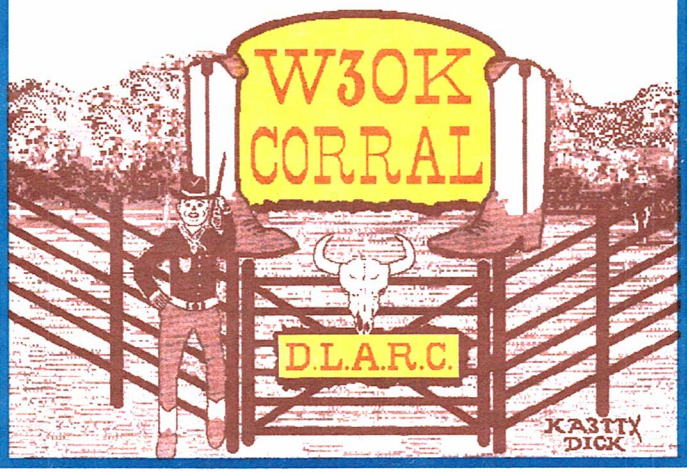
DELAWARE - LEHIGH AMATEUR RADIO CLUB, INC. W3OK

March 4, 1993



SPECIAL SERVICE CLUB ARRL

ARRL Affiliated Club

DX WITH A FLAIR

by Bill, K3ANS, DLARC

Dr. Alex Aimette, K2DOX has been going down to the Island of St Kitts in the Caribbean for dxpeditions and contesting each fall since 1989.He has logged about 13000 QSOs by himself.On March 4 he will give a presentation at DLARC, 7:30 PM, EST. He will talk about about the operation of his station at V47KP, often at the site of an Island TV station. He will talk especially about the people and hams he has met, the super courtesy of the hams on V4, and about the equipment and techniques which are useful for anyone interested in working dx stations. He will tell you how to make it easy to work a dx station and the simple rules which make you welcome when you call a dx station.

Alex is Vice President of the Frankford Radio Club. He is an opthamologist in Souderton, PA;has advanced degrees in mechanical engineering; holds medals for competitive target rifle shooting; and races sailboats across the Atlantic Ocean.

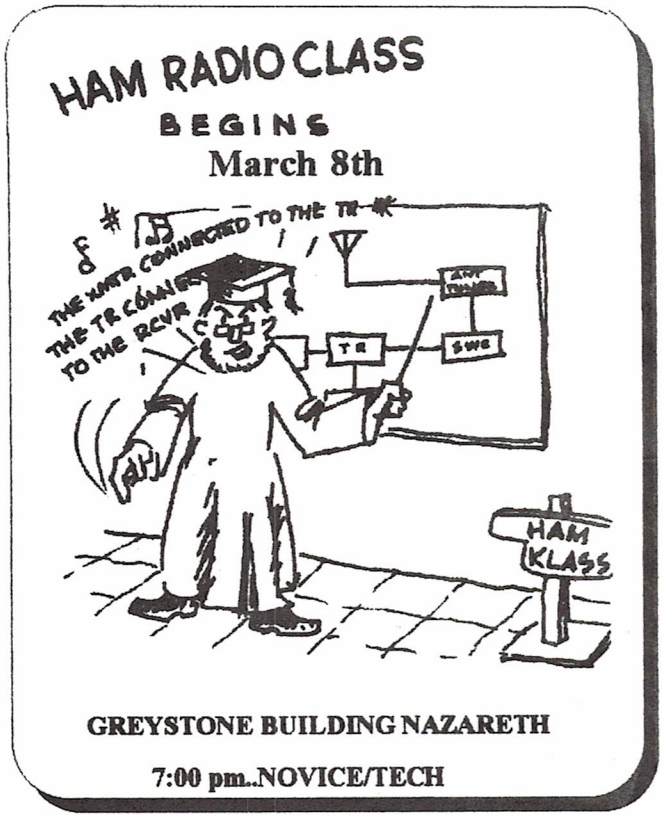
In his spare time (?) he is building a contest station with multiple towers and antennas at Souderton. Alex, who is always full of energy and ideas will be very educational, entertaining, and exciting. He is not a polished CW operator, but he perseveres and accomplishes fine scores. Don't miss V47KP March 4 in the Theater of Northampton Community College.

de Bill, K3ANS, DLARC Program Chairman

THIS MEETING AT NORTHAMTON COUNTY COMUNITY COLLEGE THEATER

7:30 PM THURSDAY MARCH 4th

Talk in on W3OK Repeater 146.70



drawing courtesy The"BLURB" Philmont Mobile RC

CALL 820-9110 FOR INFORMATION

WEATHER EXERCISE MARCH 25TH

by Clarence, W3PYF EC/RO Northampton Cty

The regular annual State Wide, Emergency Management Weather exercise will be held on March 25th beginning at 9:00 AM and continuing until 3:PM.

This is one of the few time we are requested to participate by County Emergency Management. All are requested to participate who can make it.

73 Clarence W3PYF

W3OK REPEATER DOES IT AGAIN

by Bob, WF3H

Recently, a TransBridge Charter bus inbound from New Jersey to Emmaus Jr. High was being harassed by the driver of a van. A greater misfortune was to befall the van driver who did not realize the bus driver was N2ESQ, who requested assistance over W3OK.

KA3ONZ and I promptly notified both Northampton County, and the Emmaus Police Department. The van driver's lack of smarts was demonstrated when he followed the bus all the way to the school. The Emmaus PD reception committee was decidedly chilly, and the van driver, a minor, who knew someone on the bus ,was strongly informed of his errors. We hams are always glad to be of service, especially in cases like this when the outcome could have been more serious.

de Bob, WF3H.

AMATEUR RECEIVES $10,000 FINE

The FCC's Kingsville, Texas office, has issued a **Notice of Apparent Liability** to an Amateur for 10,500 dollars.

Richard l. Whiten, WB2OTK, 46, of Taylors, South Carolina, was cited for "willful and malicious interfering transmissions" monitored by the FCC on September 26, 1992, on 14314.7 KHz.

Whiten, a general class licensee, was issued the NAL two days later. In his reply to the FCC he did not, according to the commission, dispute making the transmissions, but he "denied that his signals constituted willful, malicious interference, because, he says in his letter, if he truly wanted to willfully and maliciously interfere he could have done so to such an extent that communications between other amateur radio operators would have been impossible that his comments were not disruptive that his statements were innocuous, that he was recognized and spoken to by the other amateur operators, and that he was the victim of entrapment by the other operators."

The FCC did not accept this argument, and noted that Whiten already had received two previous NALS, on January 28, 1991 and July 12, 1991, for the same rules violation.

The FCC's "base amount" fine for willful interference is 7,000 dollars. In this case the fine was raised 50 per cent "in view of Mr. Whiten's repeated violations."

from the ARRL BULLETIN 7



IT TAKES ALL KINDS

by Robin, WA3T, President DLARC

The last few weeks seem to have brought with them some of the best and the worst aspects of ham radio.

It is one of the great strengths of the DLARC that in spite of our diversity of interests, occupation and age, we have very little argument and no infighting. This doesn't happen by accident: we work at it. There are many strong personalities and differing opinions in our club. But there is also a willingness to compromise and work together for the good of the club, the community and our hobby. This spirit of cooperation is the source of our strength as a club, and is also sign of our strength as individuals.



Only the weak attempt to destroy whatever they cannot dominate or control: they tear down rather than help build. Recently, we have seen yet another deliberate attempt to cause confusion and dissension in our club: another attempt to create an "us-versus-them" attitude. Fortunately, the motivation behind this attack is transparently clear to the vast majority of our members. It was unsuccessful and will remain unsuccessful; we have closed ranks against it.

For a contrast in behavior, it was good to meet Chuck Dieboldt, a victim of cerebral palsy. At the age of 76, Chuck is confined to a wheelchair, and speaks only with great difficulty. A few years ago, he was active on CW, and has some very interesting QSL cards to prove it. But over the last few years, Chuck has lost much of his muscular coordination, and this makes sending CW very difficult for him. Recently, he decided to upgrade from Novice to Technician so that he could work packet via his computer. He achieved this a few days ago. Once again, Chuck will be able to use ham radio to escape the confines of his wheelchair.

Watch out for KA4JZM on packet in the near future, and say hello to someone who in spite of all adversity is as pleasant and cheerful a human being as you could ever want to meet.

THIS is what ham radio is about. It's not about sniping from the sidelines and tearing down. It IS about triumphant communication - real communication - between human beings.

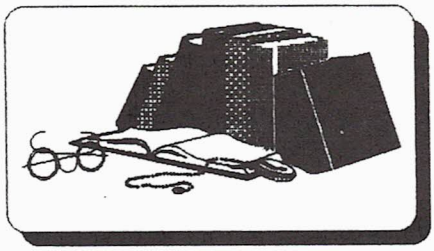
I'm proud to be part of a hobby which be so meaningful.

73 de Robin, WA3T

JUST THE MINUTES

by John, N3IGA, Secretary

The February meeting of the DLARC was called to order by Robin, WA3T, at 7:30 P.M. in the Northampton Auditorium at the Community College. There were 90 members and guests present. The motion to accept the January meeting minutes as printed in the newsletter was made by Andy, N3NNH and second by Amy, KD3TI. The Treasurer's report , given by Dick, KA3MOU, showed an ending balance as of January 31, 1993 of $8473.45.



The motion to accept the Treasurer's report was made by Norm, N3GXW, and second by Clarence, W3PYF.

The DLARC would like to welcome the following as new members:

Timothy H. East, KA3QWO
John J. Dancey, N3NUE
William R. Nixon, KI5EO
Donna R. Nixon, N5QDJ
Jeffrey S. Frantz, KA3ZIZ
Charles D. Amos Jr, N5ZXN
Charles F. Diebold, KA4JZM

Ray, W3TDF, made a motion to accept them as members with Adrienne, KA3YEB seconding.

Chris, NU3L, informed members present that the General Classes are going quite well. Chris also announced that the Novice Classes will begin on March 8. Anybody that knows somebody that is interested in coming to the classes should call the DLARC Information Line at 820-9110. He informed members that on March 1, there will be a learning seminar at the club's station to show members that are interested how to use the club's radio. The time will be from 7 to 8 P.M..

Bill, K3ANS, announced the future club programs. March meeting will be K2DOX, Dr. Alex Aimette, also operating as V47KP in the St. Kitts Island. Another program will be a video tape of the DXpedition to South Sandwich Island with VP8SSI. It shows the hardships that the operators had to work under.

Robin, WA3T, reported that there will be VE testing on February 5, 1993 at Gracedale. Team 2 will be present.

Robin, WA3T, brought to the attention of club members, what was discussed at the Board Meeting. First item was that the club donate the ARRL Operating Manual to the major high schools and technical schools. This is being done as part of our activity as a service club to the community. It will also serve in bring Ham Radio to the students who may be interested. Members present were in favor of this action. Second item was that the Board recommends that Clarence's BBS, W3PYF-3 on 144.99 be recognized as the official DLARC BBS and so named. Members also were in favor of this action.

It was also brought up about having new magnetic signs made up with the club logo to be used either at club events or for personal use. Still looking for the best price for the club.

Robin brought up the idea of having an information package available for new members and even old members since not many new members even knew about the club's station. Rich, N3NXF, had some good ideas for the package.

Ray, W3TDF, informed the members present a little club history of the PA QSO Party. He told everybody to mark on their calendar the second full week in October which is the Party weekend. **LETS BRING THE TROPHY BACK.**

Bill Murphy, W0RSJ, a member of our club ,who is the current president of the Mt Airy VHF Radio Club, gave an excellent talk on the use of Grid Squares and VHF contesting.

He was assisted by Dave, WD5BRP who talked on his Rovering experiences.

de John, N3IGA

H.H. BEVERAGE, EX-W2BML, SK

Harold B. Beverage, ex-W2BML, died January 27 in Stony Brook, New York. He was 99 years old. Although not an active ham since the 1920s, his name is immortalized as the inventor of the Beverage receiving antenna (or, as he originally called it, the "wave antenna"). It was developed in 1917 to enhance communications between the US and Europe during the First World War, and was described in QST in November, 1922.

Beverage was recognized with an obituary in the February 2 New York Times. progress in national and worldwide radio communications."

from the ARRL

IMA LIDD

All Band Antennas

by Van K3CP

Ima Lidd greeted Elmer and asked him to explain a little something about the feed line for an antenna.

"How many ways are there to feed an antenna, Elmer?" he asked. "Which way is best?"



"Hello, Ima," said Elmer. "That's a good topic for discussion, but I don't think we can cover all the different types of feed lines. There are so many - hardline, nitrogen filled, open wire, single wire and coaxial cable - to mention some.

"The most common are open wire (twin lead or ladder line), coax and single wire feeds. Suppose we limit our discussion to coax and ladder lines. Let's take a look at what we expect from our transmission line. What do you think is its purpose?"

Ima answered, "I think its main job is to take the power from the transmitter to the antenna."

"That's right, Ima. There are some other requirements that we place on the line, however. For instance, we do not generally want the line to radiate power. Nor do we want too much resistance that would cause heating and its attendant power loss."

"So one of the first things we do is to match the load (antenna) to the line. A 1/2 wave length dipole presents a load of approximately 50 ohms so we must use a 50 ohm line. RG-58 and RG-8 are two coax cables that are 50 ohms. Problems occur when we change frequency. If we have a dipole on 40 meters and change our operating frequency to 20 meters we no longer have a 50 ohm load. In fact, the load could be several thousand ohms. When a dipole and many other antennas are not resonant, they become reactive. They are either capacitive or inductive depending on whether they are shorter or longer than the resonant length. A reactive load does not absorb power so it reflects it back to the transmitter with the resistance of the line causing loss of some power through heating. The transmitter then sends it back up again with more loss of power."

Ima interrupted and asked, "What can we do about that? Can't we make one antenna to cover several bands?"

"Yes," said Elmer. "We can make an antenna to cover all the HF bands. We get around the transmission line loss problem by using very low loss line. Ladder line or twin lead as it is sometimes called is a good way of doing this. We still have high standing waves on some bands, but it doesn't matter because the resistance losses are minimal."

Ima said, "But you said a reactive load would not absorb power. Doesn't that problem still exist?"

"That is a very good observation, Ima. Yes, we still have that problem and one way of solving it is by using a matching circuit that transforms the input (transmitter end) of the line to match the output of the transmitter. There is still a mismatch at the antenna, but because of the low loss line it is no longer a severe problem."

Ima said, "I guess an antenna tuner would match the antenna to the transmitter and then we could operate on many bands by adjusting the antenna tuner."

"I object to the use of the term 'antenna tuner'. We do not actually tune the antenna. The only way we could do that would be to locate the tuner at the antenna itself. If you want one antenna to cover all HF bands, make it as long as you can, get it up as high as you can, locate it in a clear area and use ladder line with a matching circuit. It will even produce gain on the higher frequencies. For example, a half wave length dipole on 80 meters would be 4 wave lengths long on ten meters. That would produce about 3 db gain which is the equivalent of doubling your power output. It also has the same gain on receive." Ima said, "So the rule is to use a ladder line and a matching circuit for multi band antennas and for coax lines for resonant antennas. Thanks Elmer. see you next time."

"You're welcome, Ima. I enjoy these sessions as much as you seem to. So long for now."

de Van, K3CP

ARRL-WHAT'S IN IT FOR ME IF I JOIN?

by Gene, W3ZXV

Wilford Brimley, the lovable old character actor in the Quaker Oats commercial gave the best reason. "Because it's the right thing to do." But doing the right thing doesn't motivate everyone. ARRL membership offers more tangible benefits, but its contributions demand mentioning.

The largest Amateur Radio organization on the planet, the League has been Amateur Radio's most effective voice in the halls of power since the early days of radio, ARRL also provides services, including:

W1AW bulletins and on-the-air code proficiency sessions.

The Amateur Radio Emergency Service (ARES), with its outstanding record of public service in natural disasters.

The Registered Amateur Radio Instruction and Volunteer Examiner programs, which help prospective hams obtain licenses and help hams upgrade.

Assistance to hams in situations involving regulatory matters, antenna restrictions, reciprocal licenses, and in finding volunteer legal representatives.

Technical books and training materials.

Contests, including ones like Field Day that promote emergency preparedness and others that are just for fun.

Ham equipment insurance offering low rates and solid protection to individual hams, clubs and repeater organizations.

A field organizations of local volunteers to assist members in a wide variety of operating and technical activities.

Awards recognizing individual operating achievements, including Worked All States and prestigious DX awards such as DX Century Club and Worked All Continents.

QST, the monthly journal sent to all ARRL members. QST features high quality articles at all levels on technical, operating, and many other subject areas. QST also reports on local, national and international league activities, FCC actions, and more. QST alone easily justifies the cost of League membership.

The ARRL publishes journals for special interest ham groups. Contesters, as one example, find the National Contest Journal's operating tips, equipment reviews, technical information, and contest news helpful, if not essential.

Yet in today's heavily PAC-influenced FCC and Congress, the League's most important role is protecting and promoting your interests as a ham. But for its efforts there most certainly wouldn't be Amateur Radio today.

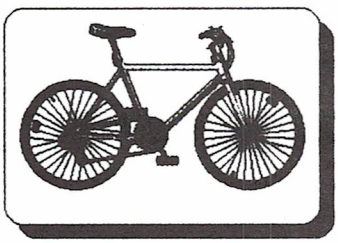
Joining ARRL is a step you can take t prevent Washington from giving our bands to rich, powerful interests that want them.

from the November 92 Penn Wireless Association 'X-Mitter'. {The last two paragraphs added by AF6S, editor of ARNS Bulletin.}

VOLUNTEERS NEEDED

by Bob, KU3K

The Delaware Lehigh Amateur Radio Club has been asked once again to provide much needed communication for the 2nd American Lung Association Clean Air Challenge bike ride. In her letter to me, Susan Kern, Director of Development, reiterated how impressed they were at the outstanding job we did last year.



We provided the service AND a level of professional expertise that few could fault. If you are free **Saturday, May 15, 1993 (Rain date Sunday, May 16)** please join us. Simply let me know that you can give an hour, half a day the whole day etc. I'll take care of the schedule. The Lung Association wants this fund raising event to grow and are planning 10, 25 and 50 mile routes this year. We will surely need more volunteers than last year so DON'T BE AFRAID! Please call me (866-5879) or leave packet mail @ W3PYF-3.

73, Bob KU3K

FOR CLUB INFORMATION CALL THE DLARC INFO-LINE 215 820-9110

Listen to the announcements and then leave a message regarding any club activities

** CONTEST CALENDAR **

by Barry, KU3X

Mar 6-7	ARRL DX SSB Contest
Mar 8	W1AW Qualifying Run 10-35 WPM
Mar 13-14	QCWA SSB QSO Party
	YL-ISSB SSB QSO Party
Mar 14-15	Wisconsin QSO Party
Mar 20-21	Bermuda Contest
	B.A.R.T.G. Spring RTTY Contest
Mar 26	W1AW Qualifying Run 10-35 WPM
Mar 27-28	CQ WW WPX SSB Contest

CONTEST TIP #10

Slope tuning or "IF" shift: These are two great tools for fighting against QRM. Slope tuning is nothing more than a sophisticated "IF" shift. They can move the QRM outside of the passband so you can copy the station you are trying to work. Also a notch control can be very a valuable tool for CW work. You can notch out an unwanted CW signal. Notch filters also can be used in the SSB mode but are not as effective in SSB as they are in CW.

de Barry KU3X

DLARC AWARDS

WAS AWARD

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. 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 be used. ***NO REPEATERS*** 24, 18, and 10 MHz can now be used for award credits
4. No QSL cards are required.
5. A form that must be filled out is available. See either myself 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 D.L.A.R.C.

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

DX100 AWARD

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 ! 24, 18, and 10 MHz can now be used for award credits
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 D.L.A.R.C.

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

You will find that going for these awards can be a lot more fun if a friend and you use a two meter simplex freq. 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 and fifty 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

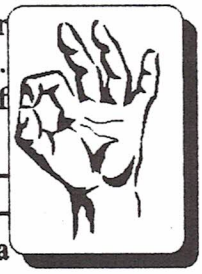
DO YOU HAVE RFI?

The ARRL has available a new pamphlet explaining radio frequency interference (RFI) to the layman. The pamphlets are available in small quantities from ARRL Headquarters for a SASE. Address in QST.

THINGS THAT CAN HELP

by Blair K3YD

CRAMOLIN



Every once-in-a while we all discover a really great tool, or glue, or cleaner which is handy around the shack. After about a month, you ask yourself "How did I ever live without this stuff?

Well, that's the case with Cramolin, a deoxidizer made by Caig Laboratories of Escondido, CA. What's a deoxidizer you ask, and how would I use it around the shack? It does what tuner-cleaner is supposed to do, and more.

I learned about it from a Service Technician at Ten-Tec. He said that their department uses it by the case! In just a couple of weeks I cleaned up an intermittent digital display, repaired a noisy volume control which had resisted all previous cleaning efforts, solved an audio problem on SSB (dirty pin on mike connector) and generally improved station grounding!

Cramolin is available in Ozone safe propellant spray cans in 2% and 5% solutions (I use 5%), liquid (2%, 5% & 100%), and pastes. It is offered in two colors -Red and Blue. Red contains a cleaner & deoxidizer, while the blue is for newly machined items and lacks the cleaner. Use is simple, spray or rush it on, wait 15 sec. to a minute and then wipe with a lint free cloth or swab. Let me tell you, the swab comes away dirty-even from internal chassis boards. For edge connectors, switches, and potentiometers just spray it lightly, allow to drain and operate/insert a couple of times. Caig claims that use of the deoxidizer improves conductivity so-much that switches can be operated far above rated capacity.

Cramolin isn't cheap a six oz. can of 5% Red runs about $10. However that's not much compared to the aggravation of months of downtime or protracted poor performance from a radio, computer or audio system. I haven't been able to find it at a local parts store yet. But you can order directly from the manufacture, or several mail-order companies.

Caig Laboratories has an address of P.O. Box J, Escondido, CA 92025. Besides this product, they also offer degreasers, oilers and high quality solders (including Silver Solder which is needed for stainless steel work). A mail-order dealer for Craig products ($25.00 order min for credit cards) is MCM Electronics, 650 Congress Park Drive, Centerville, OH 45450; phone 800 543-4330. (MCM has an interesting catalog well worth writing for.)

Caig seems very customer oriented, I made a call asking for a little technical information and received a three-oz package of data, and the dealers lists for PA & NJ. Based on my experience with the product I recommend it highly. (***No, I don't own the company or know the owner.)--de K3YD.***

(Updated from the DLARC newsletter, June 1990.)

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ICE

Another catalog you should have around the shack is the one published by Industrial Communications Engineers, LTD, PO Box 18495, Indianapolis, IN 46218

This outfit is a source for filters, ground buss bars, transient suppressors and other hard to find items.

An example, lets say you live within a mile of an AM broadcast station transmitter. Their strong signal will probably wreck havoc in your receiver if you own a typical modern broadband PLL transceiver. The IMD may make reception impossible make reception impossible on just about any amateur frequency.

The solution?

The ICE 401 or 402x filters will provide about 50-60 dB attenuation to AM broadcast band signals which would otherwise reach your transceiver's front end. The price, under $30! The product also includes telephone, TV, and stereo interference filters. If you have (or cause) interference, problems, this is one catalog you have to have in the shack!

If you're a new ham and not sure just which filter is best for your problem talk with some of the DLARC's interference :"veterans" like KU3X, K3YD, AE3T OR KW3W.

de Blair, K3YD

FOR SALE

Brother, P-Touch III Electronic Labler, complete with power supply and $85.00 worth of tapes. Call Jack, WB3BAO @ 253-0555. $100.00 takes it all.

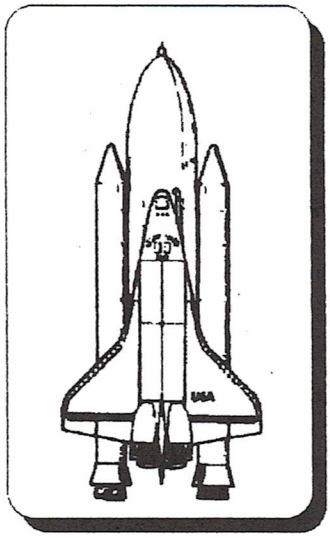
REMBEMBER ! JOINING ARRL IS NOT JUST A MAGAZINE SUBSCRIPTION

Contact Dick, KA3MOU, Treasurer for details

SAREX 1993 and the DLARC

by Tom, N3CXP

For the third time, the DLARC will participate in a shuttle amateur radio experiment (SAREX) involving Lehigh Valley Schools. Although we're awaiting final confirmation, plans are underway to involve four Lehigh Valley school participants in a QSO with the Discovery and STS-56.



The Discovery will carry the Atmospheric Laboratory for Applications and Sciences (Atlas-2) Spacelab payload in a high (57 deg) inclination orbit, allowing for a direct contact. STS-56 will carry SAREX configuration D, including 2M FM voice, packet, SSTV and 70 cm ATV (receive only). The crew will be headed up by Col. Ken Cameron USMC (KB5AWP), mission Commander and four other hams. Ken is an avid SAREX enthusiast and no stranger to the Lehigh Valley. He spoke with the Hanover School in Bethlehem, on STS-37 and visited the school to finish the QSO in person! Ken's also given a presentation at Lehigh about his previous mission.

The four students will be selected by their respective schools, from a competition based on deriving a simple experiment or observation they would like to see conducted aboard the shuttle. The schools and coordinators participating will be: North Hunterdon High School,Rich Shevalier (N3NXF)Allen High School, Andy Young (N3NUE); Shawnee Middle School, Clarence Snyder (W3PYF); and Troxell Junior High School, Tom Daniels (N3CXP). Rich and Andy are teachers in addition to being DLARC members. Two alternate schools have also been chosen.

The launch date for the nine day mission is set for 12:50 a.m. March 23. A preliminary look at the times for high elevation passes corresponding to Ken's duty shift indicate that the QSO may be early, between 5:30 a.m. and 9:30 a.m. local time. A launch delay would improve this early schedule! As of this date, the crew and NASA are still reportedly trying to figure out the mission timeline for SAREX contacts!

The actual contact will either be conducted from Troxell Junior High School or at N3CXP, depending on the final schedule. As usual, W3OK will rebroadcast the contact on 146.70 MHz. The time slot will not be shared with other SAREX participants, allowing for a ten minute window of possible contact. NASA has been trying to also coordinate shuttle attitude adjustments to allow for reliable QSO's whenever possible. If you are a parent or teacher and the contact corresponds to a time during the school day, please consider contacting your local school to share this unique experience with them.

For more information, check your local packet BBS as the time gets closer to the launch date. Please also be sure to view "NASA and the Lehigh Valley Schools" on the Manager's Chat, sponsored by host Shel Siegel, on WLVT-39. The show will air at 3:00 p.m. and 7:30 p.m. Tuesday, March 16, 1993 and is a fifteen minute overview of SAREX in the Lehigh Valley, past and present.

de Tom, N3CXP

DLARC VE TEST RESULTS FEBRUARY

by John, WX3C, Team Liason

At the February 5th VE Session at Gracedale, 16 candidates took a total of 27 elements. There were 7 upgrades and 1 new Technician:

Steven Kralick, Jr.....K3DEM.....Extra
Michael J. Stanton.....General
Francis A. Lisicky.....W3IYG.....General
Jose A. Revera.....N3MQZ.....General
Stephen D. Finelli.....N3NNG.....General
Jack H. Shields.....N3KAG.....General
James D. Scagggs.....KA3PMP..... Technician
Edward B. Lukeman.....New Tech

The VE team included: NU3L, N3IQD, KE3AW, WA3T and WX3C.

The next session will be on March 5th at 7:00 PM at Gracedale with team 3 in attendance.

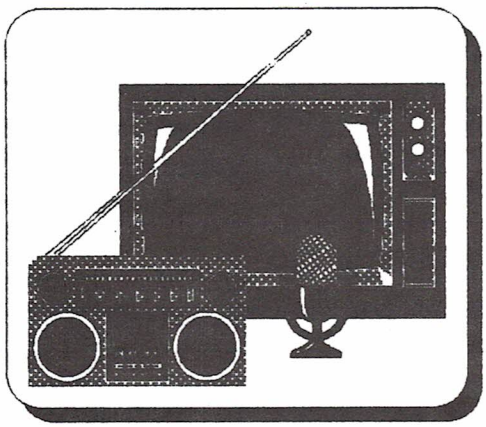
The Real Challenge and the Easy One in the last newsletter was answered by only one member: John, KA3JWE came up with the correct answers.

PUBLIC AWARENESS

by Dennis, N3JNV

Since I became an Amateur radio operator almost two years ago I have found that most of my relatives, neighbors, and friends are not very receptive of the idea of amateur radio. I have always found this rather disturbing and have tried to do my best to understand why.

Recently it has become rather obvious to me that these people feel the way they do towards amateur radio simply because they are ignorant of what amateur radio really is and just what ham operators really do. I have found that most people think that ham radio operators are nothing more than a bunch of immature people wasting their money on toy radios so that they can talk to each other with far greater power than allowed on CB radios, and tell tall fish tales about all their overseas contacts. Most people I've talked to don't even know that ham radio operators are licensed by the FCC.



It has become quite obvious just how uneducated our general public is concerning amateur radio. Most people really don't know exactly what we do let alone what we're capable of doing. Granted, ham radio is a hobby. But it's a hobby that not only helps the local community, but the world as well.

Take for example the recent Hurricane Andrew disaster in Florida.. How many people really know the vital role that ham radio operators played in providing the necessary communications required for coordinating the relief efforts? Granted, Governor Gilies did publicly acknowledge the efforts of the amateur community, however the media covering this ceremony was restricted to TV stations in only three Florida cities, and newspapers only in the state of Florida. What about the rest of the United States? As a matter of fact, how many people outside of the amateur radio community even know that it's ham radio operators with our so called "toys" that help people all over the world to pick up the pieces whenever disaster strikes.

To be perfectly honest I would not be the least bit surprised at the number of people who don't even know that our own club is responsible for coordinating the communications for summer splash, one of the biggest summer events in the Lehigh Valley. And for those few who do know the role we play in this day long extravaganza of public fun in the sun., do they really know what all is involved?

While pondering on this dilemma of public awareness I can't help but wonder what can be done about better educating the general public. I look at our club newsletter and see printed boldly in the banner an ARRL emblem with the wordsSPECIAL SERVICE CLUB that our club has always done it's best to serve the community, and to educate ham radio operators, but shouldn't we also be trying to educate our community? I know that not everyone has an interest in ham radio, but that doesn't mean they should be left in the dark about what ham radio is.

I know the club is always running classes for Novice/Tech or General licenses, and we do occasionally give demonstrations of amateur radio, but these always seem to be geared toward recruiting prospective ham radio operators (and in the end club members), and not toward educating the public. I'm not saying that we never tried to educate the public, but obviously the efforts we have made have not been enough.

Since we have a club which boasts a roster of well over 300 members, one would think that among all the committees for all the events we do we would have some sort of public relations committee who's responsibilities would not only be community relations, but public education. Since we can always find time to hold classes to teach people how to become ham radio operators, why can't we have an occasional lecture simply to tell people what ham radio is.

These are only a couple of ideas, and granted they may not be the best. But it would seem to me that with a club as big as ours somebody should be able to come up with something. And it sure would be nice to see articles in our newsletter telling members what we've done to educate our community, instead of those rather regular articles from disgruntled club members concerning other club members repeater etiquette.

73 de Dennis, N3JNV

Digital Communications

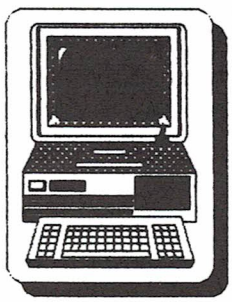
by Joel, K9TBD

Specifications of an Algorithm List

Plus - So many lines

An Algorithm is a sequence of steps, however long yet finite, to find the solution to a problem.

With the proliferation of computers and software, and, the proliferation of packet stations one gathers text in abound. After looking through all of the text for something of interest you find that - the good stuff passed by on the screen and you would really like to [bracket] that 'key phrase' +/- a few lines of text. Unfortunately there is no easy way to do that on our PC's or larger systems as a system utility. Here is a specification of that little utility - could be written in any language - but the function would be the same.



How many times have you asked, Gee, I saw my pet key word 'FLYERS' in that file but bye the time it crossed the screen it was too late? I have written many (now commercially available routines) to do just that - find a chunk of text and - 'expand around it' - to see what context that phrase resided.

Example: "I want all references to 'packet' in the recent news I just downloaded from CompuServe." Do you have a utility to do that? Some operating systems will give you that answer - using something like GREP or its variants.

But, "I would like" - say a few lines before and a few lines after the occurrence of the phrase 'packet' regardless of case. Upper and lower case can sometimes be important! Here is the specification of such an algorithm. An algorithm is nothing more than a complete specification of how to do something- regardless of how long it takes to accomplish. Here is the specification of LP (standing for List Plus - so many lines). If your imagination gets carried away, you could make a specification for LW for 'list window' that would list the file from the finding of the text (-) so many lines to (+) so many lines- of course listing the line of interest.

The Algorithm for LP:

1. Every Algorithm has to start with a START
2. Get a bunch of parameters - why not, the user doesn't know how many!
3. Since LP is going to ask for [string] [filename] and <count> the following:
4. Let's see if there are at lease two parameters on the command line: namely

   a) the string that the user is looking for - and

   b) the file name of what the user wants to look through - and; optionally

   c) the length of the text presented after finding the occurrence of the string - if omitted - see below.
5. Question: Did the user supply at least two of the three required para's? If not, perhaps the user should be prompted with a little tutorial on how to use this program. I.E. type the INSTRUCTIONS.
6. If at least the "string " and the 'filename' were provided, then at least one could figure out that one should look for the "string" in the text.
7. But what if the file name was typed wrong or doesn't exist. Instructions.
8. If the number of lines desired after the occurrence of the string wasn't specified, then there probably should be some default - say 10 lines?
9. What happens when one hits the end of the input file?

Well you can see, it is what if after what if. Perhaps you now get an idea why even commercial software has 'bugs' in it. If all the tests required to solve an algorithm are extensive (like so many large programs) there is no human way - and no computer way to check all of the combinations to see if the results are always correct.

There is an interesting article in the most recent Scientific American on the tractability of checking out very large problems (algorithms) with a limited subset of tests (randomly chosen) so that the probability of not uncovering a flaw in the algorithm is diminished drastically. There is a catch though: to describe an algorithm in strict mathematical terms may take 10 or 100 or 1000 times as many statements as the original algorithm, so the process of describing the problem in a strict fashion may also be intractable. So even if there is a small amount of checking required to validate an algorithm, it requires coding the problem in a huge number of statements.

The algorithm I described above is a nice utility which you may wish to implement in any language. For the novice programmer, it sounds so easy, but look at all the 'ifs'. Play with it. An experience is awaiting.

de Joel, K9TBD

SENDING TRAFFIC BY PACKET

by Paul, N0KIA

ARRL EC Lehigh County

Ed note: For those of you who missed Paul's excellent talk at the January Meeting, I am reprinting a copy of his information.

For those of you who would like to place an NTS formatted message onto the system using packet, here is a sample of an NTS formatted message ready for transmission. I created it as text file using my editor, then sent the file to the local PBBS. I do it this way so I can check it before sending it out, however you can type the lines in while on packet. It just increases your connect time and chances for error.

ST 20642 @ NTSMD
QTC CLEMENTS 301/534
NR 54 R N0KIA ARL9 NEFFS PA 2153Z JULY 13
RALPH KELLEY
2314 CULPEPER LANE
CLEMENTS, MD 20642
301 534-1714
BT
ARL FIFTY THREE MESSAGE X
EVERYONE HERE DOING FINE
BT DAD AR
/EX

Let me explain the lines. Line one says Send Traffic to ZIP code 20642 in the state of Maryland (MD). You could just as easily type this in while connected to the PBBS, but I put it in the file and send it as part of the file. The next line is the response to the PBBS's request for a Title. It says "A piece of NTS traffic (QTC) for the city of CLEMENTS. The addressee's area code and exchange are 301 and 534 respectively.".

We already know the state from line 1 (remember NTSMD), and it's not necessary to give the whole phone number - the area code and exchange are enough for anyone listing the traffic to see if its a local call or not.

From line three on the message is standard NTS format. Line three, for instance, says this is my message number 54 (NR54), the priority is Routine (R), my call, the message count and an identifier indicating that an ARRL numbered radiogram is part of the message (ARL9), the place of origin, the time and date in UTC. The time is optional, but I put it most of my messages. The time is always used in emergency, priority or H&W messages for tracking. The four following line indicate who the message is going to and a complete phone number. The BT is the packet equivalent of "Break" on phone message handling or -...- in CW. It means "This is the breaking point between header (lines 3 thru 7) and text." On phone you'd stop here to see if the receiving station needed any fills in the header. On packet, we put it in just to be consistent with the other modes. Remember, this message may be taken off packet and passed on another mode before it reaches its destination.

Lines nine and ten are the text of the message. Text is normally entered five words per line to simplify counting at the receiving end. ARRL message number fifty-three means "Received your _____. It's appreciated; many thanks.". The following word, "message" is inserted into the blank space. The initial X-RAY is used to signify a period (.). Note that there is no trailing period in the message, it's understood to be there. So, the complete text of the message is:

"Received your message. It's appreciated; many thanks. Everyone here doing fine."

The next BT is the break between text and signature, and the following line is the signature, in this case "Dad". AR is the prosign for end of message.

The /EX tells the PBBS that this is the end of the message. You could also type this in manually, but again, I put everything into the text file beforehand so I can check it and send everything with one fell swoop of the keyboard!

There are two good visual aids that you can get from the ARRL by writing and requesting them. Also, most hams who have handled traffic in the past have extra copies in their shack and may part with them for the asking. The pubs are FSD-3, The ARRL Numbered Radiograms and FSD-218, Amateur Message Form, Prosigns and Q signals. In addition, the ARRL Operating Manual has sections on Packet and NTS traffic and The ARRL Net Directory has a good section on how to format NTS traffic and get it onboard the packet system. Most of the data above was extracted from the Net Directory articles. Good luck and If you need more help, just call on .70, .135, or the phone (760-1635).

73, Paul, N0KIA

All Amateur Radio Operators are invited to Participate to 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 Wednesdays at 7:00PM

DLARC INFORMATION LINE 820-9110

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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 Clarence Snyder, W3PYF, Editor..717 Porter Street, Easton, PA 18042

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