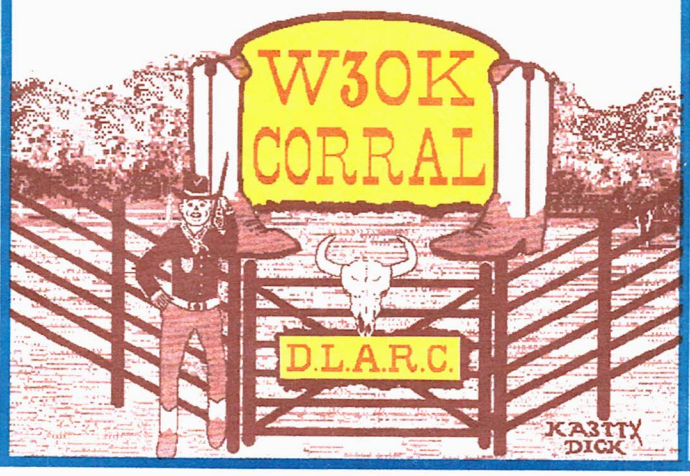
DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC. W3OK

April 1, 1993



SPECIAL SERVICE CLUB

ARRL Affiliated Club

WHAT IS HAPPENING IN CONGRESS
from ARRL Bulletin 23.

On Tuesday, March 2, the U.S. House of Representatives adopted H.R.707, The Emerging Telecommunications Technologies act of 1993. The legislation had been reported out, without amendment, by the House Committee on Energy and Commerce. The bill requires the Federal government to release 200 MHz of frequency spectrum for commercial use to foster new technologies in the private sector, with at least 180 MHz to be below 5 ghz.

It is virtually identical to legislation that was adopted by the House in 1991, but that did not make its way through the Senate during the 102nd Congress.

In recommending adoption, the committee report said "an example of the dilemma that spectrum managers must face due to spectrum congestion was provided several years ago, when the commission was forced to reallocate two megahertz of spectrum that had been utilized, on a secondary basis, by the Amateur Radio Service. The Amateur Service has established an impressive record of providing lifesaving emergency communications during natural disasters and accidents, when more conventional methods of communications were rendered inoperable.

"Yet because of the lack of alternative, the commission was forced to take away these two MHz in return for giving the service 'primary' access to an adjacent three MHz band. Passage of H.R. 707 will alleviate the pressure to take more spectrum from the amateur service by providing frequencies for new technologies in other bands."

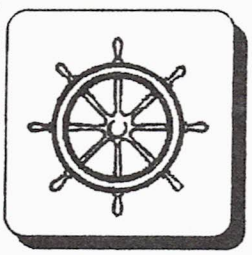
The House Bill differs somewhat from similar legislation introduced in the Senate by Senator Inouye, S. 335, Which includes authority for the FCC to assign spectrum in certain services by auction and also includes specific protections for the Amateur Service that were sought by the League during the previous session of Congress. As yet, there has been no action in the Senate on S. 335.

If the Senate adopts the Inouye bill in something resembling its present form, the ARRL will encourage the conference committee that resolves the differences between the bills to include those protections.

More information on S.335 Will appear in April QST.

LOCAL HAM CROSSES ATLANTIC
by Bill, K3ANS,

Last summer, Dick Schaeffer, a Delaware-Lehigh ARC, member and recently licensed novice (KB3ALG) sailed a boat from the Azores to Spain. During the trip he was in radio contact with Rick Johnson, W3BI.



At the April meeting, he will show a video on these contacts with an inverted V suspended from the mast. He will also talk about some modern forms of electronic navigation such as GPS (Global Positioning System), Loran C (long range navigation), and collision avoidance such as a radar reflector and C.A.R.D. plus SAR equipment (two classifications -- one @ 121.5 - 243 MHz. and the other at 406.25 MHz.)

Dick has been boating for some 25 years -- mostly on the Chesapeake Bay and is currently the proud owner of a 1902 Herreshoff 47' Sloop. For those who are not aware of what a Herreshoff is, Captain Nat Herreshoff is the gentleman who built the winning Americus Cup boats from 1888 to 1936. The boat's name is Woodwind and is on the National Maritime Registry as an antique.

Bill K3ANS, DLARC Program Chairman >>

MEETING, APRIL 1st in the Northampton Auditoriuum, NCCC 7:30 PM.

HAMFEST IN THE WORKS

by Bill, K3ANS, Chairman

We have an approved ARRL hamfest scheduled for August 15. Write it on your calendar. Now we must start work on individual committee projects. I want to review your ideas and coordinate your work ASAP. I have info to help you. Please contact members of your committee from 1992 to determine if they want to work again for 1993 hamfest in same capacity. We need to discuss the new exciting Career Institute of Technologies facilities, responsibilities, and opportunities. Known committee chairman:

Bill Goodman, K3ANS -- Hamfest general chairman
Ray Bilger, W3TDF -- Site chairman
Tom Dow, N3EBH -- Technical industry exhibits cochairman
Arnold Hansen, W3BPP -- Technical industry exhibits cochairman
Bob Kratz, KU3K -- Forum chairman and in charge of computer data base of past attendees and bulk mailing
Bob Puharic, WF3H -- General chairman emeritus 1992 , ARRL inventory on consignment.
Tom Frobase, N3LLL -- Vendor chairman
Dave Vogel, N3JGX -- Tailgaters chairman
Ken Gruver, N3IYX -- Parking chairman
Robin Moseley, WA3T -- President, Over all Boss, and Cochairman of forum on Introduction to Ham Radio.
Chris Hornaman, NU3L -- Cochairman of forum on Introduction to Ham Radio.
Ray Bilger, W3TDF -- Chairman of Forum on Contesting, especially on PA QSO Party
Bob Puharic, WF3H -- Chairman of ARRL Forum; keynote speaker: ***Kay Cragie, WT3P,*** Vice Director of Atlantic Division of ARRL.
Harlan French, N3IUW -- Chairman of committee to obtain door prizes and gelt from major dealers and manufacturers.
Dick Dech, KA3MOU -- Treasurer
Carl Schafer, N3GRK -- Chairman of security
John Greenage, WX3C -- VE Chairman
Charles Snyder- Career Institute of Technology official contact person for DLARC: tel. 215 258 2857. Please do not call him without talking to K3ANS first, to avoid duplicate pestering.
Michael Donio, K3NWN-- Publicity Chairman
Dennis Hockstrasser, N3JNV-- Communications chairman, in charge of setting up the talk-in station, on grounds communications and a demonstration Low band station.
John Holmes, Secretary
Norm Zoltack, K3NZ, Official printer

WOW, What a cabinet. President Clinton did not do this well in his selections! Many, many others of DLARC have offered valuable advice and have offered to work. Thank you, thank you. Please contact the chairman of the committee which interests you most. After April 30, we shall contact all members and assign a committee for each of you . So to beat the DRAFT, please make your selection soon.

Remember this club as 400 + members, so many hands make light work and more fun. This sure beats digging into you wallet and paying more dues. Then we can continue to expand DLARC services, equipment, and programs to meet your desires.

All DLARC officers and directors not already mentioned above are encouraged to join in the policy planning and work in the trenches too. All members must help publicize and promote our hamfest. Talk it up on the air. We have plenty of flyers for you to mail with your QSL Cards, display at work and take to computer and radio stores and distribute at hamfests.

If I missed someone it was not deliberate. I am just practicing for the day I too get senile. Any more suggestions, please call me: home 215 258-5063, office 215-253-2745, packet: W3MM, 147.495/441.050 OR on the DLARC Packet BBS, W3PYF-3 on 144.99.

73, Bill Goodman, K3ANS >>



** CONTEST CALENDAR **
by Barry, KU3X

Apr 3- 4	SP DX Contest
	Spring QRP ARCI CW QSO Party
Apr 5	ARRL VHF/UHF Spring Sprints 144 Mhz
Apr 10-11	JA Int'l CW Contest (High Bands)
	Holyland DX Contest
Apr 13	ARRL Spring Sprints 222 Mhz
	W1AW Qualifying Run 35-10 WPM
Apr 14-15	DX-YL to NA-YLRL CW Contest
Apr 17-18	MARAC SSB County Hunter's Contest
	SARTG Worldwide AMTOR Contest 1993
Apr 21	ARRL Spring sprints 432 Mhz
Apr 24	W1AW Qualifying Run 10-35 WPM
Apr 24-25	Helvetia Contest
Apr 28-29	DX-YL to NA-YLRL SSB Contest

CONTEST TIP #11

A good quality microphone is mandatory for contesting. Usually the stock microphone that comes with the radio is not the contester's choice. If you own a Kenwood or an Icom, try one of the Heil elements. For Kenwood radios use the Heil HC-4 element and for the Icom line you would find the Heil HC-5 element to be the best choice. Also, Shure 444 and the Astatic 10 D are good choices. The object of the microphone game is to attenuate the lows and enhance the highs of your audio. The High Boost control on the Kenwood TS 850 S does just that.

de Barry KU3X

MARCH, 1993 VE SESSION

At the March VE session, 13 candidates took a total of 22 elements.
There were four upgrades, and two new licenses...

Andrew R. Young, N3NNH upgraded to Extra
Charles J. Osborne, N3LXF upgraded to Advanced
Walter Talbott, II, N3MHWupgraded to Advanced
Richard Schaeffer, KB3ALG upgraded to Technician with HF

George C. Cook	**New Technician**
Brian S. Brader	**New Technician**

Additionally, five candidates gained element credit towards new licenses or upgrades.

VEs in attendance at this session were John, WX3C; Tom, N3EBH; Hank, NX3R; Jeff, AI7D; Bob, KE3AW; John, N3IGA; and Robin, WA3T.
The next session is on April 2nd. Team 4 will be in attendance.

73 de Robin, WA3T, Team Liason Alternate.

LANDLINE BBS HAS HAM PROGRAMS
by Lynn, KB3FN

I am the sysop of The Abundant Life BBS, a IBM-PC based land-line bbs here in the Allentown, PA area. I have a fairly good listing of Ham files (149 and still uploading) in two program bases, as well as two Ham related message areas. I have setup a 'GUEST' log on setup. Use any Baud Rate to 9600..

Just enter the word HAM when asked for LOG ON: and enter the word GUEST when asked for PASSWORD.

There is a HELP section if you might not be familiar with LL-BBSing as well as a USERs MANUAL for downloading. Or E-mail me for help.

Of course anyone could setup a permament user account if they so wish.A single user account file will allow better user customization. The bbs is always in a mode of change and expansion, so if it's not what you like stay tuned - as they say.

The telephone number is: 391-1612.
de Lynn - KB3FN

COMING ATTRACTIONS

Within the next few months, Dick, KA3MOU and I will be working on the club database to enter all the license expirations for members.. We will then print three months before the expirations a list in the OK Corral, a warning. We thank Bill Fahs, NC3P for preparing the program to do it.. Both Dick an I have the complete listings from Gettysburg FCC.

73 Clarence, W3PYF (ye old man)

WILL WE BE PROTECTED?

from ARRL Bulletin

A Telecommunications bill to free up government spectrum for commercial use, introduced into the new U.S. Congress, contains important protections for Radio Amateurs. The Bill, S. 335, Is a revised version of s. 218, Which was not acted upon in the last congress. During the last, 102nd, Congress, the ARRL suggested six possible amendments to S. 218 to mitigate the effect of releasing for private use government frequencies, some of which Radio Amateurs occupy on a shared, secondary, non-interference basis. Five of these six proposed amendments were incorporated into S. 335.

Senator Daniel Inouye (D-HI) introduced S. 335, "The Emerging Telecommunications Technologies Act of 1993," on February 4, saying:

"Senator Stevens" (co-sponsor from Alaska) "and I have incorporated some changes to accommodate concerns of the Amateur Radio Industry. I am happy to include these changes in order to protect the rights of Amateur Radio users to their spectrum."

The changes made as a result of the ARRL initiative are as follows:

1. The bill makes a "finding" that "a reassignment of federal government frequencies can be accomplished without adverse impact on Amateur Radio licensees that currently share allocations with federal government stations."
2. In determining whether a frequency reallocation is feasible, the Secretary of Commerce shall "seek to avoid excessive disruption of existing use of Federal Government frequencies by Amateur Radio licensees."
3. One basis to be used in determining whether commercial use of a frequency is feasible is to be "the extent to which commercial users can share the frequency with amateur radio licensees."
4. The Advisory Committee convened to review and advise upon the secretary's report shall include representatives of "other users of the electromagnetic spectrum, including radio and television broadcast licensees, state and local public safety agencies, amateur radio licensees, and the aviation industry."
5. The President may, on certain grounds, substitute alternative frequencies or bands for those chosen. Among the grounds on which he may act is "the reassignment will disrupt the existing use of a federal government band of frequencies by Amateur Radio licensees."
6. Competitive bidding authority given the FCC under this act **"shall not extend to Amateur operator services...."**

"These changes go a long way toward addressing amateurs' concerns about this legislation, and clearly establish that our needs must be considered as the bill proceeds through the congress," ARRL Executive Vice President David Sumner, K1ZZ said.

HOAX

IT IS EASY TO USE TWO METERS!!

by Don, KO2J

Sources say a 19 year old will not face federal charges after falsely reporting a plane crash via 2 meters on the evening of January 25th.

On the evening of January 25th and the early morning hours of January 26th, Western New York hams monitored and responded to distress calls originating on a frequency of 146.220 MHz. The individual reported that he was involved in a light plane crash in northern Niagara county. Transmissions continued for nearly 4 hours. Local amateurs worked closely with local police, fire and other agencies in an attempt to locate the downed aircraft. Emergency personnel searched the rural area for 2 days and after discovering nothing, declared it a hoax.

The next day, the Niagara County Sheriff Dept. was told by a local electronics store, that an individual had purchased a handheld amateur transceiver the day of the hoax and had returned it to the store the next day.

After amateurs had supplied authorities with a tape of the event and direction finding data gathered on that evening, a local 19 year old pleaded guilty to 3rd degree false reporting of an incident. He could face 90 days in jail and a $500 fine. Under federal charges he could have faced a $10,000 fine and a year in jail. Estimated cost to the county for the search is in excess of $60,000.

By the way, the person who falsely reported the incident.....is **NOT AN AMATEUR RADIO OPERATOR!**

REMEMBER, THIS WEEKS MEETING IS IN THE THEATER AT NORTHAMTON COMMUNITY COLLEGE..talk in on 146.70

DIGITAL COMMUNICATIONS

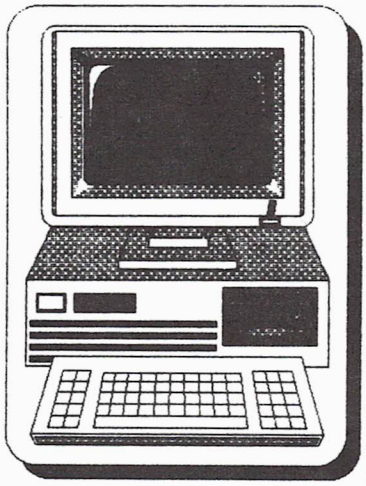
JOEL, K9TBD, DIGITAL EDITOR

Guest Editor, N0KIA

THOSE DOS COMMANDS

FIND is Fine!

There are some little used but very powerful DOS commands which you may be interested in. **FIND** is one of them. Although it's function is available in many add-on programs, such as Norton or XTree, you my find yourself working on a computer someday without these gee-whiz gadgets. That's when your knowledge of how to use the power already in DOS will work to your advantage. If you find this article of interest, I'll continue on with the other less known commands in future columns.



The **FIND** command looks for strings in ASCII files. Strings, for the true novice, are just collections of letters. "My dog has fleas." is a string of 17 characters. "This computer has bugs!" is one of 23. Any word or combination of typeable characters may make up a string, the computer doesn't care. "WS37YH0G" and "I'm nuts" are both valid eight character strings. So, these are what **FIND** looks for in a file. An example would be: "**FIND** "West" STORY.DOC". I'm placing what you would type inside double quotes, so ignore them. Don't, however, ignore the quotes around the word West. They are required by the **FIND** command. In this example, **FIND** would search the file STORY.DOC for every occurrence of the word West and print the line containing it to your screen. You could also search multiple files, but you must type in each filename separately. "FIND "Harry" LETTER1.DOC LETTER2.DOC LETTER3.DOC" is a valid **FIND** command, but "**FIND** "Harry" LETTER*.DOC" isn't. We'll see a work around for this weakness when we talk about the FOR command next month.

The results of the **FIND** command are displayed on your screen. It will list the file it is currently searching, then any lines that contain the string you specified. Be aware that it searches each line separately, and won't find the string if it wraps around a line boundary. That is "**FIND** "All dogs have fleas." STORY.DOC" will only find the lines that contain all four words and the period, but will miss finding the string if "All dogs have" is on one line and "fleas." is on the next. In that case, you'd be better just searching for "fleas", something most dog owners do anyway! In addition, you could search for FLEAS, Fleas or fleas by using the "ignore case" option in **FIND**. The command would then look like "FIND/I "fleas" STORY.DOC"

FIND is useful for finding stings, but it can also be used to count the number of times a string appears in a file. Just use the /C modifier when you type the command. "FIND/C "Widget" ORDER.DAT" would print a count of the number of lines containing the word "Widget" and not the lines themselves. What happens if "widget" appears more than once on a line? Only the first one gets counted, then on to the next line. A little more creativity would yield "FIND/C/I "widget" ORDER.DAT" which would find all forms of Widget, not just all caps or lower case.

FIND can also display, or count, the number of lines NOT containing the specified string. The /V command does that. So, to display the number of lines in the file CHAPTER1.DOC not containing the word "computer" in any of its forms, use the command "FIND/V/I/C "COMPUTER" CHAPTER1.DOC".

Finally, **FIND** can display line numbers if you need them for further searching in a line editor or such. Just use the /N modifier. The line number will appear at the left of the line in square brackets. Okay, we've looked at the trivial examples of using **FIND.** What are some practical examples? By itself, you may find little use for **FIND,** but in concert with other DOS commands, it can do real work. For instance, you know there's a file in your directory in which you reviewed "Snyder's Home-Made Potatoe Chips", but you can't remember the filename and all your files are named CORRAL01, CORRAL02, etc.,. Well, team up the **FIND** command with the FOR command and redirection (described next article) and you'll get:

"FOR %T IN (CORRAL*) DO FIND/I "HOME-MADE POTATOE" %T >>FINDFILE"

The above command would have created a file named **FINDFILE** and you would just look there for the associated string and filename (Use TYPE FINDFILE | MORE). A bit cumbersome, I know, but better than searching each file manually. Okay, so Norton could have done it in a few seconds. Remember, we're learning the DOS commands to use in an emergency (that flea bitten dog just ate your master copy of Disk Doctor and you didn't have a backup...shame shame) or just to broaden our understanding of how these infernal machines work anyhow.

Let's review this discussion. **FIND** is useful in finding words in ASCII files. It can display the lines containing them, count them, number them, or ignore them and count all the other lines. It needs the complete text string to appear on a line together, and it won't work if the string is broken over a line boundary. It WILL work on multiple files, BUT wildcards aren't allowed in the FILE command. Each file's name must be typed in the command. And finally, **FIND** is most useful when used in concert with other DOS commands. Direct any comments, questions, or corrections to me on packet or via USPS. I'm in the directory - just use the **FIND** command!

73, Paul, N0KIA

The second part of this series will appear in the May Issue of the OK Corral...

DXCC LOOKS TO FUTURE

from ARRL Field Form

Field checking of DXCC endorsements (currently only INITIAL DXCC applications may be checked in the field), contingent on the continued reduction in the DXCC backlog at Headquarters, is projected for sometime in 1994. In the three month period November 1992 - January 1993 the DXCC backlog was reduced by one third.

Sometime in 1993 the DXCC Branch expects to authorize field checking of ALL NEW DXCC applications (currently only INITIAL applications are eligible for field checking.

Finally, in-person checking of DXCC QSLs both at Headquarters in Newington and at conventions and hamfests now is limited to 110 cards. This change is in fairness to other applicants waiting for their cards to be processed.

In other news, the DX Advisory Committee has voted 10-6 to recommend deletion of Abu Ail from the ARRL DXCC Countries List, effective March 31, 1991, the date that the Red Sea Islands Company resigned from management of the lighthouses on some of the islands. Since Yemen now appears to administer the islands, they no longer meet the DXCC rules "separation from land" requirement.

And the DXAC is asking for input from DXers on a suggested DXCC rules change regarding QSLing practices. Interested parties are invited to submit, to ARRL HQ, examples of "poor QSLing practices" and changes in the rules, by August 31, 1993.

73 de Bill/WA3SCW

Ax25 Link Layer Format

WHAT IS IN A PACKET?

From Don, W3LR

Link Layer packet radio transmissions are sent in Frames. Each frame is divided into ***FIELDS***. Frame transmission is normally proceeded by 16 bit reversals for synchronization . The frame consists of a beginning flag, address field, control field, network protocol identifier (PID), information field, frame check sequence (FCS), and an ending flag..

Flag Field.

Each frame starts and ends with a ***FLAG*** that has a unique bit pattern. : 01111111110. To assure that this pattern only appears at the beginning and end of frames, the sending station inserts a 0 bit and the receiving station removes it when ever 5 "1 bits" show up anywhere else in a frame. This is called zero insertion bit stuffing.

NOTE: It is the length if these "1 bits" that constitute the flags sent during TXDelay times. The longer the TXDelay the more "1's" sent before sending the address field. It is this address field that indicated the station callsign you are connecting to. If the transmitter is not transmitting to the distant station by the time the address field is sent, your station does not know who the information field is for.. Therefore a retry....

Address Field.

The ***ADDRESS FIELD*** consists of from 2 to 10 specially encoded Amateur Radio Call signs. The first address is the intended receiving station, and the second address is the source or originating station. If the two stations are in contact, that's all there is to the address field. If not , the call signs of 1 to 8 relaying stations or digi's may follow.

Each callsign takes up six character spaces. Call signs are made up of UPPERCASE alphanumeric ASCII characters; shorter call signs are padded with ASCII spaces. The seventh character, called a SECONDARY STATION IDENTIFIER (SSID), permits up to 16 different packet-radio stations to operate under one callsign.

Control Field

The *CONTROL FIELD* contains a bit pattern that indicates the kind of frame it is (information or supervisory) and a frame number (o to 7) for acknowledgments. It signals a connection request, ready / not-ready conditions, frame numbering and the specific mode of operation.

Protocol Identifier

The ***PROTOCOL IDENTIFIER FIELD*** (PID) is actually part of the information field, It only appears in information (I) and unnumbered information (UI) frames and identifies the kind of network-layer protocol, if any, that is in use.

Information Field

The ***INFORMATION FIELD*** (I field) contains data to be transmitted. it can have any integral number of octets, form 1 to 256, of information. Octets at the beginning of the I field may be used for addressing and control of those levels by the network- and higher protocol levels.

(Text, Binary Data, or anything exchanged from one station to the other)

Frame Check Sequence Field

The ***FRAME-CHECK SEQUENCE*** (FCS) is a 16 bit number calculated by both the sender and the receiver of a frame following an algorithm published in ISO 3309 (HDLC). Upon receipt of a frame , the receiver calculates FCS on the basis of the received data and then compares its answer with the FCS calculated by the sender. If the two match, that frame is acknowledged. The end Flag follows the FCS. (It is this frame Check Sequence that is the "CHECKSUM" count and if the checksums do not agree then a retry again is initiated until checksum's are equal to what was sent, This is the error correction at work on the information exchanged)

The preceding is a reprint of information presented in the 1993 ARRL Radio Amateur Handbook pages 19-39 and 19-40 .For better documentation.

de Don, W3LR

Bells and Whistles

A LETTER TO THE EDITOR

Dear Repeater Users.:...

Sometimes many of you may hear strange and different responses coming from the repeater controller. This controller that is the heart of our 146.700 and 444.900 repeaters, has many different and WONDERFUL things it can do. BUT ! Yup here comes the BUT ! Our vast and varied coverage area provides the opportunity for the sick ones to surface.. Therefore most of the bells and whistles are turned off. An example of this is the need to turn off the "Emergency Autodialer" off during the morning hours so the sick ones do not bother County Radio.

Today I was in the process of checking the time setting on the Repeater Controller Clock, and then the receiver sensitivity. I checked the Talking "S" meter and the response was as expected. After my check, Bill, K3ANS brought up the question of letting the USERS use this function. My response was "programmed" by the past years of experience. However, upon some considerable consternation, I softened my position on user usage of the "S" Meter readback option. I will consider enabling the "TALKING S METER" provided the Board of directors agree, AND there is no abuse of this feature. I EXPECT AND DEMAND PROPER PROCEDURE TO BE FOLLOWED OR IT GETS TURNED OFF !!!!!

The Proper procedure and protocol is "Key up and announce your callsign, Drop the PTT and listen until the repeater carrier drops, Key up again , press 8 on your touch-tone pad for 2 or 3 seconds, then let the PTT drop again, the controller will read back your signal strength, after the readback again sign your callsign..

If this protocol is NOT followed the function will NOT be made available to the users....!!!!!!!!!

de Don Curtis , W3LR
Member of Repeater Committee.

APRIL MISCELLANY

by Robin, WA3T, President DLARC

At the last club meeting, we discussed the desirability of extending the "hang time" of the repeater during a weather alert, as a way of emphasizing the priority of emergency traffic, and making it easier to break into a conversation to report an emergency. I would like to make it clear that the starting point for this discussion was not any existing problem in the use of the repeater, merely a possible way of improving our response to emergencies.



The way we use our repeaters is an ongoing debate, because there's a delicate balance between underuse and overuse.

On the one hand, we have about 400 members: that's about a minute per member per day on 146.700.

On the other hand, that's obviously not the way it works! Not all our members use 2 meters. Of those that do, many are otherwise occupied for much of the day.

So the machine is available; use it! There's nothing wrong with rag-chewing on "70", at any time of the day. Repeaters, and particularly our "70" repeater, serve the important social function of binding us together as a group. Repeaters can't do this if they're not used, and they can be counter-productive if some members feel nervous about using them. All our members should feel comfortable and welcomed on the repeaters. The only criteria are common sense and courtesy; Repeater Etiquette 101!

On another subject... There will always be some turnover in our membership, partly because people's level of interest in ham radio fluctuates, and partly because our club may not meet everyone's needs.

We'd like to know more about why people leave the club, so that we can change things (if we can) to make the club attractive to the widest possible cross-section of the ham community.

This isn't a financial question: we are financially strong, and will remain so. We'd like to know why people leave because we view the club as the servant of the amateur radio community, and we want to be as responsive as possible to its needs.

Your Board would like to form a Membership Retention Committee, to follow up with people who choose not to renew their memberships. Not to "sell" them on rejoining, not to "bug" them, but to honestly find out their reasons for leaving. If you have ideas about this, or would like to help, please speak to me or any other member of your Board.

We are always looking for ways to encourage members, new and old, to become more involved in the running of the club. Please start with the assumption that your help is needed and welcomed.

Rick Shevalier, N3NXF, made that assumption. As a new member, he recognized a need for an information packet for new members (and maybe some older members, too!) with key facts about the club; club functions and committees, the club HF station, club repeaters, the use of the phone patch, and similar information. Rick didn't just realize the need for this information package; he volunteered to spearhead its creation.

Our club will survive just so long as there are members like Rick who will step forward and take an active part in running it. Don't wait to be asked: if there is a job that you see needs to be done, jump right in. It's fun, and a great way of making new and interesting friends.

73 de Robin, WA3T

IMA LIDD

Efficiency

by Van, K3CP

"Hello, Elmer," said Ima Lidd. "It's good to see you. I have a question for you that we have discussed before, but I would like to cover it again."

"OK," replied Elmer. "I will gladly go over it again. What is the subject?"

"It's about efficiency. I would like to know what it is and how it is measured."

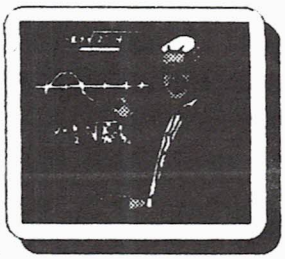
"That should be easy to understand. The word means to perform or function in the best possible and least wasteful manner. If you could get something to work with no waste at all, you would have one hundred percent efficiency.

"Let's look at a machine for example. It takes a certain amount of power to make it work. We can measure efficiency by the power it takes to make it run versus the power it produces. A motor is used to convert one kind of energy to another. It takes static energy (at rest) and converts it to kinetic energy (motion). If the kinetic energy equaled the static then we would have a machine that was 100 percent efficient. So, efficiency is equal to the power produced divided by the power consumed. The formula is a simple one - Eff. = Power out/Power in."

Ima asked, "What keeps the motor from being 100 per cent efficient?" "It is not 100 percent because of losses. Not all the input power is converted to useful work due to heating caused by the resistance of the motor windings and the friction in the bearings."

"How about radio circuits? We get 1 kilowatt of power from some of our amplifiers with only 100 watts of drive power. That is an efficiency of over 100 percent."

"No, Ima. you're confusing drive power from the exciter with the power input to the final amplifier. A linear amplifier runs at about 60 percent. To illustrate this let's look at the actual power input to the final amplifier. In the above case it would take .75 amps. and 2225 volts or 1668 watts to get 1000 watts output. The exciter itself has a similar loss of efficiency in producing its 100 watts. Another example is the automobile. It is very inefficient and someday we will have to produce a different kind of engine to run our vehicles. Transformers are the most efficient machines that we use as there are no friction losses since there are no moving parts." Ima said, "I understand. If we could achieve 100 percent efficiency, we could build a perpetual motion machine."



"Yes, that's right. Let me tell you a story that I read. Many years ago an English nobleman was trying to build a perpetual motion machine. He tried eliminating friction and heat losses, but nothing would work completely. He used the most advanced ideas without success. He did create a lot of interest in his experiments and developed a reputation throughout the scientific community. Other scientists who were working on the same problem went to visit him and observe his experiments. At first he welcomed them and had long conversations with them about their common goal. However, the number of visitors grew in number to the point that he couldn't get any work done. Many of them were just curious and had no contribution to make. No matter how much he pleaded with them to let him alone, they continued to come.

"He then relocated his experiments and equipment to a remote building on his estate. This was only a temporary solution to escaping the crowds as they soon discovered his new location.

"He finally became so angry and frustrated that he set fire to all the apparatus and the building itself. It is still burning!"

"Wow," said Ima. "That was an interesting story. Thanks for it and all the information on efficiency. I feel that I now have a better understanding of the subject."

"You're welcome, Ima. I enjoy these sessions and hope that we can continue them. Keep asking the questions."

PS. In response to many questions about Ima Lidd. Ima is a YL. At least for the time being as she is getting married. She will soon become an XYL as she is marrying an electrical engineer whom she has been tutoring. His name is Henry Nolonga. Her married name will be.....

de Van, K3CP

PLEASE HELP THE LEAGUE HELP US

by Robin, WA3T

Now that many people use cable TV, TVI has become less of a problem than it used to be. But electronic devices such as VCR's and telephones can still be a problem, and low power "Part 15" devices are springing up like weeds!

In Europe, all consumer electronic devices must pass tests demonstrating that they are reasonably immune to RFI. There's usually only a small cost difference between a product which is susceptible to RFI and one which is reasonably immune; perhaps a capacitor or two in the right place. Unfortunately the FCC has chosen not to take a leadership role in this, so our market is being flooded with products which, for the sake of a few pennies, are prone to RFI.

To help inform its individual members, and to make it possible to bring pressure on manufacturers, the ARRL is trying to create two lists.

The first is a list of electronic telephones and other devices which are particularly susceptible to interference.The second is a list of well-designed devices which are reasonably immune from interference.

These two lists, particularly the list of "good" devices, will be very useful to us hams, for deciding what to buy for our own homes, and also for helping our neighbors who may be having problems with poorly designed electronics devices.

The ARRL has asked for our help to put these lists together.

If you have, or know of, consumer electronic devices which are unusually susceptible to interference, let the ARRL know. On the other hand, if you have equipment with better than average immunity to interference, they need to know about that, too. Please take the time to write to the ARRL, listing the type of equipment and the manufacturer's name and model number. (But don't forget to say whether the equipment is unusually good, or unusually bad!) By helping with this project, you will make a difference to the future of amateur radio in this country.

The person to write to is Ed Hare, KA1CV, Senior Lab Engineer, ARRL, 225 Main St., Newington, CT 06111.

Ed has compiled a bunch of (almost) free stuff, including a revised "RFI Tips" package with appendices listing filter sources, VHF notch filters, a short list of EMI-resistant telephones, telephone-manufacturer contacts and miscellaneous sources of EMI products.

If you would like one of these packages, send a request to the ARRL Technical Department Secretary and ask for the "RFI Tips" package. Include $1 for mailing.

EMI/RFI Package - Consists of the EMI/RFI General Info handout, the EMI/RFI Resource List handout and the EMI/ RFI Consumer Pamphlet (postage is 98 cents on this one, too). The ARRL has the following EMI/RFI leaflets available for the price of a large-size SASE:

EMI/RFI Automotive - A reprint of the GM and Champion EMI pamphlets.

EMI/RFI Bibliography - A comprehensive QST topical bibliography 1945-present.

EMI/RFI CB - This handout information is designed to help with non amateur interference problems, including CB.

EMI/RFI Computer - A single sheet of information about computer EMI.

EMI/RFI General Info - A discussion about the personal and "quick-fix" technical aspects of EMI. It contains the EMI/RFI Report Form.

You may want to get this information now. Even if you're not currently having RFI problems, one of your neighbors may buy a highly susceptible product tomorrow: be prepared!

73 de Robin, WA3T

GUILTY, VERY GUILTY AND IT WILL COST

Jorge Mestre, NS3K, of Fairfax VA, pled guilty today to knowingly and willfully communicating a false distress signal, resulting in the U.S. Coast Guard launching a major search and rescue operation on August 7, 1992.

Mestre will surrender his FCC amateur radio license, dispose of his amateur radio equipment within 60 days, and make immediate restitution of 50,000 dollars to the U.S. Coast Guard. Sentencing is set for May 7.

Mestre could receive up to six years imprisonment and a fine of up to 250,000 dollars.

The FCC used direction finding data, detailed signal analysis of the transmissions, and other information to identify Mestre's station as the source of the false distress messages. Mestre is also suspected of having been involved in at least three additional falseness in the last few years.

from ARRL Bulletin

MSYS BBS BULLETIN BOARDS & HOW TO USE THEM..

by Vic, N3IQD

Editors note: With the use of this system on the W3PYF-3 (DLARC) Packet Msys, system, I have asked Vic, N3IQD to give a few hints on the use of this addition to the DLARC facilities.

The List command lists selected message headers. The following formats are available:

L - List messages since you last used the B command
LB - List bulletins (all of them, use with care!)
LM - List messages to or from you (List Mine)
LN - List messages with type of N (List Not read or forwarded)
LO - Lists msgs older then date given as YYMMDD
Example: LO 910204
LT - List NTS Traffic messages
LL # - List the last # messages
Example: LL 10
LU - Lists unread messages to you
L< callsign - List messages from callsign
Example: L< WA8BXN
L> callsign - List messages to callsign
Example: L> WA8BXN
L@ callsign - List messages being sent to BBS callsign
Example: L@ WA8BXN
L # - List messages >= given number
Example: L 827
**L ## ** - List messages from # to #
Example: L 50 75
L"string"- Lists messages with given string in title (case insensitive)
L'string' - Lists messages with given string in title (case insensitive)
Examples: L'Pfb' L"ID's" l"Modem users"

Note: Messages that are Private are shown only to Sender or Addressee.

[OPTIONAL]

---> If @BBS part is omitted then if the station has entered a Home BBS (NH command) that BBS will be used. Otherwise the to station callsign will also be used as the @BBS if it is a known bbs. In general you should enter an @BBS!

If you know the state of the destination, you should add it to the @BBS call you give, with a period between the @BBS and two letter state abreviation.

NOTE: AT may be substituted for the @ sign
Examples: S W1XXX @W0YYY.CO
S NT8V AT NT8V.MI.USA

You will next be asked for a title for the message.
After this you type the message, keeping all lines less than 80 characters. When you are done with the message type ^Z or /EX on a new line.

Use SB to send bulletins, ST to send traffic, etc. All messages sent to a specific callsign will be treated as if you used SP (send private). To make messages to a specific callsign readable by everyone use SB instead of just S!

HINTS:

When sending any message to a distant destination, put the **CITY, STATE** and **postal Code**(if known) as the title of the message.

When sending NTS traffic use **ST postalcode @NTSxx (xx is state or province).**
Example: ST 44026@NTSOH



---> You may also send a message as a reply to a message on this system by using the **REPly** command. You type **REP #######** where ##### is the message number you want to reply to. You do NOT specify an @BBS as it will be determined from the message you are replying to. If you put a period after the msg number, a title will automatically be generated for you of the form RE: and the original msg title. You can se the REPly command to reply to private messages or bulletins. Example: REP 12345.

The Abort command can be used to abort the output from many of the BBS commans, like Download, List and Read for example.The U cmd lists the current users of MSYS and what they are doing.

The UP Command may be used to upload ASCII files. You must be authorized by the SYSOP to upload files. After you use the UP command you will be asked the file name to upload. Follow the prompts given by the command.

The Bye command disconnects you from the BBS. Use it when you are done!

de Vic, N3IQD

ATTENTION!!!!!!

WE NEED YOUR PLUS FOUR ZIP

For mailing the newsletter, in order to make sorting by the US Post Office, check your mail label. If it does not have 4 numbers after your zip code, pleae get it to either W3PYF or KA3MOU. It is very important! Check your utilities bills: PHONE, ELECTRIC, or GAS, it should be on there..

thanks, Clarence W3PYF



The Delaware-Lehigh Amateur Radio Club, Inc.

HAMFEST & COMPUTERS

Sunday, August 15, 1993

Career Institute of Technology, Easton, Pa.

Vendor Set-up at 6 a.m. Open to Public at 8 a.m.

ADMISSION: $3.00 Advance $4.00 at the Door

Spouse admitted free

Tailgaters: $7.00 ($6.00 Advance) $15.00 Inside Vendors

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- Electronics Test Bench
- Introduction To Ham Radio

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For more information please call Bill Goodman, K3ANS - Hamfest Chairman
Office (215) 253-2745 or Home (215) 258-5063
Also call DLARC Answering Service at (215) 820-9110

(over) **Talk-in 146.70 W3OK Repeater** (over)

Name_____ Call_____ Date_____

Address_____ Number of advance admission tickets @ $3.00_____

City_____ State_____ Zip_____ Number of advance tailgate tickets @ $6.00 _____

Telephone ( ) _____ - _____ Number of Inside vendor tickets @ $15.00_____

Make checks payable to Delaware-Lehigh ARC, Inc.

TOTAL AMOUNT ENCLOSED $_____

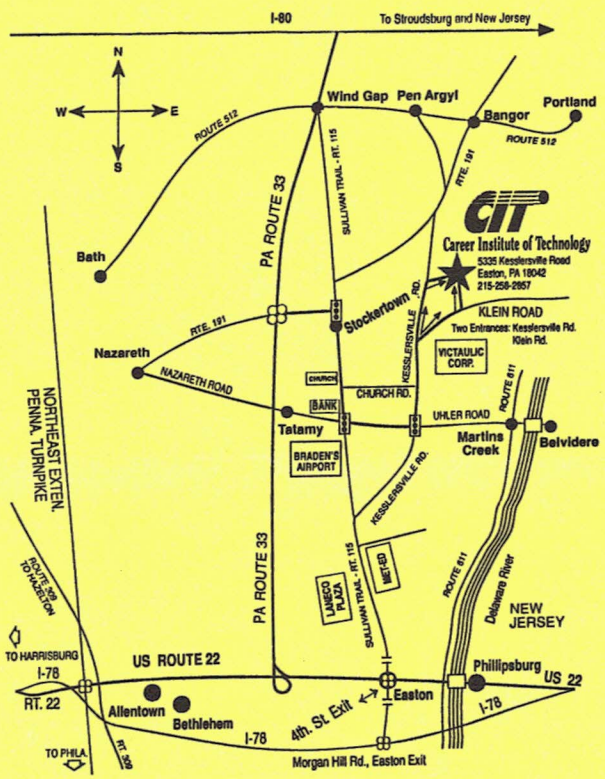
Mail To: The Delaware-Lehigh ARC, Inc.
RR 4 Greystone Building
Nazareth, PA 18064-9211

Career Institute of Technology

Formerly The
Vocational-Technical School
Eastern Northampton County
5335 Kesslersville Road, Easton, PA 18042
Phone (215) 258-2857 Fax (215) 258-0805

CIT OPEN HOUSE

Student Clubs will rent tables and sell food & groceries. (There is a ShopRite store inside). Starting at 1 p.m. CIT will have its technical shops open for visiting with the instructors. These will include Electronics, Machine Tool Technology, Plumbing, Heating, Ventilation, & Refrigeration, Printing & Graphic Arts, Information Systems Technology, Welding, Automotive, Building Trades, Allied Health Science, Carpentry & Cabinetmaking, Computer Application & Computer Aided Design Technology, Electrical Construction & Maintenance, Auto Body Repair, etc. In addition, Technical Businesses are invited to set up displays.



NEW LOCATION

DIRECTIONS TO CAREER INSTITUTE OF TECHNOLOGY

FROM HARRISBURG:
Take I-78 East. Where I-78 and US 22 split, bear right after the Fogelsville Exit onto US 22 East towards Whitehall and the ABE Airport. Follow US 22 East to PA 33. Take PA 33 north to Stockertown Exit (Route 191). At end of exit ramp turn right. Follow Route 191 North for 150 yards to traffic light. Turn right onto Sullivan Trail. Follow Sullivan Trail south for 1.5 miles to traffic light(Merchants Bank is on right corner). Turn left at traffic light onto Uhler Road. Follow Uhler Road for 1 mile to traffic light. Turn left at light onto Kesslersville Road. School is located 1 mile north on Kesslersville Road on the right side.

FROM NORTHEAST EXTENSION OF PA TURNPIKE:
North from Philadelphia or South from Wilkes Barre-Scranton.
Exit Northeast Extension of PA Turnpike at Lehigh Valley exit onto US Route 22 East. Follow directions above from US 22 East..

FROM NEW JERSEY:
Take Interstate 78 West. Exit onto US 22 West at Phillipsburg, NJ. Follow US 22 West through Phillipsburg, NJ, cross over Delaware River Toll Bridge, continue on US 22 West (past Easton, PA 25th. St. exit) and continue to PA Route 33. Take PA Route 33 North and follow directions above.

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1993 HAMFEST ANNOUNCEMENT

The Story of the Little Red hen

(and about values, the work ethic, the right and wrong things and about responsibility!)

Once upon a time, there was a little red hen who scratched about the barnyard until she uncovered some grains of wheat. She called her neighbors and said, "If we plant this wheat, we shall have bread to eat. Who will help me plant it?"

"Not I," said the cow. "Not I," said the duck

"Not I," said the pig. "Not I," said the goose.

"Then I will," said the little red hen. And she did.

The wheat grew tall and ripened into golden grain. "Who will help me reap my wheat?" asked the little red hen.

"Not I," said the duck. "Out of my classifications," said the pig.

"I'd lose my seniority," said the cow.

"I'd lose my unemployment compensation," said the goose.

"Then I will," said the little red he. And she did. At last came time to bake the bread.

"Who will help me bake the bread?" asked the little red hen.

"That would be overtime for me," said the cow.

"I'd lose my welfare benefits," said the duck.

"I'm a dropout and never learned how," said the pig.

"If I'm to be the only helper, that's discrimination," said the goose.

"Then I will," said the little red hen. She baked five loaves and held them up for her neighbors to see. They all wanted some and, in fact, demanded a share. But the little red hen said .. . "No, I can eat the five loaves myself."

"Excess profits," cried the cow.

"Capitalistic leech," screamed the duck.

"I demand equal rights," yelled the goose. And the pig just grunted. And they painted `unfair' picket signs and marched `round and `round the little red hen, shouting obscenities.

When the government agent came, he said to the little red hen, "You must not be greedy." "But I earned the bread," said the little red hen. "Exactly," said the agent, "that is the wonderful free enterprise system. Anyone in the barnyard can earn as much as he wants. But under our modern government regulations, the productive workers must divide their produce with the idle." And they lived happily ever after, including the little red hen who smiled and chuckled, "I am grateful, I am grateful."

But her neighbors wondered why she never again baked bread!

supplied by Dave, WD5BRP

A DOGS LIFE

by Tim, N7PQZ

Hello All..

I just completed reading an article in one of the wonderful Amateur Radio magazines.. In this article, the author mentions going outside one day and finding his 9913 laying on the ground with bite marks in it which reach all the way to the center conducter..

Well I work in the field of Cable TV (I know, ICK).. I see dog chews almost every day, and I know why dogs do it....

No, its not because the vibrations of the cable hurt the dogs ears..

No, its not because they like the taste of the cable...

No, its not because they just want something to chew...

It's because that darn dog is SMART!! The poor pooch sets there watching you, His master, His idle, His best friend, doing nothing but watching TV and playing on the radio.. That pup is setting there saying to himself, 'How am I going to get a little attention here?' So he thinks to himself, 'AH HA!!!

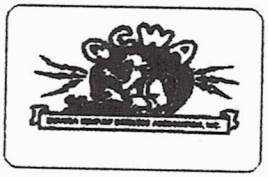
That piece of coax that is attached to the side of the house which is vibrating and hurting my ears is where those TV and radio signals are coming from... I'll just chew it all up and then Daddy will HAVE to take me for a walk because his toys won't work anymore!!!'

So, Now you all know why dogs chew coax...
Have you walked YOUR puppy lately????

De Tim N7PQZ

WHAT IS THE 'QCWA'?

by Ray, W3TDF



It's the Quarter Century Wireless Association, which is semi-descriptive. We are the old timers of ham radio. (Also the old-old timers, like Clarence!) The requirements for membership are rather simple. You must have been FIRST licensed at least 25 years ago, and (2) must be currently licensed. (You need not have been licensed continuously!)

Chapter 17 (Allentown-Bethlehem-Easton), is one of almost 200 Chapters which operate under a charter from the National Organization, to which you must belong in order to be eligible for membership in a local-Chapter. Other Chapters that are close-by are; Delaware Valley (Trenton,NJ/Morrisville area) and Gunderson/Penn-Jersey (Bangor/Tamaqua area). Also several in the Reading area.

Further information on Chapter 17 can be had by talking to me on .70 or by packet msg on W3PYF-3 BBS.

73. Ray, W3TDF,

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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1992-1993
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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

The W3OK CORRAL

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