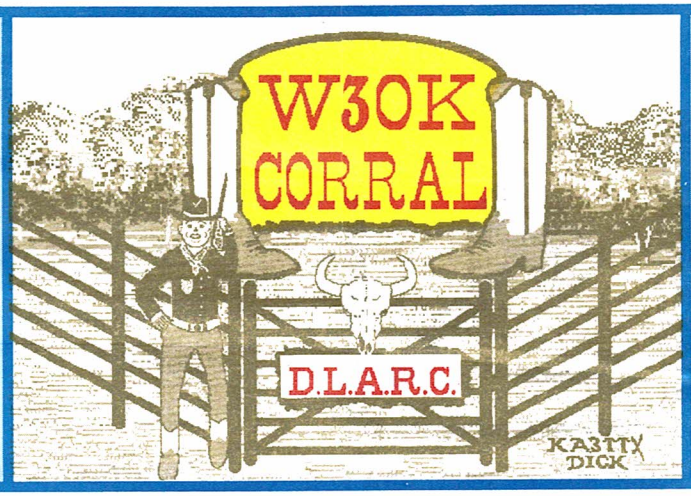
DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC. W3OK

September 1994



SPECIAL SERVICE CLUB
ARRL Affiliated Club

PA QSO PTY COMING UP OCT 8&9

Will the trophy stay with the DLARC?

de Ray W3TDF

DELAWARE-LEHIGH PA QSO PARTY Amateur Radio Club Inc

Can you get in a few hours on the weekend of October 8-9? It should be no problem for us to keep the Trophy, but we cannot let our guard down, like we did in 1991, when the Dauberville gang snuck (sneaked) in the back door. We let our complacency lull us into a stupor, (or is it STUPID?).

One of our important, high scoring participants has been Don(W3LR), who will not be with this year due to an assignment out west, and also we are losing Ike(N3IK), who has left the ranks of the DLARC, which leaves us with about 230,000 points short. How can we do it? We could ask Bill (K3ANS) to DOUBLE his score, which would just about do it, but virtually impossible. We could ask the 32 lowest scorers to each add 10K to last years entry! Would that be asking too much? Sooo, lets look at last years scores as listed and see if I haven't come up with a viable scheme!

K3ANS -203514 W3LR -181930 K3CP -130944

W3TDF -117366 K3NZ -100330 KU3K - 97808

KB3TS - 86803 N3MKZ - 66930 N3IGA - 58638

N3OWG - 55226 N3IK - 53132 WA3BRW- 50676

N3GLZ - 47382 N3GWR - 46624 WX3C - 46332

KO3M - 45448 WM3B - 42761 W2CCE - 36636

N3EBH - 30888 N3NLA - 27494 N3KWN - 24055

WC3Y - 23973 WA3IHX- 18662 N3OUC - 18638

N3GXW - 18560 WO4H - 18486 WU3M - 16544

N3MHW - 12480 W4YID - 11130 W3XM - 11109

KE3AW - 11092 NQ3D - 10659 K3GOX - 9625

WA3BOM- 8024 WA3HVR- 7936 KA3JWE- 6900

WD5BRP- 6922 NC3P - 5152 KC3QO - 4253.

KD3SQ - 4230 N3LXF - 3999 W3ECT - 3321

W3FVT - 3230 KD3YE - 2790 WA2TWS- 2576

KA3OEG- 2277 N3LAI - 1827 N3NVA - 1651

K3YD - 1620 N3EYT - 1484 N3NNI - 1275

K9TBD - 988 KU3X - 930 N3NXF - 652

N3LLL - 605 W3PYF - 143 N2MWQ - 90

It's difficult, when you scored above 100K to increase it appreciably. Sometimes you get a little more and then sometimes you drop back a little. However, we can all strive to increase our scores by the following suggested amounts.

Previous scores of 50K to 100K = increase by 10%

In the 30K to 50K group = increase by 20%

Last years 20K to 30K group = increase by 30%

In the group of 10K to 20K = try for 50%

2K to 10K group = Double it

The group under 2K = Triple it

If we could all accomplish this we would slightly over compensate for the expected loss. I realize that some may not be able to increase the suggested amount, but then there are others who will be able to do better than it. Hopefully it will balance out. plus we have a significant number who were not active last year, but who were active in previous years. Your help would be most welcome this year. Lets not allow Dauberville, or Erie, or Murgas, or any other Club take it away from us again.

At the September 1st meeting I'll be trying to answer questions and help old timers and newcomers with hints and tricks to help make logging, and/or contesting, a little easier. ***best Regards from the Tired Dirt Farmer..***

P.S. A little private contest could be very beneficial to the club, like, between N3NVA and N3LAI, or how about between WA3IHX, N3OUC, N3GXW and WO4H, or maybe a little match between N3GLZ and N3GWR...

The Prez Sez

de Bob, KE3AW



Since this September's column is being written in early August out of necessity of timelines, by the time it is received our Third Annual DLARC Hamfest will be in the history books. Hopefully it will be recorded as another success.

Likewise, our DLARC picnic will be past, and while this is being written in the heat for the summer, the days may be showing strong signs of the approach of autumn as you read it. But instead of looking at summer closing, look what's just ahead?

Are you a procrastinator? Or have you been putting off answering that question? September brings with it a strong reminder of the daytime becoming shorter. Have you been able to complete most, if not all, your summer amateur radio plans? Are there still things to be done before the ravages of winter strike again? Gee, weren't we shoveling snow just a short while back?

Don't procrastinate getting the hamfest goodies in place and the rig(s) and antenna(s) tuned and set up for the October 8-9 PAQSO Party. Even though the days are shorter, September is not only the ideal month to work in the equipment. It is also time for plans to be well on their way, if you plan to operate in the Party somewhere other than at home.

What are your plans? There is still time to make plans for the special location or a special effort for the PAQSO Party. Get that new antenna up, tuned, and operating, before October 8. Every score is needed.

In the meantime, remember to pull the plugs before late summer thunderstorm gets your station!

Remember the old PPPPPP. Proper Prior Planning Prevents Poor Performance. It also helps make the activities more enjoyable.

de Bob, KE3AW, president

When renewing or joining the ARRL contact Dick Dech, KA3MOU, Treasurer of DLARC. Any membership fees paid to him for ARRL benefits our club.

Contest Calendar

by Barry, KU3X, Contest Editor

Sep 3-4 All Asian DX Contest
LZ-DX Contest (CW only)
Michigan QRP Club Labor Day CW Sprint
Radio Club de Panama XXIII Anniversary Contest (SSB)

Sep 6 West Coast Qualifying Run, 10- 35 WPM

Sep 7-9 YLRL Howdy Days

Sep 10-12 ARRL September VHF QSO Party
W1AW Qualifying Run, 10-35 WPM
European DX Contest, SSB
North American Sprint, CW

Sep 17-18 ARRL 10-GHz Cumulative Contest
North American Sprint, SSB

Sep 20 W1AW Qualifying Run, 10-35 WPM

Sep 24-25 CQ WW RTTY DX Contest

Exchanges:

All Asian DX Contest: OM's = RST + age; YL's = RST + 00

LZ-DX contest: RST and ITU zone

Radio Club de Panama: RS and serial no.

VHF QSO Party: Grid square locator, RST optional

European DX Contest: RS, serial no. and state

CQ RTTY DX Contest: RST, state or VE area, and CQ zone

de Barry, KU3X

Wisdom Word # 142

You can't keep trouble from coming, but you need not give it a chair to sit on.

from the Happy Club, VE2BFG

Three in a row

If the month is September, it's time for the Lehigh Wheelmen Bicycle Club **CENTURY RUN**. This annual event is the longest (100 miles) and the largest attended (300 bikers) of the club's yearly events. The DLARC provides much needed and appreciated radio communications for this competition. The provided emergency communication was one of the first DLARC public services started by the late Herb Taylor K3CIS for the bicycle riders of the area.

The Wheelmen have come to rely on our club and it's expertise in this important communications link. A 100 mile bike-a-thon takes an entire day and we'll begin at 7 AM Sunday September 11 at Northampton County Community College and remain until the last biker crosses the finish line (usually around 5 PM). If you would like to HELP please call me by phone or on the .70 repeater...We would LOVE to have you join us! If you cant make it for the whole day, we can accommodate any schedule. C U THEN

Lehigh Wheelmen CENTURY RUN

Sunday Sept 11, 1994 7 AM–5 PM

Northampton County Community College

CONTACT: KU3K 866-5879 146.70

Habitat for Humanity Bike-a-thon

by Clarence, W3PYF

HABITAT FOR HUMANITY
Bike-A-Thon & Family Festival

We did it before and they want us to do it again. Habitat for Humanity will again run their annual Bike-a-thon on Sunday, September 25th at Dimmick Park in Hellertown.

According to Marlane Oren of Habitat, they have just finished three new houses in Allentown and have been given four more to renovate. In addition they are now building two new homes in Bethlehem.

Money raised from this event helps pay for the expenses involved. Their request to us is for opeators in 9 sag wagons one at each rest stop.

If you can help, please contact me, W3PYF and let me know...73 Clarence

MS Society Bike Sprint

by Bob, WF3H

Well, look what happens when you get a good reputation....you get invited back! The MS Society has asked for our assistance once morefor their Bike sprint to be held on **Sunday Oct 9.** It starts and ends at NCACC. Check in starts at 9 A.M., and the event will finish at 1:30 PM. Support will mostly be for road monitoring and safety. The total route takes 25 miles. We did an EXCELLENT job the last time, and the MS folks have truly come to depend on Hams as living up to the idea of being a community resource. This is a nice way to demonstrate our commitment for public support. If you would like to help, please contact me on W3PYF-3 BBS or on WF3H-3 or call me at 261-9137 or on 146.70. Thanks everyone! and look forward to seeing you there.

de Bob, WF3H

Novice/Tech Classes

by Chris, NU3L

Classes for the Novice/Technician licenses will be sponsored by The Delaware Lehigh Amateur Radio Club. Classes will be held on Monday evenings starting September 12, 1994 in Nazareth, PA. They are free and open to any prospective ham.

For a complete information package potential students should call the DLARC telephone answering machine at (610) 820-9110. After the messages are finished they should leave their name, complete address, phone number and a brief message.

Club meeting on September 1st will be held in different area of Northampton County Community College this month.

Ray Bilger W3TDF will speak on the PAQSO Party, tricks and nicks.

The meeting will be held in the West Plaza in the West College Center... Go up the steps at the Northampton Hall. Go across the overpass into the West Plaza. Talk in on 146.70 repeater if needed.

New media systems

Bell Atlantic update

By Joe Chuk, W3JD

The line between the cable and telephone industries continues to blur, as evidenced by some recent news about Bell Atlantic (BA).



A proposal made public in June described "video dial tone" (VDT) services that BA is planning for six major markets:northern NewJersey,Pittsburgh, Philadelphia, DelawareValley, Baltimore, Washington, DC,and Hampton Roads (VA).

Although a press release from BA used the phrases "advanced video and interactive multimedia" in describing the new services, it's clear that the company's primary goal for the present is to compete with the cable companies in the affected areas by providing traditional cable programming.

Larry Babbio, BA CEO, said that the company is "ready to take on the cable companies to win in the marketplace." This orientation to traditional cable television service is also made clear by the fact that only half of one of the six markets will initially have access to movies-on-demand and home shopping, two of the types of services commonly given as examples of interactive video.

In an obvious reference to a sore point in the cable industry's relationship with broadcasters in the wake of the 1992 Cable Act, BA noted that it will follow a "will carry" approach to local broadcast stations, providing transport for their programming without charge.

An early July decision by the FCC allowed BA to begin construction of the first network to put their VDT service into commercial operation. Although a number of VDT tests have been approved, this network in Dover Township, NJ, is the first commercial venture to be approved. It will serve 38,000 homes, and will compete directly with a system owned by Adelphia Cable Communications. Adelphia should be a worthy competitor for BA, since the cable company is just finishing a rebuild in the area that expands their system from 36 to 80 channels.

In addition to their VDT ventures, BA is expanding its wireless personal communication business. A late-June announcement by both BA and Nynex (the Baby Bell serving New York) revealed a plan for the two companies to merge their cellular phone operations to create a nationwide wireless network designed to match the strategies of AT&T and MCI, both of which are working on alliances to help them achieve national cellular coverage. Although the Baby Bells are currently limited to their own coverage areas for wired service, there is no similar restriction on wireless ventures.

de Joe, W3JD

N6NHG wanted by police

Kevin David Mitnick, N6NHG, of Van Nuys, California is reportedly on the run once again. Mitnick is the legendary computer hacker who first gained infamy for breaking into a Department of Defense computer in the 1980's.



CBS news reported on Monday, July 11th that authorities believe the thirty year old Mitnick has been using telecomputing to again breach the security of a number of heavily guarded computer and communications networks. These include computers used by Pacific Telephone and the California State Department of Motor Vehicles.

Police believe that Mitnick may possibly be trying to create a total new identity for himself. Authorities told the Los Angeles Times that Mitnick was last spotted at a shop in Studio City, California. They say he attempted to pick-up some fax'ed documents belonging to the Department of motor Vehicles.

When police moved in, they claim he threw the papers at them and ran. A warrant has been issued accusing Mitnick of violating his parole on a previous computer hacking conviction. One of the terms of his parole forbid him from using a computer for any illegal purpose.

from Amateur Radio newsline.133



Lightning Kills!!

by Stan, KB2LNI

The past several weeks have been stormy ones in our part of the country.Thunderstorm winds have knocked trees down on to homes and automobiles, causing hundreds of thousands of dollars in damage. Torrential rain has flooded streams, streets, and highways, causing additional damage and inconvenience. However, upto this point, the only thunderstorm fatalities have been the result of lightning.



Lightning is a powerful bolt of static electricity which occurs on our atmosphere. By definition, all thunderstorms contain lightning, and therefore can be deadly. It's caused by the rising and descending air currents within thunderstorm convection which has the effect of separating positive and negative charges. Since air is a good insulator of electric current, these charges are allowed to build to a very high voltage. At some point, however, the buildup of opposite charges becomes too great, and it overcomes the insulating properties of the atmosphere. The resulting discharge is what we see as lightning.

The flash is hot enough to heat the surrounding air to 50,000 degrees, and the rapid heating of the column of air produces a shock wave in the atmosphere which we hear as thunder.

Earlier this summer, four people were killed in New York by lightning during a five day period, including one person in the immediate Capital District. On average, 93 people are killed annually by lightning nationwide.

This makes lightning the second biggest thunderstorm killer, ahead of tornadoes which kill an average of 80 people annually, and behind flash flooding which claims an average of 140 lives annually.

Your chances of being struck by lightning are about 1 in 600,000. However, you can greatly reduce those odds by following a few common sense rules. The vast majority of lightning deaths occur to those outdoors. So logically, the thing to do is to go indoors when a thunderstorm approaches. Don't wait for the rain to begin because lightning can strike well in advance of the storm. If you can hear thunder or see lightning in the d istance, then it's time to seek shelter. Aviod using the telephone or other electrical appliances unless it's an emergency.

If you're caught away from shelter, you can get into your car. Although not the most ideal of places to be, it's still better than being outdoors. Be sure you're not touching any metal in the vehicle.

Here are a few other common sense rules:

1. If you're boating and a storm approaches, go to shore. Always have a NOAA Weather radio on hand.

2. Get out of swimming pools.

3. Get off and away from metal farm equipment or lawn tractors.

4. Avoid being the tallest object in an area, such as on a golf course or sports field. However, do not seek shelter under any tall, isolated object. If you feel your skin tingling or your hair stands on end, squat down, low to the ground, on the balls of your feet. Make yourself as small a target as possible.

Lightning is also no friend of the amateur radio operator. You should protect your equipment with the proper lightning suppression, surge protectors, and proper antenna grounding. If not, it would be best to turn off and unplug your euipment if a storm approaches.

de Stan, KB2LNI via N2AIG

Stan Levine is a meteorolgist at the Albany NY weather station, and provided the story above.

Past Field Day Scores - DLARC

by Ray, W3TDF

YEAR	CLASS	SCORE
1987	3A	5788
1988	?	?
1989	3A	7034
1990	4A	7782
1991	4A	8148
1992	4A	7922
1993	3A	* ? *
1994	3A	8738

Looks like 1994 was a banner year! 73 Ray

Computer cheats busted!



Employees of IBM, Phillips, the German Federal Interior Ministry and the Federal Office for the Protection of the Constitution are among those who unwittingly turned themselves in when a German computer software company resorted to an undercover strategy to find out who was using illegal copies of one of its programs.

Hundreds of customers accepted Cadsoft's offer of a free demonstration program that, unknown to them, searched their computer hard disks for illegal copies. Where the search was successful, a message appeared on the monitor screen inviting the customer to print out and return a voucher for a free handbook of the latest version of the program. However, instead of a handbook the users received a letter from the Bavarian-based software company's lawyers.

Since the demonstration program was distributed last June about 400 people have returned the voucher, which contained coded information about the type of computer and the version of the illegally copied Cadsoft program being used. Cadsoft is now seeking damages of at least DM 6,000 each from the illegal users.

Cadsoft's tactics are justified by manager Rudolf Hofer as a necessary defense against pirate copying. The company had experienced a 30% drop since 1991 in sales of its successful Eagle design program, which retails at DM 2,998. In contrast, demand for a DM 25 demo version, which Cadsoft offered with the handbook of the full version, had jumped, indicating that people were acquiring the program from other sources.

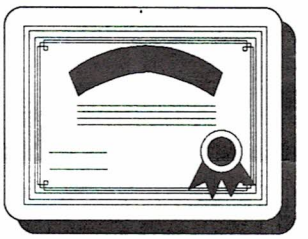
Although Cadsoft devised its plan with the help of lawyers, doubts have been raised about the legality of this type of computer detective work. In the case of government offices there is concern about data protection and official secrets. The search program may also have had side-effects that caused other files to be damaged or lost. Cadsoft is therefore preparing itself for what could be a long legal battle with some customers. So far it has reached out-of-court agreements with only about a quarter of those who incriminated themselves.

The preceding from The Westlink Report.

73 Chris KD3OA ARRL EPA Bulletin Manager

Extra Class Certificate

by Bob, W1YRC



Recently, and quite by accident, I learned that **ARRL** offers to all Extra Class amateurs a beautiful certificate, personalized with your name and call, complete with large gold seal. I presume it was created to augment the relatively blah impression delivered by the Gettysburg wallpaper which, although beautiful to receive after lots of work to earn and lots of waiting to get, is pale and lacks pizzazz in its bureaucratic style. You old timers received the large certificate upon your upgrade; but that hasn't been done for years.

Anyway, if you have a hole in your wall that needs covering and QSLs just aren't large enough, send a photocopy of your signed Extra Class license and $3 (a bargain) to: **ARRL Headquarters,**
c/o Irene Sapko,
225 Main St.
Newington, CT 06111.

If you are there on a working day, she will do it while you wait. Get one, you won't be sorry.

Dick, KA3MOU found this on a local packet bbs and sent it here.. Sounds Good...!!

Phone Patching

by Bob, WF3H

Well, the first question is, what is a phone patch? It isn't the thing you ring up on W3OK repeater to tell the OM that you'll be late coming home from the office! A phone patch is a small switch box that enables your HF rig to be connected to the phone system. You can then take a ham's signal coming into your shack, and turn it into a phone call. The ham can hear, and talk to the person on the other end.

How can it be used? Well, in the last few days, I ran a patch for a nursing nun needing supplies in Haiti, and, believe it or not, a military patch for a soldier unable to reach his HQ via the AUTOVON network! Other patches have given me a view of life that most folks don't get when exchanging signal reports and QTH's.

Most stations needing a patch are at sea, or in remote areas of the world where phone service isn't available. Ultimately the greatest enjoyment comes, as always, from placing ham radio at the service of the public. ***de Bob, WF3H***

Mad Scientist Qualifying Exam:

Exam Questions #2

submitted by Rich, N3NXF



If you recall, the Mad Scientist Qualifying Exam was an exam put together by high school science teachers to test students general science aptitude. I am running the test in 10 question installments, just for fun. This months installment includes all the test questions that deal with Earth Science topics.

11. What general rock type does cooling lava form ?

a. igneous **b.** metamorphic **c.** sedimentary d. composite

12. What type of coral reef surrounds a volcano that has eroded to below sea level ?

a. fringe **b.** barrier **c.** atoll **d.** no special name for this type of reef

13. What is a Barchan ?

a. a retreating glacier **b.** a crescent shaped sand dune **c.** a sea cave formed by wave action **d.** a columnar coral projection

14. James Hutton's theory that past geological processes can be understood by studying current geology is called:

a. Theory of Superposition **b.** Theory of Relative Age **c.** Theory of Unconformities **d.** Theory of Uniformitarianism

15. When several glaciers run (in different directions) off the same mountain, the resulting peak is called a:

a. Horn **b.** Circque **c.** Arete **d.** Horst

16. Which are the most dangerous type of earthquake waves ?

a. fast moving P waves b. "solid" traveling S waves c. slow L waves d. sharp D waves

17. Huge, moving walls of water caused by earthquakes are most properly called ?

a. Tidal waves **b.** Long shore currents **c.** Riptide **d.** Tsunami

18. The single land mass that once existed according to the Continental Drift theory, is called:

a. Panthalassa **b.** Pangaea **c.** Gondwanaland **d.** Laurasia

19. How much of salt water is actually salt ?

a. 5 % **b.** 3.5 % **c.** 50 % **d.** 35 %

20. The Mohorovicic Discontinuity is the boundary between:

a. Glacier and Terminal Moraine **b.** Continental Shelf and Slope **c.** Igneous and Sedimentary rock **d.** Earth's Crust and Mantle

Answers To Last Month's Questions:

1. a 2. c 3. d 4. c 5. b 6. b 7. a 8. c 9. d 10. c

Give yourself an extra point if you knew that the units for question 2 answers should not have included the word "light".

Answers to this test next month.

de Rich, N3NXF

Education

-- Education is not training but rather the process that equips you to entertain yourself, a friend and an idea. *Wallace Sterling*

-- While the right to talk may be the beginning of freedom, the necessity of listening is what makes that right important. *Walter Lippmann*

-- Man can learn a lot from fishing...when the fish are biting no problem in the world is big enough to be remembered. *O.A. Battista*

-- Kindess can become its own motive...We are made kind by being kind. *Eric Joffer*

-- Spring is God's way of saying...One more time! *Robert Orben*

--A signature always reveals a man's character...and sometimes even his name. *Evan Esar*

73 de Jose, KB4YPH

A memo to All DLARC

He who rows the boat has no time to rock it.

RFI Tips

Part 3

ARRL EMI/RFI Package - "RFI Tips"

Q: Wait a minute! I've heard that interference is usually not the fault of the amateur. If I haven't done anything wrong, why should I feel obligated to help?

A: Usually is the operative word. By helping him solve the problem, you'll be making a friend, not an enemy. What if, sometime in the future, you buy that new amplifier and start calling CQ when it;s third down at the goal line with 30 seconds left in the game. If you blitz your neighbor's TV, he may be more understanding and less likely to do something rash.

There are two basic things that can result in interference. Your transmitter may be emitting low-level signals outside the amateur bands. These signals, called harmonics or spurious emissions by the FCC (or spurs in common parlance), can be the direct cause of interference. FCC regulations are quite clear about spurious emissions: they must not cause interference to other services. The operator of a transmitter must take whatever steps are necessary to eliminate interference from this cause. This almost always involves additional filtering, grounding or shielding of the transmitting equipment.

On the other hand, the world is filled with radio signals. Any piece of consumer electronics equipment should be able to respond only to signals it is designed to receive. The filtering and shielding in your neighbor's TV (or other equipment), however, may be inadequate to reject your strong fundamental signal. This condition is commonly called fundamental overload. Interference that results from fundamental overload is really a no-fault situation.

Q: No-fault? That sounds like my auto-insurance policy.

A: Wow! There's a concept . . . EMI insurance! With all of the EMI in the world today, can you imagine the steep premiums you'd have to pay? Instead, let's consider the following scenario:

You, as an amateur, have purchased a transmitter that meets all of the FCC requirements for proper operation. You have installed it in a well-engineered station with proper grounding and filtering. You know your station is clean because you don't interfere with your own equipment. You have done nothing wrong.

The manufacturer of your neighbor's TV has designed and built the best possible product, constructed to meet hundreds of regulations set by dozens of federal regulatory agencies. The product has probably met a few voluntary standards set by independent associations as well. Within the constraints of the law, the manufacturer has done nothing wrong.

Your neighbor has gone to the electronics store and has purchased a piece of equipment that has a fine reputation for quality and service. He has every right to expect his equipment to function as advertised. Clearly, your neighbor has done nothing wrong. Even so, when he turns on his set and you go on the air, you both have an interference problem.

So who is at fault? It should be obvious that no single individual is to blame. Everyone has done everything correctly, but the system has failed!

de Dennis, WB2LGJ TC/EPA

Check the Fax

from the Westlink Report

Recently, the Anchorage FCC Office investigated two incidents where units of the same model of facsimile machine were the cause of false alarms to the search and rescue satellite system. In the first incident, a signal on the aircraft emergency frequency of 121.5 MHz was traced by a Coast Guard helicopter to the vicinity of an FM broadcast station. The station engineer borrowed some direction finding equipment from the Coast Guard and it pointed to his fax machine. Removing the power to the fax machine eliminated the interference.

The second signal interfering with the satellite was traced to the vicinity of a broadcast tower. Again the same manufacturer and model fax machine was responsible.

The preceding from The Westlink Report.

de Chris KD3OA

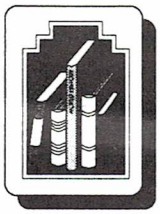
ARRL EPA Bulletin Manager

Bring a friend to the next DLARC meeting

Just the minutes

by Bob, N3OLH, Secretary

The August meeting of the Delaware-Lehigh Amateur Radio Club was called to order at 7:30 P.M. in Kiva Hall of Northampton County Community College on Thursday August 4, 1994 by Bob Green, KE3AW, the Club President.



Approximately 71 members and guests were present.

Bob informed the membership that tonight's 50/50 drawing will also give away various books and computer programs that the Club received from the estate of Bart, W2SPK.

Ed, W3APE, made a motion to approve the minutes of the July meeting as they were printed in the August Issue of the W3OK Corral. The motion was seconded by Vic, N3IQD, and was approved by the membership.

In the absence of the Treasurer, the Treasurer's Report was read by the Secretary, N3OLH. The report showed a cash balance of $1,702.24 at the end of July. Clarence, W3PYF, made a motion to accept the Report and the motion was seconded by Chuck, KD3SQ. The report was accepted.

The President read a letter that the DLARC received from Robin, WA3T, expressing thanks for the floral tribute sent in memory of his father Ken, G3HJN and for the many condolences he received from our members.

Membership applications were received from
Bonnie Adams-Cook, N3SWA;
George Busch, WA3MOJ;
Karen Gifford, N3SXF;
John Gilbert, N3SQV;
Peter Krohn, W3RJD;
Robert Prewitt, WB2INR;
Rocky Rampulla, N3SVZ,
David Roseman, N3SQE;
Melissa Ruggiero, Call Pending
James Woodhead, KA2ZQI

A motion to accept these applicants into membership was made by Ray, W3TDF and was seconded by Amy, KD3TI. The membership voted to accept these members, however, one negative vote was cast because all of the applicants were not present. The club welcomed the new members into the club. In addition, the President recognized all of the guests who were in attendance.

After a brief explanation of the DLARC 50 award, George, N3OWG, presented the first award to Bill, K3ANS.

Chris, NU3L, reported that a new series of Novice/Tech classes is scheduled to begin on Monday evening September 12 at Gracedale. Anyone interested in more information can get it by calling the DLARC information line at (610) 820-9110.

The Technical Committee Chairman, Tom, N3LLL, reported that the new repeater is being tested and that the 145.11 repeater has been worked on and it now provides better coverage.

Ray gave a heated message to the membership about repeater abuse and stated that he does not want our Club repeater to degenerate into a CB like medium. He asked that the members approve a policy that will allow someone who continually abuses the repeater to be disciplined or expelled from the club. The membership agreed.

The President reminded the members that our club has a history of providing service throughout the Lehigh Valley and if we are to remain a service organization all of our members need to help with our Club sponsored events.

Bill, K3ANS, gave a progress report on the up coming Club Hamfest to be held August 14 and had each committee chairman comment on his area.

Ray, W3TDF, reminded everyone that the PA QSO Party will be held on the weekend of October 8-9.

Clarence, W3PYF reported that the Derriere In The Delaware and the River Run were extremely successful and came off with only a few glitches.

Rich, N3NXF, and Brad, KA1RAH, spoke about the Canal Museum Special Event. (Note: a complete story was presented in the August Issue of the DLARC W3OK CORRAL)

The President informed the members that Bob, KA3WJF, is the official Club Historian/Librarian. Anyone who has any interesting historical information about the Club or its activities should please contact him.

Bob, KU3K, said that he needs help in providing communications for the Lehigh Wheelman's Century Ride to be held on September 11. Anyone who can help in this club sponsored event should please contact him.

The evening speaker Tom, N3LLL, who would speak about communications in the Petroleum Industry was introduced.

Van, K3CP, the chairman of the Nominating Committee, reminded the members that nominations for officers will made at the September meeting and that elections will be held at the October meeting.

The meeting was adjourned at 9:40 .

de N3OLH, Secretary

August 5 VE session

On Friday, August 5, 7 candidates took a total of 8 elements. There were 2 new Technicians and 1 new General.

Those included:

Richard Shevalier, N3NXF - General

Michael Rapeer, new Tech

Irvin W Ball Sr, new Tech

The VE's at this session were: Robin Moseley, WA3T; Bob Green, KE3AW; Bob Dickinson, KE3AW; Eddie Gigliotti, W3APE and John Greenage, WX3C team liaison.

de John, WX3C

Easton Hospital Run and Walk

August 7 was a beautiful morning for the Easton Hospital's annual event.

Operating on the newly repaired backup repeater, 145.11, all went well.

The weather and temperatures were perfect. Once again DLARC provided communications. There were no problems, and everything went smoothly. The race was over by 10 am.

The following participated in the event: Clarence, W3PYF; John, N3IGA; Brad, KA1RAH; Chuck, KD3SQ; Joe, W3JD; Carl, KA3TEQ with Marcia; John, N2MWQ, and riding in the ambulance was Amy, KD3TI. I want to thank all who volunteered their time and help to make this another successful event for which the DLARC furnished communications. ***de John, N3IGA***

For Sale

2 meter HTX 202 Hand Held Walkie Talkie plus two Cushcraft mobile antennas.

1 5/8 and 1 1/4 wave.
All like new. Asking $190. for the lot. If interested call Jim, N3EYJ @ 610 590-8123.

DLARC Hamfest 1994

We Succeeded

by Bill K3ANS, Chairman

I have no statistical or financial results yet, but at the end of a great hamfest day, I am tired and very pleased with our great hamfest party!

Dozens of DLARC members worked very hard in front and behind the scenes pulling off a social and ham radio success. Even if we break even we had fun working as a team, promoting DLARC and ham radio, meeting our neighboring hams, spending and earning money, selling and buying equipment and supplies, eating too much, and making DLARC even more cohesive than ever. Those big, long, and neat tailgating and parking rows looked beautiful! The busy indoor vendors were exciting to watch. I saw many smiles among the sellers, customers, and members. This teamwork will continue (before this article is published) in the DLARC picnic, more races, and of course winning another PA QSO Party. Full story will follow in the October W3OK Corral.

de Bill, K3ANS

FAR Scholarships awarded

The Maryland-based Foundation for Amateur Radio has announced the 1994 winners of the 50 college scholarships that it administers. The top, $2000 winner was Extra Class licensee Craig A. Gullickson, KC6CEX, 20, of Fresno, California.

Awarded a $1200 scholarship was 17-year -old Stefnee Lindberg, N0ONP, of Kansas City, Missouri, an Advanced Class licensee.

20 students received scholarships of $1000.

These scholarships are open to all radio amateurs meeting the qualifications and residence requirements of the various sponsors.

The non-profit Foundation represents more than 50 clubs in Maryland, Northern Virginia, and the District of Columbia.

For more information and application forms for 1995 scholarships contact FAR, 6903 Rhode Island Avenue, College Park, MD 20740.

Ima Lidd

Receivers

By Van, K3CP

Part 5



Continuing their discussion on radio receivers, Elmer reminded Ima Lidd that their last talk concluded with the IF (intermediate amplifier) operation. He thought it would be a good idea to review the makeup of the signal as it leaves the IF amplifier.

Elmer asked Ima Lidd, "Ima, do you know the nature of the received signal after it has passed through the RF amplifier, the first detector and the IF amplifier?"

"Yes, I think so. It is a radio frequency signal of a magnitude of up to several hundred microvolts or so. It has a frequency of 455 Khz. and it contains some form of audio. It contains music or voice modulation or Continuous Wave (CW)."

"That's very good", replied Elmer. "You are coming along just fine. Let me briefly retrace the process and explain how we got this far. The signal is amplified in the RF stage and here is where the image is rejected. The signal is now mixed (heterodyned) with the local oscillator and converted to the IF frequency which we will assume to be 455 Khz. It still contains any modulation that was present when it was transmitted.

"It's here in the IF stages that the AGC (Automatic Gain Control) voltage is developed. A portion of the signal voltage is rectified and amplified and fed back to the RF and IF stages in a way that reduces the gain of those stages. A strong signal will produce a greater voltage than a weak one and therefore will reduce the gain more than a weak one so that the output level tends to remain constant. In addition this reduction of a strong signal helps to minimize distortion caused by overloading the receiver. This AGC voltage is also used to drive the receiver's S meter. There is a lot of variation between receivers in the calibration of S meters. It is usually accepted that the difference between S units is 6 db and that an S 9 signal is in the range of 50 to 100 micro volts depending on the manufacturer."

"What change would be seen on the S meter if a station doubled its power"? asked Ima.

"Well," said Elmer, "a doubling of power would produce a 3 db increase in signal strength."

"Wait a minute," Ima said, "Does that mean that if I went from 100 watts to 200 the S meter at the other ham's receiver would only show one half of an S unit increase?"

"That's right and if you went from 100 watts to 1 KW, the increase would be 10 db or less than 2 S units."

"OK that makes sense when you stop and think about it." said Ima. "Let me ask a question that I've wondered about for a long time. What is the difference between intermediate frequency and radio frequency?"

"Good question, Ima," replied Elmer. "They are both RF, but IF is generally a fixed frequency and exists in the IF amplifier stages. Also, you will remember that they are both AC.

"In ham receivers the IFs can vary from 455 Khz. to 8 or 9 Mhz. or so. The lower IF lends itself to higher gain and more effective filtering while the higher ones are better for image rejection. Many modern receivers use two or three different IFs."

Elmer went on to explain that the signal now enters the second detector which determines whether the radio will receive AM, SSB, CW or FM according to the following table:-

1. AM - Simple diode
2. CW - Diode plus BFO (Beat Frequency Oscillator)
3. SSB - Product detector
4. FM - Discriminator or ratio detector

Elmer continued, "After detection and filtering the signal is now audio frequency (AF), which by the way is also AC. Next the audio amplifier amplifies it and then it goes to the speaker coil where the current causes the speaker cone to vibrate at the audio frequency and produce the sound we hear.

"I don't expect that you understood everything we talked about, but I hope you have learned something. It is important that you do some studying on your own and discuss the theory of operation with other hams. We have covered the operation of the most important stages of a modern day super heterodyne receiver."

Ima Lidd said, "You're right, Elmer, "I didn't understand all of what you said, but I surely know more than I did before. I appreciate these sessions and thank you for them."

de Van, K3CP

Don't forget PA QSO Party Program at the September 1st meeting of DLARC at NCCAC.

Meeting will be held in the West Plaza in the West College Center... Go up the steps at the Northampton Hall. Go across overpass to the meeting..

Remarks of a personal character

by George, N3OWG

OK I have done it. I have decided to succumb to the pressures applied and made a commitment to try and write a regular column for the OK Corral. And in small part perhaps try to have a soothing, mellowing effect on its editor. (Though I doubt this) These are my experiences and perceptions of what I see in Ham Radio. Now mind you my views tend to be skewed but those of you who know me will expect this as I am a skewed sort of fellow. Also I may tend to offend some of our more stalwart members. See I still have a notion that radio ought to be fun, but I know this tends to go against more traditional thinking. (Read "Old poop") So if you are one of the fellows holding up the stoic and austere walls of Ham Radio better watch out one of the top bricks is a little loose!



And with that

"Remarks of a personal character"

de N3OWG

Hamfesting with N3OWG or "How to buy a boat anchor and still live indoors"

Hams are certifiably insane. All of us are. And no matter how you will try to deny this fact you are too! I can prove it. Who among us has not risen up at 4:30 am to trek down to some distant athletic field just so that they might be first through the gate to peruse tables heaped high with the kind of treasures that can be found only at hamfests (junk)!

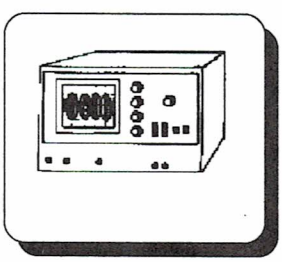
Now most sane rational folk unless they be employed by the local dairy are quite sound asleep at the pre dawn hours of a Saturday or Sunday morn. There are those who may argue that both fishermen and hunters get up mighty early on weekends, with that argument I rest my case "we are insane"

Lets have a look at the wonders to be found within the gates. Now I know that copious pages have been written concerning getting the best buy at a hamfest, and how to buy a really good second hand radio there. Enough that you could likely fill a set of encyclopedia covers with them. But alas they all are bunk. What we go to find at hamfests are the discarded diamonds and rubies of a thousand shacks. Things that are held up on national shack clean up day (That's when the wife says "Clean this mess up or your gonna live in the garage.") and its proud owner says "No I will not throw this away I will take it to a hamfest and sell it." And so he does. And there you are carefully looking over the assorted Thingamabobs and doojiggys. And haggling over the price.

Now if you really want to have a successful trip to a Hamfest ya gotta buy a boat anchor. Yup some truly god awful HUGE piece of gear at least 40 years obsolete. The bigger the better! I don't know where all those Hamurflux HZR 15s go to or what people do with them. (or for that matter what I should do with the one I bought) Seems to me that holding up planks to use as tables at a hamfest might be a good idea. Or perhaps as corner stones for good sized sky scrappers. But I do know that they are truly the best thing you can get at a hamfest. Albeit that I don't think your wife will agree.

Ah yes the little woman. Yikes stripes cant forget about the wife. They have a sixth sense about these things. I can hear her toe tapping from four blocks out. They get this look on there face that says "You are NOT bringing in that hunk of junk into the house!" No matter what level of pleading and begging you do only one set of words will placate her. "OK honey I will take some of my old stuff to the next hamfest and sell it." And so the cycle continues. There is one other option. You can convince her to get her own ticket. Mine did. And now she goes to Hamfests with me. Now the big question is what will we ever do with that bright yellow Gonset Communicator she bought?

No poignant dissertation of hamfestery would be complete with out a hats off bow to the food served there. Of all the committees involved with a hamfest the food people are amongst the hardest and longest working of the lot. I have no doubt that for any given Sunday morning hamfest that the coffee starts brewing sometime on Wednesday evening. The last show I was at I lucked into a last hour special on Burgers and Coffee. Took them right home and patched up several leaks in the roof where I had recently removed a tripod. It took me nearly a year to figure out what purpose the hot dogs but suddenly it came to me. If you slip one or two of them between the spaces of your vehicles springs you will instantly have enough additional buoyancy to haul home a Hamurflux, a Gonset and even a W.W.II surplus scope I just know I will fix one day.



So before the season ends common down to a Hamfest and let your insanity show a bit. Amongst all other things it is a great place to shake hands with the other assorted bolts and nuts on the bands. I'll be there. I am the one wearing the SPAM T-shirt haggling over the price of a broken microphone.

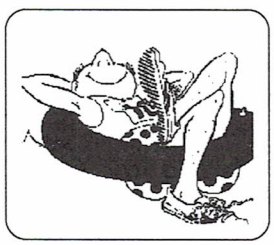
de George, N3OWG

Red Cross Summer Splash Success

by Clarence, W3PYF

In spite of a few difficulties, all went well in our safety watch at the Lehigh River Run and the Derriere in the Delaware on Sunday, August 26th.

With Amy, KD3TI as net control of the Lehigh River Run, and coordinated by Van, K3CP the following participated in the event: Bruce, KA3ONZ, Bob; KE3AW; Brad, KA1RAH; Jeff; N3QZT, John. N2MWQ,



With Dick, KA3MOU as coordinator and net control for the Derrière in the Delaware, from the Northampton County Communications van, he and Dave, N3HQE handled all problems and communications between our members, the Water Rescue people and the Red Cross Personnel.

The following members participated in the DID Dick, KA3MOU; Dave, N3HQE;, Bob, KE3AW; Bob, N3OLH; Nick, N3GOC; Sharon, N3RZQ; Don, KA3JWE; Clarence, W3PYF; Chuck, KD3SQ; John, N3IGA; Norm, N3GXW; Amy, KD3TI; Carl, KA3TEQ and Marcia; Bob N3QZR, and Melissa; George, N3OWG; Bonnie, N3SWA; Dan, N2LAU; Paul, KA3MTY; Jeff, N3QZT; Brad, KA1RAH; Bob, N3NET and Jeanine.

Four members helped with both the Run and the Float: KE3AW; KA1RAH, N3QZT and KD3TI.

Hoax distress calls prosecuted

Federal Government Prosecutes False Distress Calls

A 41-year-old resident of New Baltimore, Mich., has been convicted in Federal court of issuing a false distress call to the US Coast Guard. Last May, the man transmitted a radio message claiming his boat was sinking. He will be sentenced in July for the felony. Earlier, the FCC had fined the Michigan resident $8 000 for violation of communication law.

In similar cases, a New Bedford, Mass., man convicted of transmitting a false distress call in 1992 was sentenced to six months in prison and fined $5 000. A resident of Fairfax, Va., who pleaded guilty in 1993 to transmitting a hoax mayday was fined $50 000. He will also be unable to obtain a radio license of any kind for the rest of his life.

[Reported in the July/August 1994 issue of Ocean Navigator magazine.]

During the Celebration

by Orlando, KD4LRG

During the celebration of their 50th wedding anniversary, the wife noticed a tear in her husband's eye..."I never realized how sentimental you are" she said. "That's not it" he sniffled... "Remember when your father caught us in the barn, he said if I didn't marry you he'd send me to jail for 50 years? Well, today I would have been a free man!-

A woman invited a handsome salesman into her apartment for a drink. Soon, however, she heard her husband's familiar footsteps in the hall. "There's only one door into the apartment, she whispered to the salesmen. " You'll have to go out the window". She pushed him to the bedroom window and commanded, "Jump!" "But lady", the salesman said hoarsely, "we are on the 13th floor" "Jump!" repeated the woman. "This is no time to be superstisious"-

One way to get high blood pressure...go mountain climbing over molehills.-

Vacations is what you take when you can't take what you've been taking any longer.-

A young man came home from work and found his bride upset...I feel terrible, she said...I was pressing your suit and I burned a big hole in the seat of your trousers..

Forget it.consoled her husband...Remember that I've got an extra pair of pants for that suit...

Yes...his bride answered...And it's lucky that you have...I used them to patch the hole...-

from the Happy Club via packet

de Orlando, KD4LRG

Digital Communication

by Joel, K9TBD,

SPICE - Simulation Program - review



Have you ever wanted to see how a circuit works but lack a few key components which you 'smoked' last experiment? Here is the "smokeless way" to test your ideas - without a bench, parts, or even an O'scope. Spice stands for a "Simulation Program with Emphasis on Integrated Circuits".

Spice was developed at U.C. Berkeley, and it is the de facto world standard for analog circuit simulation. The student version is available from MicroSim Corporation. It may freely be downloaded from a number of FTP sites. The PC version is called PSPICE. It comes as two full floppies for unzipping. It is best used on a fast machine with a math coprocessor and additional ram.

The 'student' version of Pspice has some limitations, it is more than the amateur will ever need. I mostly use it for the circuits I really do not know how to solve - mostly non-linear ones, although it solves the linear ones as well - ones that are more work than I would expend - even though, in principle, I know how to solve.

The beginner, with a rough idea on how basic components work, with or without any mathematical skills, it is a dream! It totally replaces all those parts and instruments you never could afford. It is a great 'head alignment tool' for those who think they know how circuits work.

What can SPICE do for you? The basic things are:

DC Analysis: Put batteries on a bunch of parts and find out what all the currents and voltages are. (Get a copy [of PSPICE] and be the first to give the answer to any of the DLARC Newsletter teaser questions.)

AC Analysis: Run all of the function generators from A to Z in frequency and see all of the currents and voltages anywhere in the circuit. Look at the Input and Output Impedances - find the RMS power levels of all components, etc..

NOISE Analysis: Perhaps you have a microphone and its amplifier. What kind of noise did 'mother nature' provide that you did not put in yourself?

TRANSIENT Analysis: This is very powerful. This is the time domain solution of the complicated circuit that you have specified. Any burble and non-linear behavior which maybe in the circuit is yours for the asking. Solutions to complex differential equations are available for which nobody knows how to solve.

FOURIER Analysis: Look at the harmonic content of your nice SSB rig, with a two tone input. This is nifty.

There is much - much more. There are device models you just call up by name. Some are *OPAMPS, DIODES, GATES, TRANSISTORS* as well as standard things such as resistors, capacitors, and inductors.

Here is a sample simple use of PSPICE. A circuit so simple I can not even solve - a half wave rectifier. Suppose you want to make a simple power supply, for example:

A battery eliminator for your tape recorder: (sample Pspice model)

You could buy one, but, why not design and build it yourself? Not even knowing the design equations involved. Only, how to specify the components. Here is the PSPICE way to give the simulator the information required to analyze your design.

* This is a comment - Half-Wave Rectifier Example - K9TBD 9/94

.model MYDIODE D ;this calls up a library model for a diode

Vin 1 0 sin(0 20 60) ; 20V peak 60Hz sin wave source voltage D1 1 2 mydiode; standard diode model (note case insensitivity) R1 2 0 50Ohms; this is a 50 ohm load resistor C1 2 0 1000uf; this is a 1 nf filter capacitor

.tran 1m 100m ;this statement says print every 1 millisecond up to 100 ms.probe; this statement says call up the O'scope after analysis

.end ;this statement is not at all necessary - guess what it means

These simple statements tell the simulator that we have a 20 Volt peak sine wave source running at 60Hz, feeding a diode whose model is called "D". This diode feeds a load of 50 Ohms and a filter capacitor of 1000 micro farads.

The last "dot" statements ask the simulator to perform a transient analysis with print steps of 1 milli-second.

After all the analysis is done, crank up the O'scope (probe) and allow the user to look at any voltage or current in the entire circuit. The end statement is perfunctory, but, now not necessary. The (.model) statement calls in a library function (diode). There are an extensive number of pre-defined devices.

This is only a simple example of what modern simulator programs can do for you.With basic understandings of any field, software has proliferated to 'make it easier'. For the novice, as well as the experienced, this is a great help.Look for similar software for your particular interests.... It is there! Much of this software is public domain. Food for thought...

American Red Cross

Lehigh Valley Chapter
2200 Avenue A
Bethlehem, PA 18017-2181
(610) 865-4400
(610) 865-5871 FAX

August 3, 1994

Delaware-Lehigh Amateur Radio Club
c/o Clarence Snyder
717 Porter Street
Easton, PA 18042

Dear Radio Club Members,

On behalf of the American Red Cross, Lehigh Valley Chapter, please accept my sincere thanks for once again contributing a very necessary service to our event. Summer Splash runs smoothly thanks to the hundreds of volunteers who dedicate hours of their Sunday helping out. The Radio Club is always there to keep vital communications going between key volunteers, race captains, etc. And of course, your presence on the water provides comfort and reassurance to the floaters and their families.

Thank you for volunteering your time and your expertise. It is greatly appreciated.

Sincerely,

Sharon Tercha
Media/Community Relations

AN EQUAL OPPORTUNITY EMPLOYER

All Amateur Radio Operators are invited to
Participate to the DLARC, RACES & ARES nets
on 146.70 W3OK/RPT with an alternate of W3PYF/RPT 145.11
W3OK trustee Rick Saeger, K3OO
The Nets are held on Sundays at 9:30 AM and Wednesdays at 7:00PM

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DLARC INFORMATION LINE 820-9110

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==1993-1994==

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--CLUB MEETINGS

All regular meetings of the D.L.A.R.C. are held on the first Thursday of each month at 7:30 PM at Northampton County Community College
TALK IN ON 146.70
Any comments or articles contributed to
this newsletter should be addressed to
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