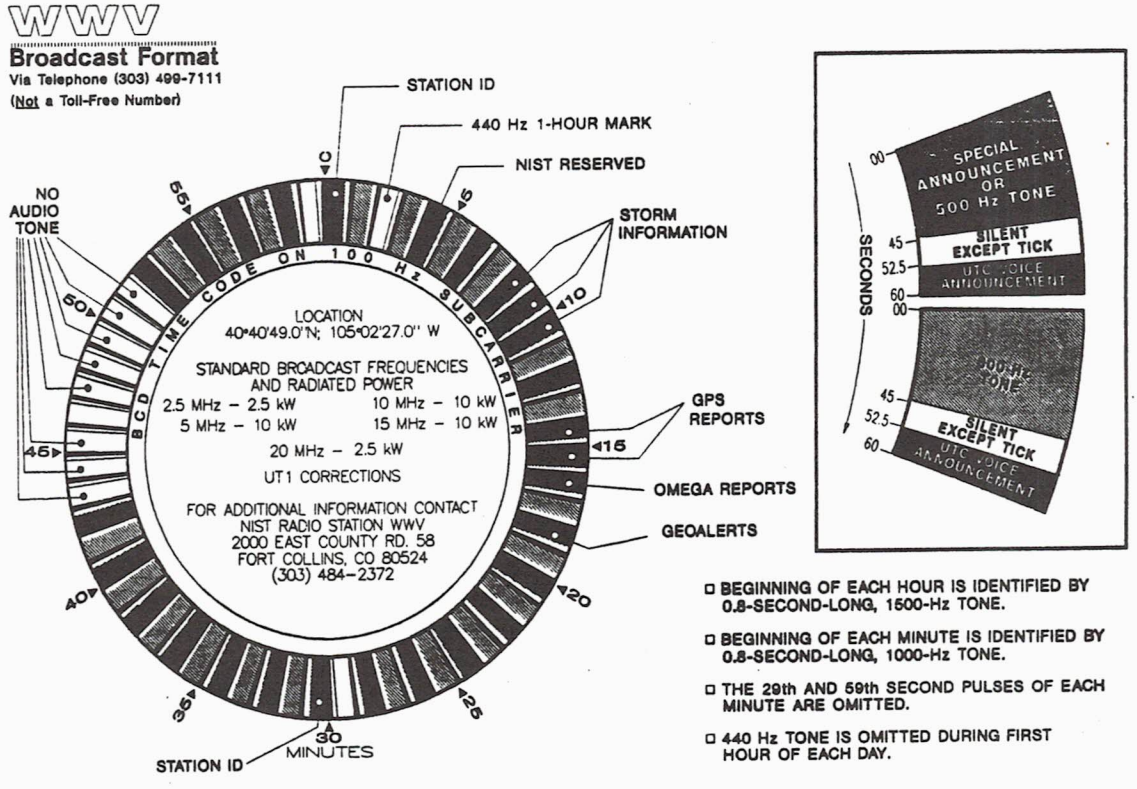
The transmissions of WWV, WWVH, and WWVB are used internationally for precise time signals but there is a great deal more information provided as illustrated in the diagram below. The format for WWV is shown and it is typical of the others.

The time signals are transmitted continuously but some of the most interesting info is contained in the announcements occurring in the first 20 minutes of each hour.

Of particular interest to radio amateurs are the "geoalerts" broadcast in the eighteenth minute. These geoalerts give the solar flux, the estimated A-index at Boulder, CO, and the Boulder K-index. These are followed by a short summary of the solar-terrestrial conditions for the last 24 hours plus optional information on current "events" such as solar flares. The report ends with the expected conditions for the next 24 hours. The above information is very helpful for the DXer since it contains the values of parameters crucial for long distance radio communications.

The higher the solar flux the higher the frequency which will be supported by "skip" resulting in long distance propagation. In "good times" the solar flux runs over 100 and has exceeded 200. The A & K indices refer to geomagnetic activity (disturbances of the earth's magnetic field). The A index is a 24 hour figure and can range from 0 to 400 or so. Quiet conditions (A less than 10) are desirable for good DX since that indicates low absorption. The K index is the closest thing to indicating current conditions so it is useful to find out what to expect right now. K's start at zero and go to 7 or more.

When K's are observed at 2, 3, or higher there will be increased absorption and DX will suffer. The above is not meant to be a primer on DX operation but a pointer to the value of WWV information. WWV is operated by NIST (National Institute of Standards and Technology) part of the U.S. Department of Commerce. A booklet on these services is available from NIST, 324 Broadway, Fort Collins, CO 80524 and is free of charge. All of the information services are described in detail. Further applications of the geoalert info as applied to ham radio is available from several sources including the ARRL.



IS THE CODE TOO TOUGH?

FIVE YEAR OLD PRE-SCHOOL GIRL BECOMES HAM

In April of 1991 Veronica Harrington of Long Beach, California passed the Amateur Radio Novice Class Examination and became a licensed Amateur Radio Operator, KC6TQR. Later she passed the Technician Class Examination. KC6TQR is 5-1/2 years old and entered First Grade in the Long Beach school system in September 1991.

She may be the youngest person in the world to become a licensed radio operator. Veronica's parents, Ann and Curt are HAMs. Her Dad is a patent attorney. Ronica observed her father operating his Amateur Radio equipment and told him she wanted to talk to other people using his radio station. Her father said she could do that as soon as she obtained her license. Ronica studied the complete bank of about 350 ONovice Class examination questions using the family computer as a learning aid. She reports that the code was easy but the theory was hard.

She is now studying for the General Class exam. She and her father are also learning the Japanese language. The above was taken from a tape of a four minute segment on the "Home" show on TV Channel 6 (Philadelphia), August 14, 1991. It is available for anyone who wants to see it. It might be helpful On neutralizing concerns of potential HAMs who believe the code is too difficult or the technical material is too incomprehensible for them to pass the exams.

N2LCR's comments: The tape was shown at the first session of the new Bellmawr (NJ) Novice class on September 24. Although the class welcomes those who wish to earn the no-code tech license and many had enrolled to get the no-code license, out of 56 students, only 1 is not trying the code. Hearing KC6TQR say that the code was easy (the theory was hard for her) may have had something to do with so many being willing to learn the code. .

73 de Bill/WA3SCW
ARRL MDC Bulletin Manager

****

OCTOBER VE SESSION

By Robin, WA3T

At the October VE session, eight candidates took a total of 13 elements. All gained at least one element credit, and there were three upgrades and three new Technicians...

Alfred P. Antonelli, Jr. N3KCO; Extra
Beorn B-W Sunflower, N3KAQ; Advanced
Richard A. Holmes, KA3FML; Technician (with code)

William J. Lamonde, Jr., Lee A. Larose and Philip A. Leone; new Technicians.

The VE's at this session were Bill, W3FYK; Chris, NU3L; Rick, K3OO; and Robin, WA3T. The next session will be at Gracedale on November 8th, and Team 3 will be in attendance.

****

HABITAT FOR HUMANITY

de Amy, KD3TI
Northampton County ARES coordinator

Sunday, October 6th dawned cold and grey, provoking most of us to question our outdoor plans. Weather forecasts for the afternoon looked better, so the Habitat for Humanity went ahead with their plans for a fund rasing bikeathon. This event featured a 10 mile,25 mile and a 50 mile route for participants with three refreshment stops.

Unlike the Wheelmen's Century ride a few weeks ago, participants in this event are generally NOT experienced bicycle tourists, which makes support and safety services even more crucial. There was a great disappointment that only three members showed up to help.

Operating from sag wagons, these dedicated people were on the road non-stop checking o the riders progress and ferrying supplies and volunteers where needed. Great big thanks to KA3YAT, Bob and KD3SQ, Chuck for their help. de Amy, KD3TI

ANSWERING MACHINE MANIA

HUSTON, TX (ARNS) The following is an actual message from an answering Machine:

"Hello you have reached the Jones household. Mary Jones took a short course to be a terrorist and her first assignment was to blow up a bus. She sustained serious burns on her lips from the hot tailpipe and can't answer the telephone."

de Huston Dateline Society for Technical Communications
Amateur Radio News Service

**** CONTEST CALENDAR ****
by Barry, KU3X

Nov. 8-10	Japan International SSB DX Contest
Nov. 9-10	WAEDC RTTY DX Contest
Nov. 11	W1AW Qualifying Run 10-60 WPM
Nov. 16-18	ARRL SSB Sweepstakes
Nov. 23-24	CQ WW CW DX Contest
Nov. 26	W1AW Qualifying Run 10-60 WPM

November 8-10 looks like an exciting weekend. Japan International Contest. This one is always fun to play in. Try your luck. Fifteen meters should be the hot band for that weekend. Who knows, you may even talk one of the JA's into sending you a copy of their CQ magazine. The size of that magazine will put ours to shame!

CQ WW CW DX Contest is the big one for this month. Dust off your CW key, check your antennas, and fire up the Big-A-Watt if you have one. Don't be afraid to enter this contest with low power. You will be surprised the countries that you will hear and work with just 100 watts output, or even with only 5 watts output to a triband antenna.

de Barry, KU3X

****

WOULD YOU LIKE TO BE A BROADCAST ENGINEER?
from the SBE

The Certification Committee of the Society of Broadcast Engineers (SBE) has approved the recognition of amateur radio activities for certification credits.

Persons holding a valid **Amateur Radio Extra Class** license who meet the service requirement for employment in the broadcast or broadcast related industries, will be awarded Broadcast Technologist Certification upon application.

This is in recognition that the current licensing requirements for this level of the Amateur Radio Service demonstrate technical proficiency on par with the old FCC Second and First Class license examination.

Certification information and application forms may be obtained from the SBE national office in Indianapolis at 317-253-1640. (From a September 13, 1991 SBE news release)

REMEMBER THIS MEETING ON NOVEMBER 7TH WILL BE HELD IN KIVA HALL ON THE NACC CAMPUS



from the QCWA Journal

LEHIGH WHEELMEN CONDUCT BANNER CENTURY RUN!
by Bob, KU3K

It all happened Sunday September 15, 1991 and several members of DLARC helped roll out the banner! Each year the Wheelmen, a club of local bicycle enthusiasts, hold this 100 mile bike rally which winds through the valley and into the Pocono mountain area.

This year over 400 bikers attended and under the watchful eyes of DLARC members KD3TI, KC3II, KC3CR, N3EBH, KA3TEQ & Marcia, KA3VAB, KA3YAT & KD3SQ any bikers in distress were attended to promptly.

This is a day long event starting about 7 AM and continuing until about 6 PM and most of these wonderful volunteers offered to "stay the day" if necessary!! Thank you all very much! I apologize if I missed anyone or got your call mixed up.

This event and the resultant radio club communication network was the dream of the late Herb Taylor, K3CIS who ran the radio operation for many years. The wheelmen look forward to our participation and have come to depend on our emergency communications expertise for this, their biggest event of the year! This is certainly part of what ham radio is all about!

de Bob, KU3K

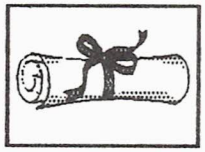
JOINING ARRL IS NOT JUST A SUBSCRIPTION TO A MAGAZINE JOIN NOW! CALL KA3MOU

AWARD INFORMATION

by Barry, KU3X
Chairman DLARC Awards Committee

For the benefit of newer members of DLARC the following will give you information on the awards given by DLARC to it's members.

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 paperwork for that award. Ray Bilger, W3TDF, got the plaque and the first award. Since that time, there has been numerous 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 me or Daryl Lettie, 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 member of the DLARC.***

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 8twenty 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 ! Good luck and good hunting.

de Barry,KU3X

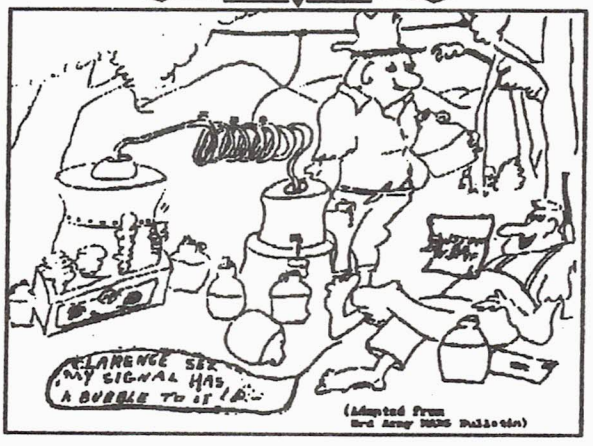
FOR SALE

From the estate of a silent key, the folloing is being offered. Call for prices:

Hallicrafters SX117 Receiver
Hallicrafters HT32 Transmitter
Johnson TR Switch
Low Pass Filter
D104 Microphone
All Band Vertical Antenna
Heath S Osc/scope
Capacitor Checker
R.F. Signal Generator

Call Don Tewell at 691-1285 or Work 694-7738.

de Bill N3BIB

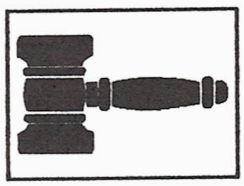


THE GAVEL SPEAKS
by Robin, WA3T

NOTES FROM A RECENT ARRIVAL...

I still haven't got used to the idea of being president of the DLARC. Bob, Clarence and Ray are hard acts to follow, and I know I can't top them.

Every president - every member - brings different strengths to the club. At the last club meeting someone expressed the hope that everyone present would be on the Board, sooner or later. That thought has stuck in my mind, because it exactly sums up how I see the DLARC.



We have a strong club, to the point where some folks outside the Lehigh Valley are jealous. But our strength is not in our size; it's in the extent to which each one of us participates in the club functions - it's in the encouragement and support we give each other.

There are many ways we can have fun while helping the club, our fellow ham, and the community. If you haven't ever written an article or a letter for the newsletter, think about it; Clarence is always looking for fresh material. How about taking part in one of our community service activities? Or field day, or the picnic? Or would you be willing to help organize or work for a Hamfest? Or be Elmer to a new ham? Or give a talk at the club meeting?

My point is NOT to jawbone everyone into participating in every club function. Jobs or other circumstances sometimes limit the time we can devote to ham radio. We differ in our interests and in our levels of enthusiasm for this hobby, and that's OK too.

The point IS that we should all feel welcome to participate in any club function. There are only a very few club functions in which participation is limited (for instance, we already have enough control operators for the repeater). Often jobs go begging. So don't be bashful: get involved. If you don't quite know how to get started, just ask!

One of our strengths is our diversity: from 8 to 80 (years, not meters!), from Novice to Extra, from homemaker to engineer, any ham can join the DLARC and find people with similar outlook, experience, knowledge and enthusiasm.

We all tend to make friendships with people who share the same values and interests as ourselves. This is normal. It's what brought us together in the club in the first place. Within the club, each of us tends to form a circle of friends we identify with. Our club is weakened if oldtimers appear to create walls around these natural groupings. At the same time, newcomers should not anticipate walls where there are none: newcomers as well as oldtimers have a part to play in maintaining the open atmosphere of the DLARC. There are no "us" versus "them", no "insiders" and "outsiders" in the DLARC, just US, so pitch in and share the activity; the work and the fun!

73 de Robin, WA3T

The PARTY IS OVER !
by Ray,W3TDF

Well, now that the PA-QSO Party is history, and until we hear the results of our continuing efforts, whats next? If you will recall, it was a long time until the results did finally come thru last year. SOooo, while we are waiting, how about a little surge forward in the ARRL-SS; CW Nov. 2, and/or Phone Nov. 16.

It's a lot like the PA Party, except there's a lot more people involved. No county multiplers, only ARRL/CRRL Sections. No DX. You are only allowed to work 24 hours of the 30 hour period, and you are competing against others in EPA. Read page 103 in the Oct. QST.

I don't believe the DLARC has had any participation in this forray before, so lets give it some thought.

FOR SALE

Kenwood TS440S Tranciever; Kenwood AT-250 Antenna Tuner; and Kenwood PS50 Power Supply. Call Bob, N3HWN at 826-5509. Price $1100.00.

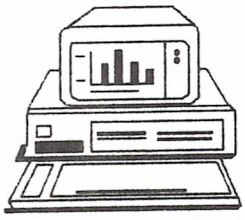
LOOKING FOR!

N3GWR J P is looking for 1 section of Rohn 25 tower..If you have one for sale. Call him at 987-3697.

DIGITAL COMMUNICATIONS
Hints and Kinks
by Joel, K9TBD

Here are a few hints and kinks regarding some aspects of digital communications.

1) Did you know, the number of "1's" sent in twelve (12) seconds is half your Morse code speed? Example: If you sent seven (7) one's (#1) in twelve seconds, your Morse speed is 7 x 2 = 14 WPM.



2) A common reference for audio work is zero (0) dBm {dB relative to a milliwat} at 600 Ohms. If you place an 8 Ohm to 1000 Ohm audio transformer in your speaker circuit {close to 4 Ohm to 600 Ohm} and put a standard VU {volume unit} meter on the 600 Ohm side, you will have a good way to set levels for your packet/AMTOR/Morse, etc decoder. Standard telephone injections (modems etc) is also at this level.

3) An 'L' or 'T' pad will dial up the level to your speaker without changing the load (level) for the rest of your audio system. I use this handy technique to listen to signals in the speaker until they are tuned in properly, then 'dial' the speaker audio down to reduce the annoyance factor.

4) If a Baud is close to the number of bits-per-second, and a character is close to ten (10) bits, then 1200 Baud is close to 120 characters per second. If a word is six (6) characters including the space, then 120 characters-per-second is about 20 words-per-second. But, 20 words-per-second is 1200 words-per-minute (WPM). Thus, a Baud rate is about the same as WPM.

5) An NPN and PNP transistors are up-side-down of one another. If you can't have one device - use the other, but, just swap the D.C. leads to make it work properly.

6) Baudot is a five level code {five (5) bits make a character}, AMTOR is a seven (7) level code, ASCII is a seven (7) or eight (8) level code, Morse is none of the above - What is it? What is the effective Baud rate of say a 20 WPM Morse signal.

7) Gain is a way to express the ratio of the output of a device (or circuit) to that of its input: Approximate examples: Transistor (50), Operational Amplifier (1,000,000), Photomultiplier (100,000,000 or so).

8) Constitutive laws are those fundamental relationships for the devices we use routinely. Resistor: V = I * R, Inductor: Phi = L * I, Capacitor Q = C * V. Sometimes, energy storage devices such as the inductor and capacitor are stated in terms of their 'rate of change' equation. Inductor: V = L * rate of change of current with respect to time, Capacitor: I = C * rate of change of voltage with respect to time. (V=voltage, I=current, R=resistance, L=inductance, C=capacitance, Phi=magnetic flux linkages).

9) Antennas are those things which take power from a transmitter and somehow 'mysteriously' make this juice go into the air. These waves may be electric or magnetic waves - or a combination of both. We usually name the polarization of a wave in terms of its electric component. For example, a vertical antenna has its electric wave component going up and down with respect to the ground. The electric and magnetic waves are at right angles to one-another thus the magnetic wave for the vertical antenna is parallel to the earth.

10) Practical vertical antenna: taken from Antennas and Propagation, IEEE, Feb 1991. Modified vertical 'Bazooka' with radials: Top section (1/4 wave), bottom section (1/5 wave), four radials (1/10 wave each) are set uniformly at right angles to the top/bottom sections and are located exactly at (1/40) wave below the feed point. This antenna a 50 Ohm match without any tuning devices and constructed like any other 'Bazooka' in that the feedline coax runs up the inside of the bottom section, the braid is soldered to the top of the bottom section and the center conductor is soldered to the bottom of the top section.

73 Joel, K9TBD

REMEMBER: THIS MEETING IN KIVA HALL AT THE NORTHAMPTON COUNTY COMMUNITY COLLEGE

All Amateur Radio Operators are invited to participate in the DLARC, RACES & ARES nets on 146.70 W3OK/rpt with an alternate of 145.11

The Nets are held on Sundays at 9:30 AM and on Wednesdays at 7:00 PM.

****

* DLARC INFORMATION LINE 820-9110 *

****

The W3OK CORRAL is published monthly and is the Official Publication of the Delaware-Lehigh Amateur Radio Club Inc.

****

1991

CLUB OFFICERS

President - Robin Mosely.....WA3T 215 820-0944
Vice President - Ann Keiser..KO3M 717.386-2797
Secretary - David Blankenship.N3EYT 215 974-8749
Treasurer - Richard Dech.....KA3MOU 215 837-1585

****

BOARD OF DIRECTORS

Bill Goodman.....K3ANS..258-5063
Robert Kratz.....KU3K...866-5879
Clarence Snyder.....W3PYF..252-2109
John Holmes.....N3IGA..837-7487
Norm Daniels.....N3GXW..262-8415
Ray Bilger.....W3TDF..346-7313

****

STAFF

Editor - Clarence Snyder.....W3PYF..252-2109
Technical Editor - Wm Van Horn..,K3CP...691-5979
Digital Editor - Joel Elston.....K9TBD..252-1515
Yankee Doodlings - Blair Bates...K3YD...865-0687
Circulation - Dick Peischl.....KC3CR..759-0294
Mailing List - Clarence Snyder...W3PYF..252-2109
Printer - Norm Zoltack.....K3NZ...799-4044

****

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 Northampton County Community College

TALK IN ON 146.70

****

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

CLARENCE SNYDER W3PYF, Editor
717 PORTER STREET
EASTON, PA 18042-1548

The W3OK CORRAL
RR 4 Greystone Building
Nazareth, Pennsylvania 18064-9211

DATED MATERIAL - PLEASE DO NOT DELAY

ROBERT A. GREEN KA3YAT
346 CREST DRIVE
WHITEHALL PA 18052-7204

BULK RATE
U.S. Postage Paid
LEHIGH VALLEY, PA
PERMIT No. 138