THE DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC.

NEWS

RD #4
GREYSTONE BUILDING
NAZARETH, PA
18064

****
* SEPTEMBER 6, 1989 *
****

MAKE YOUR OWN DIGITAL COMPUTER

HOW TO DO ARITHMETIC WITH DIGITAL LOGIC

This month, Joel, K9TBD, will explain the basics of computers. The Arithmetic Unit will be explained in terms that only require a general understanding of digital logic. If you passed your exam and know AND, OR, and NOT - you will be able to follow this presentation.

Have you ever wondered how a computer computes? Would you like to make an adding machine out of a few chips? You will be able to make your own arithmetic unit after listening to this talk.

All you need to know is how your three-way hall switch works. Come to the meeting and find out how you can turn this switch into an adding machine.

Maybe you will become another Casio, TI, or HP. See you at September meeting ('89).-

****

NOMINATIONS FOR OFFICERS THIS MEETING

The nominating committee will at this meeting present its slate of officers for the coming year. Be sure to attend. It is very important as nominations from the floor will be accepted only at this meeting. At the election meeting in October, the slate will be fixed, and no more nominations will be accepted.

The October meeting will be the election night and at the time, the new officers will take over following the elections.

It is your club and the officers that you select will be running this 275 member organization for the next year. Come help in the selection.

ARE YOU A MEMBER?

Most of our members are members of the American Radio Relay League. Are you?

Being a member of the ARRL is not a subscription to a magazine, but a member of the only group that is helping to maintain the frequencies and privileges that we have. Its leadership, which is elected by the members, responds to the requests of the amateurs who have joined and they follow their wishes faithfully. The membership services group in addition to supporting the Amateur Radio Service through representation before government agencies and administrative support to the Field Organization, offers membership services on a personal level. These include the ARRL DX QSL bureau and in addition, with the cutbacks in federal funds for the adminstration of Amateur licenses, the ARRL has taken the crucial role of acting as one of VEC's in directing the testing of new or upgrading Amateur operators.

Their leadership in public service and the direction of events such as Field Day and the normal routing of all types of emergency traffic are important in all of our lives.

If you are not a member contact our secretary Roy, KA3MNY and let him help you with your application. This goes of course for renewals as well..

Clarence, W3PYF, President DLARC

****

PA QSO PARTY OCT. 14-15th

A FEW MINUTES WITH NQ3D
by Mike, NQ3D

The regularly monthly meeting of the DLARC was held August 3rd in Nazareth at the Greystone Building with W3PYF presiding. There were 75 members and guests present. The minutes of the July meeting were read by NQ3D and approved. The treasurer's report of $3772.15 was read by KA3MNY and approved.

New Members welcomed included:

WA3VHL, Glenn Block; KA3UJF, Dennis Check, and WA3UYC, Mark Stives.

W3PYF asked for a volunteer to chair the club picnic committee. W2SPK offered to help procure the food for the August 20th event to be held at Hackett's Park in Easton.

Members were reminded an ARRL Emergency Coordinator is still needed. The volunteer must be a resident of Northampton County, possess a General Class or higher license, and be an ARRL member for this ARRL appointment. KU3K announced the annual Century Run bicycle event will be held September 17. Volunteers are needed to man check points to provide emergency communications. Contact KU3K for more info. Volunteers are also needed for the September 24 Moonshine Enduro 80-mile off-road motorcycle race near Tamaqua.

Members were encouraged to fill-out and return the K3YD Questionnaire that appeared in a recent newsletter.

W3TDF announced the PA QSO PARTY has been postponed to October 14-15.

In a "double award ceremony", KU3X presented W3TDF with a "Worked All States" certificate for Ray's fine 10 meters effort. Ray then reciprocated by presenting KU3X with a "DX-100" certificate. Nice job Ray and Barry!

KU3K, Field Day '89 Chairman, announced the club made over 2000 QSO's and came close to 7000 total points this June. The Novices came through with 192 QSO's at 2 points each! Great job!

NC3P, K3CP and N5IEP will serve as club election nominating committee. They will have the duty of nominating one person for each position available. Other candidates may be nominated "from the floor" at the September meeting only! The election will be held at the October meeting with new electees to take office following the election.

W3PYF reminded the membership to contribute to the newsletter if at all possible. Clarence also read a bulletin stating there must be actual proof an amateur station is causing broadcast interference before the station can have "quiet hours" restrictions levied upon it.

After the business meeting was adjourned, N5IEP presented an interesting videotape of the QSO's the Nashua, New Hampshire Radio Club, WB1FFZ, made with the shuttle Challenger. de NQ3D, Secretary.

****

PA QSO PARTY
by Ray, W3TDF

As indicated in other places in this newsletter, the PA QSO party will be held on Oct 14th beginning at 1600Z and ending on Oct 15th at 2200Z.

This is the year for DLARC to get to the top. If everyone who operated last year increases their score by 10%, and the 6 or so regular contesters do their thing, we can take first place, and possibly set a new club record.

There are three new sections this year with the State of Washington now divided into EWA and WWA and KP4 is added.

Don't forget to look for me, W3TDF from Cambria county (CMB).

****

THE SAGE SPEAKS!

He who knows not, and knows not he knows not, is a fool. Shun him.

He who knows not, and knows that he knows not, is simple. Teach him.

He who knows, and knows not that he knows, is asleep. Waken him.

He who knows, and knows that he knows, is wise. Follow him. Unknown author.

de K3CP, Van

****

FOR SALE

Icom 04AT, 450 hand held, with wall charger. Good condition, $200. Radio Shack, portable Model 100 computer. Works great for packet, with AC adapter. $200. with all documentation,. Contact Clarence W3PYF. 252-2109.

REMEMBER JOIN ARRL OR RENEW YOUR MEMBERSHIP THROUGH DLARC!

WHAT'S S.W.R
by Van, K3CP

Ima Lidd was pleased with the progress he was making in his studies of electronic theory and the fundamentals of ham radio. He was grateful for the help he was receiving from his Elmer and other hams in answering his many questions. Ima now thought he would ask his Elmer about standing wave ratio. He wanted to know what it was and how important it was to the operation of his antenna system. He also asked Elmer if it was difficult to understand.

Elmer said that what Ima needed to know for antenna work was not very difficult to learn. The standing wave ratio or S.W.R. is just that - a ratio. A ratio is a comparison between two numbers. For example - If Ima has $100.00 in his checking account and $10.00 in his savings account, the ratio or comparison of the two accounts would be 10 to 1. That is for every dollar in the one account there are 10 dollars in the other one. The ratio involved in Ima's question on S.W.R is the comparison of two units either watts, volts or amperes. It doesn't matter which units are used as long as you are consistent. The ham text books refer to it as the V.S.W.R. or voltage standing wave ratio.

The standing wave ratio is the comparison of two traveling waves that exist on the antenna feed line if it is not matched. The first wave is the one that goes from the transmitter to the antenna. This is known as the incident wave. The second wave is the one that goes back the feed line from the antenna to the transmitter when the load is not matched to the line. These two traveling waves meet each other along the line and produce a STANDING WAVE. When they are in phase the current in the line is at a maximum and when they are out of phase the current is at a minimum. The comparison or ratio of the maximum to the minimum is a number like the 10 in the bank accounts example. This number is the S.W.R. It is written as a ratio, 2.5 to 1 or 2.5:1.

Well, Ima could understand where the incident wave came from, but he wondered what caused the reflected wave. Elmer explained that it was the wave caused by the mismatch between the feed line and the antenna. It's something like matching hi-fi speakers to an audio amplifier. If the amplifier has an impedance of 8 ohms, the speakers should also be 8 ohms. The reason for this is that maximum power transfer from one circuit to another takes place when both circuits have the same impedance. The maximum power will be transferred to the antenna when it is the same impedance as its feed line. The signal going to the antenna is R.F. If there is no reflected wave, the power in the feed line is equal at any point in the line. The power equals the product of the current and voltage and it is the same at any place in the line. If all the power goes into the antenna, none is reflected down the line, and the S.W.R. is 1.0:1. A very good condition. The S.W.R. of an antenna system is determined by the impedance match between the antenna and its feed line. Elmer repeated this for emphasis. Nothing else affects it.

Any adjustment to the S.W.R. must be made where the antenna meets the feed line...and for greatest accuracy the measurement should be made at that point as well. A half wave dipole antenna has an impedance of 75 ohms at the center of it. This antenna is 75 ohms at its resonant length. For example, let's say that a dipole is 66 feet in length, its resonant frequency would be about 7.090 Mhz. As a matter of general interest, if we convert the units to the metric system, that would be approximately 20 meters for one half wave length or 40 meters for one wave length. At resonance the S.W.R. would be 1.0:1 under these conditions. Unfortunately, as soon as you change frequency, the S.W.R. increases.

Elmer will continue his discussion on S.W.R. with Ima Lidd next month.

de Van K3CP

****

ANNOUNCEMENT

On Sunday, September 24th, operators are needed to provide communciations for the organizers and participants of the "Moonshine Enduro" an 80 mile, mostly off road motorcycle event which starts near Tamaqua. Although this is not a club project, N5IEP has offered to coordinate our clubs activity. Communications for this is headed by two of our members, KA3ODI and WA3CQU. de W3PYF.

DIGITAL COMMUNICATIONS
by Joel, K9TBD

FILE EXCHANGES - BASIC

In order to exchange BASIC language programs using RTTY, Packet, or other digital transmission methods, a little work and some thought are required. BASIC programs are natively stored in your computer in a form that is called Tokenized format. This is a compressed form (to save space) and is not entirely readable or transmittable as is. (This is also true of Word-Processed text and precautions should be taken to make it pure ASCII text readable by any machine). Look up in your word processor on how to get pure ASCII text from your processor - sometimes it is a menu selection or just print the file to disk.

PC (or clone systems)

To change tokenized BASIC on a PC (BASICA or GWBASIC interpreter) do the following:

1) Load your program as usual
2) Save it with the ",a" for ASCII format.

For example if you have the nice Ham-Calculation program that you wish to send to a friend over packet and it is called "hamcalc.bas" - load the program as usual - but this time instead of just selecting the "save" function from your menu - instead type

```
SAVE "HAMCALC",A
```

This will save it in ASCII format and you can now send it to a friend over any ASCII terminal.

Caution: RTTY Baudot code does not support all of the characters that are in the ASCII character set and you cannot send it very well that way. Same is true of AMTOR. Another method called HEXing and DEHEXing will do the trick there.

C64 OR C128 SYSTEMS

For a C64 to change the tokenized Basic program on your C64 to send it as pure ASCII text - you can use a program or type the following commands directly:

1) load your program that you wish to translate
2) type list - to see if it is there - if so then type
3) OPEN 8,8,8,"output file name,s,w":-cmd8:list:print
4) after the disk quits spinning (red light should be on) type:
5) PRINT#8
6) CLOSE8

The open statement opens a disk file (device number 8) called whatever you type in quotes - in my example "output file name" this should be different than your original name otherwise you may clobber your program.

The s,w means open the file for Sequential, Write (or sequential ASCII readable file). The CMD8 opens the output list channel to the disk instead of listing to the screen. The print just gives you a next line on your screen so you don't get confused. The PRINT#8 prints the last of the remaining buffers space in case it was not on an even byte (or multiple) boundary. The CLOSE8 closes the disk file and the red light should go off.

If you have some sort of sequential reader you may wish to verify that you did it properly by reading the file that you just created. This SEQ file is now in pure ASCII and you can send it to someone else over any computer connection in plain-text mode. It then is the responsibility for the user to convert it back into a program file. This may be accomplished with the accompanying file called SEQ-PRG which I also put here in SEQ format.

Good luck and hope that this confuses you less than it did me when I first learned about the funny representations of data. ASCII is a seven-bit code and the tokenized form is eight bit. More on his next time.

If you have questions of a similar nature or you think they are of general interest - please drop me a note on my BBS or a post card and I'll try to address them in this column.

73 Joel, K9TBD

OUCH

By Dewi, N3FNW

Many of you know by now that Ida, my XYL broke her wrist toward the end of April. I have been accused of finding the HUMERUS side of everything, now before you correct my anatomy, I know that the HUMERUS is a bone in the upper arm, so there. A broken arm is bad enough, but how about everything that goes with it. I became somewhat of an authority on the fastening of braziers, pulling up unmentionables, washing backs, tying shoes and a myriad of other things as they came up. I came up with a good system to keep the cast dry, a plastic waste basket liner held in place with plastic electrical tape. It works and costs less than one of the sleeves they tried to sell to me at the drug store. Its disposable too although not biodegradable. Now Ida is one of the most self sufficient people that you will ever meet. She can do all sorts of things in her office. Her aim with a hypodermic needle could qualify her for the olympic dart team.

Now she had a ton of concrete and steel on her write hand, Richard, write is spelled correctly. (Harry's son spell checks me and I had to tell him that). Ida made a shopping list for me, starch looked like shorts so I made a trip to the department store. Then I tried to figure who they were for and needed size and color so, Ma Bell put me in touch. Cat food became car fare so I left some money out. I tried to get Ida to use this program to communicate with me but computers worry her and she keeps her distance. Believe it, her palms get sweaty when she hears me turn this thing on.

Sleeping was a real challenge. Did you ever see the drawings of the medieval weapon they called a mace? Did your spouse ever take one to bed with her? Ida broke her left wrist about ten years ago and had the same type of cast and pins. Maybe that's where I got the way I am. When she turned over in the middle of the night, OUCH. Do you suppose that she was getting even with me?

Our minister (a real f-r-i-e-n-d) told the congregation that she tripped over my golf clubs and some wisenheimer said no, it was my co-ax. Well, they are both wrong, it was the printer cable. Poor Goldie, our cat, thought that in some way she was responsible and hid for three days.

Driving was a challenge, she used her knees and put the cruise control on. Its a good thing that she left the house early in the morning before Glenside wakes up. I tried to take her car keys away from her but she wielded her mace and said no.

How about airports, She already has a steel implant in her hip, now with the steel pins in her wrist she has become a real challenge for the security check. beep beep. She carries a card in her wallet for the steel in her hip but they have to take her word for the pins in her arm.

The powder rooms provided on the planes give new meaning to the expression "Comfort Station". This is just as true for someone who is not in Ida's situation, but add a plaster cast to the menu and the 3' by 3' room shrinks by 50 percent. I'm sure that she put the thing through the skin of the 727 that we went to St. Louis on.

I could go on and on, but the best way for you to understand is to have your O.M. or Y.L. tape our right arm to your body some night when you want to be kinky and I'm sure that you will see what I mean. TEQ, you have a new admirer.

de Dewi, N3FNW

****

FOR SALE

Coco 64K computer with speech Osound pack. Has RS232 Program Pak and also a Kantronics RTY/CW/ASCII plug in module. This system will get you on RTTY with a TU and Packet with a TNC.$75. takes it all. Call 837-9071, Bob, WB3DTG.

****

Cushcraft 2 meter Jr. Boomer. High Fwd Gain and side/back rejection. Used but in good condition. $25.00.

Butternut HF5B Mini-Beam HF antenna. Used for only 9 months. Mint condition. Semi-assembled $175.00. Call Joe, N3ELM at 837-8201.

****

REMEMBER! PA QSO PARTY OCTOBER 14 & 15TH.

LETS MAKE DLARC NUMBER 1 THIS YEAR!

de Ray, W3TDF

DON'T JUST DO SOMETHING!-SIT THERE

by Kay Craigie, KC3LM, EPA SM

You tune onto a frequency and hear a situation in progress. You don't know what is going on. What should you do? First, turn your VOX off. Then:

1. KEEP QUIET: Don't ask what is going on. Don't ask if it's real or a drill. Don't offer to help. Don't answer questions. Don't relay. Don't tell other people to shut up. Don't ask weak stations to say again. Don't ask where this repeater is located. Don't ask if your friend Alonzo who used to live up this way has checked in because he had a real good signal on this band back in 1956. KEEP QUIET.

2. Tips #2 through #9 are the same as Tip #1.

10. If, after carefully listening long enough to understand what is going on, you discover that you can definitely be of specific assistance, check in at a time when it is not disruptive of the ongoing activity on frequency. If Net Control asks for stations in Guatemala or the Yukon, it is disruptive to check in from Bushwhack County, PA. After acknowledgement by Net Control, return to following Tip #1 until asked to transmit again.

Of course, we can't hear the 500 operators who are following Tip #1, only the dozen who don't -- so we can't gauge the true percentages. However, it doesn't take many unhelpful helpers to cause serious, maybe even dangerous, delay. Please consider including these tips in your next licensing course or training net.

I found this on one of the local packet bulletin board systems, from Kay, and I felt it was a very important message..We all want to help, but lets wait until the time is right. de W3PYF, editor

WE DID WELL!

According to the National Contest Journal, published by the ARRL, we did great in the last years QSO party for PA. Among the single operators, Bill, K3ANS was fifth in the state. The club was THIRD in the entire state, with Murgas and Dauberville ahead of us. This is with an 28 club entering. I guess the pushing of W3TDF worked. Wait until this year. de W3PYF

FROM THE FCC

From the Communications Daily, of June 1989

Ham radio operators who interfere with broadcast signals won't have so-called "quiet hours" imposed on them by FCC without full investigation first under report and order that Commission recently adopted. In 3-0 vote, FCC approved final rule to maintain existing procedures for imposing quiet hours, rather than giving district engineers power to silence ham radio operators "as necessary," under proposal to revise Part 97 regulations.

Order also streamlines existing amateur radio rules, which haven't been revised since 1951, thus "providing for more flexibility in the service to accommodate new technology." Chmn, Patrick said. FCC noted new Part 97, which will have 6 subparts and 2 appendices, will codify and clarify Public Radio Bureau (PRB) policies and rules interpretations that have evolved in last 28 years. New rules probably won't go into effect until September, to give manufacturers and nation's estimated 450,000 ham radio operators opportunity to learn new regulations.

One of the other provisions of the revised Part 97: Buying and selling amateur station apparatus via ham radio is allowed, but exception to business radio provision forbids such communications by those seeking "to profit from sales or purchases on a regular basis," FCC said. In addition they indicated that Telegraphy receiving test, alone, is adequate proof of sending and receiving ability, in terms of operator license examinations.

FOR SALE

Two Meter 35 watt Tube type Motorola Base station type CC3012,143GGB, 1110 Serries. Dual Channel. Perfect for Packet & RTTY. Total $40.00...Schematic and test kit for tuneup available..Motorola 1/4 whip, for mobile, brand new! Now cutr for 162-174, can be cut for 220 or 440 MHz..$5.00

CONTACT BEN N3CNH @ 282-1382.....

****

PA PARTY OCT 14-15

DON'T GUY THAT CRANK-UP
by Robin, KD3HS

I believe that crank-up towers shouldn't be top-guyed. They are designed to be free-standing, and should stay that way. Here's why...

When a guyed tower is pushed sideways by a gust of wind, the the guy pulls downwards on the tower, as well as sideways.

Take a typical case: the top two sections of a 50ft tower weigh about 450lbs. The side thrust in a very heavy gust could easily be 800lb - perhaps more. The corresponding load on the hoist cable would be 1650lbs. This is four times the normal stress, and could break the hoist cable.

I wouldn't want to be around when the top section of that tower hit bottom and the beam disintegrated into a shower of elements!

You CAN guy a crank-up at the top of the fixed section, but it doesn't buy much because the mid section will probably be the first to crumple if the wind speed increases beyond what the tower can stand.

So play it safe: stay within the manufacturer's rated antenna size, and don't top-guy. (And by the way, don't even think about climbing a crank-up!)

73 de Robin, KD3HS

****

FOR SALE

Yaeasu FT207R 2 meter handheld, with two batteries, drop in charger and wall charger, call N3GXK, Norm at 262-8415. $125.00.

****

W H Y ?
by Ray, W3TDF

When you are outside in a wonderfull portable location, operating with great enjoyment, some little problem comes up and (with $1,000 worth of tools at home), the only thing available to make repairs is a rock, a piece of #30 wire and a crow bar.

Why is it, when you're on the low end of 20, waiting for a piece of su rare DX; you finally get on his list and its just about your turn, then the XYL yells, "This is the last time I'm going to call you, you steak is going in the garbage."?

Why is it, when your up on your 150' tower, in a high wind, and you always drop the one tool that you cannot do without?

Why is it, when your at the edge of repeater coverage, when someone comes on and reports a bad electrical storm in your area, and you suddenly realize that you forgot to disconnect the coax from your $6,000 radio?

I'm sure you have a lot more "Why is it" remarks, why not add yours? de Ray W3TDF

****

CENTURY RUN SET FOR SEPTEMBER 17TH
by Bob, KU3K

I had the pleasure of working with Herb Taylor for many years in the pursuit of his passion for ham radio. Herb, k3CIS, was instrumental in forming what is now known as the communication link for the century run, a yearly bikeathon sponsored by the Lehigh Valley Wheelmen. Herb kinda backed into the job when a relative asked if it was possible to provide communications for this 100 mile grind through the Valley and Pocono mountains. It was no surprise that Herb got down to work and provided a well oiled machine. I have had the pleasure to work in Herb's capacity since his death a few years ago and find myself just following his lead, an easy task to be sure.

The Century and sponsor Wheelmen rely on us every year to provide much needed communication "just in case." We count every biker through checkpoints and at the end of the day when the last one has cleared the last checkpoint, we all go home knowing we have provided a necessary benefit for our neighbors. Its not a difficult thing to do if you'd like to join us, just give me about 3 hours at some part of the Sunday. We start at 7 A.M. At the Northampton County Community College, however I may put you anywhere in the area. The DLARC even has handi-talkies to loan Just in case you don't have one. Call me...866-5879...KU3K

****

THIS MEETING WILL FEATURE NOMINATIONS FOR OFFICE FOR THE COMING YEAR. BE THERE AND HELP MAKE THE SELECTION.

ELECTIONS WILL BE HELD AT THE OCTOBER METING.

***

FRANZ JOSEF LAND - UA1OIL, Serge on Hess Island, likes 14,215 KHz from 0000 to 0130 UTC. He announced that UAØBAZ/UA1O is presently setting-up on adjacent Alexandria Island for an all-bands, cw and ssb operation during his 2-year tour of duty.

***

IRAQ - YI1BGD is often near 14,210 KHz from 0100 UTC. See over for QSL routes.

***

LESOTHO - 7P8DP on 21,296 KHz from 1800 UTC. QSL via W8JBI.

***

LIBERIA - EL7X on 18,071-075 KHz from 1700 UTC. QSL: Box 538, Monrovia, Liberia.

***

MALAYSIA - 9M2CW seldom misses a day near 14,185 KHz from 1130 UTC. QSL Chin to his '89 CBA or via Buro. ... 9M2DW is similarly active around 14,210 KHz from 1000 UTC. QSL Tan to his '89 CBA or via Buro. ... W. Malaysia is also well represented by 9M6HF (QSL via WE2K) and 9M6MA (via Bureau) within a few KHz of 14,215 from 1100 UTC, plus 9M8STA, Mat, near 14,160 KHz from 1030 UTC (QSL via Bureau). ... DXpedition - 31 August to 3 Sept. 9M6SDX will be atop Mt. Kinabalu, Borneo's highest mountain (13,455' above sea-level), with cw and ssb on 10, 15 and 20. QSL with an s.a.e. and a greenstamp via 9M6MA (Bureau) for his picturesque QSL.

***

AZERBAIJAN - UD6DA on 14,226 KHz nightly from 0130 UTC. QSL via Box 88, Moscow.

***

BAHRAIN - A92BE is on 21,310-312 KHz every day from 2000 UTC. He will graciously comply with your request for a sked on any band (10 - 160). QSL to his CBA.

***

CHINA - BY4AA is regularly aboard the KDØJL 40-meter DX Net on 7159 KHz from 0545 to 0830 UTC. Other attractions include KC4USB and TL8WD (to mention just a few)!

***

SINGAPORE - 9V1YC is KB1CBM. He, with YB3CN and ZL4BO on 14,165 KHz at 1200 UTC, are active Saturdays. QSL 9V1YC to Box 9047, Singapore.

***

SO. SHETLAND IS. - HL4BDS can be found daily between 28,015 and 28,030 KHz from about 1500 UTC. Compare the direct vs Long Path for optimum signal. QSL via HL1ASS.

***

TAIWAN - BV2A, back home from his recent visit in the USA, relates his experiences in daily QSOs around 14,226 KHz from 1500 UTC. QSL Tim via K2CM.

***

VANUATU - YJ8JS chooses a clear spot between 14,160 and 14,185 KHz to open his daily activity which begins about 1230 UTC. QSL Norman via N4EVS.

***

W. MALAYSIA - 9M2CW is within a few KHz of 14,185 KHz daily from about 1100 UTC. QSL Chin via his '89 CBA or via his Bureau.

***

AMSTERDAM I. - FT4ZE on 14,165 KHz from 1000 to 1300 UTC. QSL via F2CW.

***

ZAIRE - Momentarily! 9Q5EE will be the likely callsign of Sig, WA9INK at his new QTH, which follows his tour-of-duty in Egypt where he signed SU1EE. Until he is completely set up, watch for him near 21,030 and 21,310 KHz.

YANKEE DOODLING

WATERPROOFING

Last month I mentioned a product for sealing coax connectors from water. For those who asked for a repeat: The January, 1989, issue of Radio Communications, Journal of the Radio Society of Great Britain, recommended the use of "self amalgamating" electrical tape wrapped around the connectors. The tape should be wrapped with 50% overlap and stretched very tightly--wrapping from small to large end. Wrap a barrel junction from both ends to center. The tape will fuse into a custom-made waterproof boot for the connector. IT MUST BE COMPLETELY OVERWRAPPED WITH ORDINARY PVC TAPE [SCOTCH 33+, OR EQUIVALENT] OR THE FUSING TAPE WILL BREAK-DOWN UNDER µV LIGHT (read sunlight). In the US of A, "self amalgamating" tape is better known as Scotch 23 Rubber Splicing Tape, and is available at your favorite electrical supply house (like Fromm or All-Phase) at about $8/roll. When you remove this tape, plan on using a NEW Stanley utility knife blade--it gets tough!

[If you are still using Coax-Seal ™ to seal connectors, old-fashioned LIGHTER FLUID does a pretty fair job of removing the sticky black residue from that stuff. No, don't light it--just use it as a solvent!]

GREASES & SEALANTS

The RSGB article mentioned two other interesting substances which also belong in your tool kit if you use antennas or coax. Let's say you want to waterproof the terminal block on the bottom of a rotator, or the driven element connections of a beam which uses nuts and bolts. Here, **DOW CORNING MS4** is an alternative. This is silicone grease which comes in a 5 Oz. tube (like a large toothpaste) for about $9.50. It has good dielectric strength--21.7 kV/mm, and is also a handy lubricant for feeding wire through tight grommets. A good silicone grease just sits there and protects--and doesn't react.

If you want a sealant which sets-up to a semi-solid, DON'T USE COMMON RTV or any common caulking or bathtub sealant. These emit a strong vinegar smell when curing and will corrode and destroy electrical connections to nonconductivity within a year. DOW CORNING Silastic 738 is designed for corrosion sensitive electrical or electronic equipment/connections. It's disadvantage is a long-slow curing time--about 2 to 3 days to tacky and 1-3 weeks to dry. A small tube ±5 Oz. costs about $9; a 10.3 Oz tube (which fits a caulking gun) is about $13.50. If you have an especially critical application (i.e. E-M-E or satellite) you may want to use Dow 3145 Hi-Tech RTV. A good application of either is sealing the PL-259/SO-259 junction on a Hy-Gain balun. Wrap the coax as far as you can with Scotch 23, then pot the connection with the Dow 738. Both 738 and 3145 have a 500+V/mil dielectric strength. The applications notes for both 738 & 3145 recommend cleaning the surface to be sealed (except plastics) with acetone and then, always, priming the surfaces with primer--DOW 1200 for 738; DOW 1204 for 3145. Rubber surfaces should be lightly sanded and acetone wiped.

Chris, NU3L, managed to locate a few suppliers for these Dow products. **Bearings, Inc.** on Marcon Blvd. in Lehigh Valley Industrial Park, and **Command Bearing** on Irving Street in Allentown supposedly carry both MS4 and 738. **Brownell in Trevose, PA**, was listed as the source for the #3145; we suspect that they carry the MS4 and #738, too.

WHY BOTHER??

All of these great tapes, and sealants sound like a lot of bother and are expensive, too. You might ask, "Do I really need any of this stuff?" Let me quote a line or two from the RADCOM article.

"The PL-259 ... is about as waterproof as a fishing net. If you put a PL-259 on the end of a run of [RG8] and there's a light shower thirty miles away, the coax [conductor and braid] will **turn green in ten seconds flat**!" Perhaps a slight exaggeration, but with good coax costing $.30 to $.50 per foot, it seems to make sense to spend a few dollars to protect the dollar and time investment in a coax run. WATER IN YOUR COAX WILL CAUSE CORROSION AND WILL CAUSE A CHANGE IN THE ELECTRICAL PROPERTIES OF THE COAX. Do you want a conductor or a semi-conductor in your feedline?

9/89

73 de K3YD

WANTED

COMPUTER/TELEPHONE MODEM
working condition & inexpensive
any speed (300 baud +) OK
K3NZ (799-4044) or 146.70





NEWS

THE DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC.

RD #4
GREYSTONE BUILDING
NAZARETH, PA
18064



Raymond Bilger
R.D. # 1 Box 178
Coopersburg

W3TDF
State Road
Pa. 18036

SEP 89



All Amateur Radio Operators are invited to participate in the DLARC 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 the Official Publication of the Delaware-Lehigh Amateur Radio Club Inc.

****

1989

CLUB OFFICERS

President - Clarence Snyder.....W3PYF..252-2109
Vice President - Ray Bilger.....W3TDF..346-7313
Secretary - Michael Schooley.....NQ3D...253-2239
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...866-5979

****

NEWS STAFF

Editor - Clarence Snyder.....W3PYF..252-2109
DX Column - Stokley Benson.....AJ3H...398-2359
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
717 PORTER STREET
EASTON, PA 18042-1548

