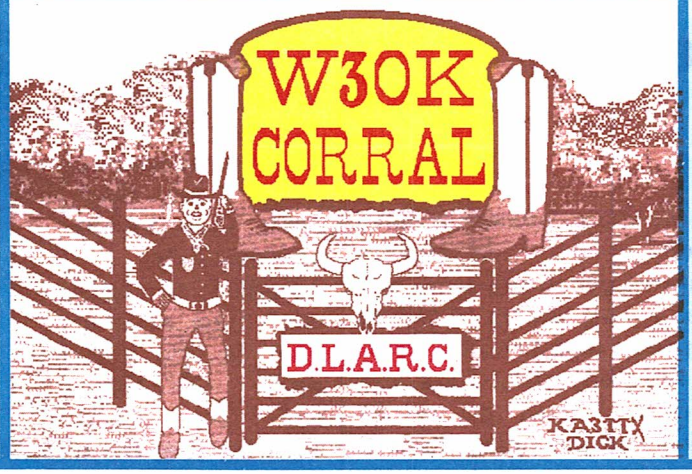
DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC. W3OK

March 1997



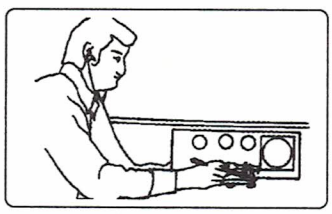
SPECIAL SERVICE CLUB
ARRL Affiliated Club

QRP RIGS and HOW TO MAKE THEM GROW

QRP rigs and how they work

by Len, N2BSC

Even thought I've been licensed since 1981, most of that time (other than occasional VHF contacts) I



was inactive on H.F. with only about 2 H.F. contacts under my belt. At the **March 6th meeting at NCC in KIVA Hall** of the **Delaware-Lehigh Amateur Radio Club,** I will tell how I got interested in QRP, (low power operation.

Over the years I had accumulated a nice Transceiver, Rotator, and Tri-band beam. I never installed these items, so I wouldn't even qualify as an equipment operator, just a collector. Eventually, I just sold the stuff cheap. After all, I wasn't using it, didn't even know how to.

About two and a half years ago, Joe W3JD encouraged me to join **DLARC** and. I took advantage of the spirit of camaraderie offered by its members. Several suggested that since I no longer had any equipment, why not build it myself. With their input and assistance I have put my own modest station on the air. Virtually every piece of equipment is H.B (home built or home brewed).

I did take several electronics courses in college but until recently I could have been arrested for loitering in front of a test bench. Since I have started building, all that theory has started to come back, but this time it actually makes sense.

I would like to share with you some of the basic information that I have learned about building equipment. Most of the stuff out there is actually based on simple circuits so you don't need to be an engineer to build it and get it to work. There's a fairly healthy market of kit suppliers and part providers who are very helpful and do a lot to support our hobby.

There are at least a half dozen clubs and organizations focused on QRP (low power) amateur radio. Some of these design, prototype, and produce kits for their members. By the way, low power does not mean low fun factor.

I'll bring some color slides of my various projects along with lists of suppliers and organizations. You can bring the questions, just don't make them too technical, you see I rely on my DLARC friends for most of the deep technical stuff.

de Len, N2BSC

Novice-Tech Classes to start

Do you know of anyone interested in getting their Novice-or Technician classes.

On Monday, March 17, the Novice-Tech classes will begin and run for 10 weeks, again in the **Greystone Building at Gracedale.** Each two hour session will provide one hour of theory and one hour of code practice.

Persons interested in more details should call the DLARC Information Line at 820-9110 any time, day or night, and leave the information requested so a packet of information about the classes can be sent to them.

Study guide books will be available for purchase at the class. For those wishing to purchase a book in advance, we will be using the ARRL published **"Now You're Talking."**

Daring to dream:

The nerds fantasy

by George, AA3JU

I am lucky enough in my course of employment to have an opportunity to do some traveling on the company expense account. On my journeys I get to see some cool stuff and get a chance to talk to some pretty neat people. Many times the things that I see and the people I meet get me to thinking and the times alone in airports start me to dreaming. As a ham and a technical kind of guy these dreams oft times turn into realties.

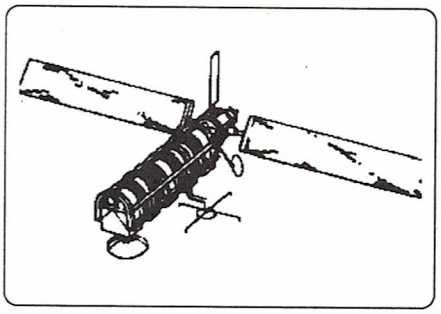


Recently I flew to Huntsville, AL and while there visited Space Camp. You may have seen the movie that was made about this facility. I was enthralled at all of the displays and equipment that was there. All in all a totally first class job. There is a whole Shuttle and Saturn V rocket along with other manned and ballistic type rockets there. Simulators of every sort including an Apollo trainer that you can sit in. It was really amazing how small a space these fellows flew in barely more than a coffin on top of a large sky rocket! I grew up with these space missions and a lot of memories came back, the dreams of a 10 year old boy when man first walked on the moon.

I went to the airport later that day still reminiscing about my misspent youth. I remembered all the old tube type TV sets I dismantled carefully for the parts, the radios I built with them and my dreams for the future. While getting ready to board my flight home a spotted a fellow with a most unusual jacket on. It was festooned with every manner of NASA mission patches on it. I considered the man that wore it for a moment, it was obvious that he was a nerd just like me so I struck up a conversation with him.

Turns out that this fellow with the impressive jacket and thick eyeglasses name was John and he had come by these mission patches quit honestly as he was a project manager for the new international space station project. He is in charge of structural integrity of this station. I started our conversation asking about the future of SAREX and ham radio's place in space in the future. We talked about many things on our short flight from Huntsville to Atlanta. We spoke of radio and stars and nuclear powered rockets, folding space and going to the far reaches of space. We sat and dreamed together. But not the dreams of fantasy the dreams of how it would really work how it could be done. These were not the musings of two strangers but more a modestly technical bull session on how to achieve the impossible. I wish I had more time to talk to him it was really pretty enriching.

What does this all have to do with ham radio? Well in toady's hobby I don't know really. One of our tenets is that we will provide a pool of technical experts. Sadly I just don't see it. Our pool has unfortunately dwindled to little more than a damp spot on the sidewalk. Old timer and new comer alike say that the technology is too baffling for them to understand. We walk in to the ham radio store plunk down our visa cards and buy some little gadget that will allow us to bow dutifully three times daily to the repeater god. And sadly rather than dream what could be done we are willing to sit idly by and complain about why something is impossible. It seems that somehow we have lost our way and with it our dreams.



I think that the answer lies within all of us that the dreams really are still alive. Do you walk through the first hamfest of the season with lots of new projects to try? Have you been spending the cold winter months studying propagation? To steal Microsoft's new catch phrase "Where do you want to go today?" Please don't be content to yack with the same guys about the same stuff day after day. If you could do anything in ham radio what would it be? Why not do it! I am going to do just that. I have at least a dozen new projects ready to go. Everything from a new design low band receiving antenna to an inexpensive satellite array. (Hey when John and his buddies get that bird in the air I want to talk to them!)

I ended my conversation with John by saying that I knew for sure that we were in the golden age of technology and that it was a great time to be a nerd. He agreed and I said that the only thing that I regretted was that I probably would not live long enough to see all the things that I was sure would happen one day. But then hey who knows? Anyway I plan to be around long enough to jump on a space transit to Mars or Jupiter one day and maybe John will be there on that flight I know he is planning on it too. And when I meet up with him again on that day do you suppose I will be able to tell him that ham radio helped get us there some way? I sure hope so and some part of me tells me that I will. Well that's about it for now I must run along now as I have a death ray gun I need to get working on.

73 de AA3JU.

<u>Attention all members:</u>

The directory that is with your copy of this newsletter will not be included with exchange copies.

Readers needed by Handi-Hams

The Courage Handi-Ham Center needs volunteer readers to record ham radio books and publications on audio tape. Volunteer readers provide a valuable service to persons with severe physical disabilities and sensory impairments who cannot use regular printed books.

Volunteers should hold an Amateur Radio license and be familiar with hobby terms and expressions. A clear speaking voice and the ability to read the written text of Amateur Radio books and describe the diagrams and pictures are essential.

This volunteer work can be done at home and at your own as long as there is a quiet place to read. For more information please contact:

Courage Handi-Ham System

3915 Golden Valley Rd

Golden Valley, Minnesota 55422

or call them at (612) 520-0515. They also have an easy to remember e-mail address. It is simply:

handiham@mtn.org.

thanks to Amateur Radio Newsline

My teeth hurt!

A man went to his dentist and complained that his dentures, less than a year old were all pitted and rotting away. After examining them the dentist asked what he was doing that was different and he replied that the only thing was he developed a strong passion for hollandaise sauce, "eat it on everything now even my cereal in the morning."

"That's it" replied the dentist, "We'll make you a new set out of chrome."

"Chrome?!, why chrome?" the man asked.. the dentist answered,

"There's no plates like chrome for the hollandaise."

For Sale

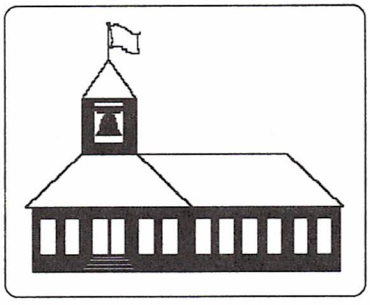
Kantronics KPC-3 for sale. it is in excellent condition, no scratches, has a 5k mailbox, all manuals and original box. asking $70.00

If interested call **Darrel, N3NNI @ 610 258-6644.**.

Demonstration station at school

by Bob, KE3AW

On Monday, January 27, seven Delaware-Lehigh Amateur Radio Club members set up a demonstration station, answering an invitation from Nick Tylenda, County EMA, and Clarence/W3PYF, County Emergency Communication Officer, to show students what we do and how we are associated with Northampton County Emergency Management Agency. This was done as part of the Career Day event at St. Anne's School in Bethlehem from about 11 am until 2 pm.



We set up an HF station and a 2-meter VHF station, and we made numerous radio contacts. Using the club's G5RV mounted on the school's roof, HF operation included a variety of contacts to stations stateside, in Canada, and in Europe. CW contacts were a particular attraction to many of the students. We may have some hams from St. Ann's in the not to distant future.

With VHF, using a j-pole antenna on the roof of the school, we had a source of local amateur radio operators for the students to talk with. We estimate at least 50 fourth through eighth grade students eagerly talked on the radio. No mike shyness there. They really were eager to talk! We thank all the club members who took time from their schedule to chat on the air with the students. Ray/W3TDF even pulled double duty, operating with us on VHF and HF.

We appreciate the time and efforts of the following DLARC members who spent a good portion of the day with us and helped establish the DLARC station, operate it and/or help with the tear down of it. They were: **Dick/KA3MOU, Barry/N3NVA, Garry/N3PNT, Clarence/W3PYF, Jeff/N3QZT, Dave/N3XGE, and Bob/KE3AW.**

St. Anne's school personnel and Nick Tylenda have expressed their appreciation to DLARC for our part in making their Career Day a success.

P.S. *The storage box of station supplies (coax, ropes, antennas, connectors, etc.) that* ***Ken/N3IYX*** *put together really helps in putting a station on the air in a minimum amount of time.*

de Bob, KE3AW

Contest Calendar

by Barry, KU3X Contest edtior

Mar 1-2	ARRL SSB DX Contest
Mar 8	Young Amateur's Contest
Mar 8-10	QCWA SSB QSO Party
Mar 9-10	Wisconsin QSO Party
Mar 14-15	CLARA & Family HF Contest
Mar 15-16	BARTG Bermuda Contest
Mar 15-17	Virginia QSO Party
Mar 22-23	Alaska QSO Party
Mar 29-30	CQ WW SSB WPX Contest
Mar 31	Low Power Spring Sprint

Exchanges:

ARRL DX Contest: Signal report and State, DX gives signal report and power.

Wisconsin QSO Party: Signal report and QTH

Bermuda Contest: Signal report and number

CQ WW WPX Contest: Signal report and serial number starting with 001.

de Barry, KU3X.

U-NII vs. HAM RADIO

Amateur Radio Newsline #1017

A new wireless personal communications service is coming. One that could signal the end to logging on to the internet using wired phone lines. And that could have an impact on amateur radio. The FCC has issued a Report and Order creating a new service called U-NII. Unlicensed wireless devices will operate using three 100 MHZ wide bands at 5 GHz. U-NII may cause amateur radio growth to slow down. Here's why.

The ruling makes possible low cost and very high speed wireless Internet access over great distances. Up to several miles in some cases. As a result, you can expect to quickly see wireless 1.544 Mega bit per second radio links severely undercutting the costs of high speed lines from telephone service providers.

Once the high speed U-NII modems are available at computer supply companies, it will probably signal the beginning of an end to wired Internet access. It also means that more and more people with even a remote interest in communications will be using radio links to the Internet. That means fewer and fewer will want to study for even a codefree Technician class ticket to talk across town.

Ironically, the new U-NII service shares the already shared Amateur Radio allocation at 5.725 to 5.825 GHz. Under the new rules, the unlicensed radio modems may operate up to 4 watts of effective radiated power. They may use high gain directional antennas depending on the band.

The bottom line is that the general public now has access to high speed radio links to the Internet. This means that they can almost go anywhere and not be out of touch with the world wide web. Those who might have been even remotely considering ham radio as an adjunct to their computers will probably say, why bother. The FCC has now given us, license free, far more than they have ever given to any licensed ham. And they have given us a ham band to do it on.

Ironically, the no-code Technician class license was created in part to interest computer literate people in becoming hams. It never happened. Now what few might have come over will probably opt for license free U-NII instead.

(Via FCC release, various computer merchandisers.)

Thank you

de Dewi, N3FNW

Please express Ida's and my sincere "Thank You" to the membership of the Delaware Lehigh Amateur Radio Club for the prayer support during Bonnie's illness. we appreciated the cards and remembrances from many of the members when she departed this life.

I would like to come in person but at the present time my night vision is impaired and I fear the trip after dark. I rescheduled my visit to the eye doctor to the 31st of this month. I hope that he will be able to improve my vision so I will once again be able to participate in the activities of many organizations. Thanks again

Dave Williams (Dewi)

Editors note,

Dewi's daughter Bonnie died of cancer within the last month. The club sent a donation to the Cancer Society in her memory.

The bad conductor

submitted by Bob, KE3AW

If you like this, thank me. If you don't like it, tell my neighbor!!!The world's best and most famous conductor makes a small mistake while conducting the New York Symphony Orchestra.

The audience doesn't notice,the orchestra didn't notice either, but he knew he'd made the mistake and decided that he should retire.Once the performance had finished, he turned and faced the audience and said"Ladies and Gentleman, this is my last performance as a world class conductor. I'm now announcing my retirement.

"After a few minutes silence from the shocked audience, and orchestra too, he was greeted with boos and hisses. He walked from the stage, only to be met by his manager, standing in between two gorilla-sized bodyguards.

"Oh no you don't", his manager said, "you're not retiring."Forced backed to work by his manager, he endured week after week of conducting he no longer wanted to do. While lying in bed one night with his wife of many years, he turned to her and said "Dear, would you be able to get me a small hand-gun?" "Yes dear", she said, and he rolled over and went to sleep.Sure enough, at his next performance, the conductor began with the small hand-gun concealed in the his jacket. Once the concert had finished, he turned to the audience and said "I'm announcing my retirement for the second time. This is my last performance."

The tuba player from the orchestra stood up and shouted "You can't be serious!", and the conductor whipped out his hand-gun and shot the tuba player dead. It wasn't long before the police arrived and the conductor was taken away.Days later, the conductor was taken to court. "How do you plead to the charge of first-degree murder?", the judge inquired. "Guilty your honour", the conductor replied. "Do you realize that the sentence for first degree murder in this state is death by electrocution?",the judge added.The conductor thought for a moment, but came to the conclusion that death would surely be better than continuing on like he was.

"Yes your honour", the conductor said.While being strapped into the electric chair, one of the guards came to the conductor and said "You may have one last request before we terminate your life. What would you like?" After pondering for a few seconds,the conductor replied "A silver platter with a dozen bananas." His request was granted, and the conductor scoffed the bananas. The room was emptied, and the switch was flicked. The conductor's hair stood on end, but he survived!As one guard was about to the flick the switch again, he was stopped.

"He survived the chair and the law says we have to let him go. "The conductor left the building, only to be greeted by his manager and the two gorilla-sized bodyguards. "Back to work", his manager said. More weeks of forced conducting went by. Lying in bed again one night with wife, he asked "Dear, could you get me a grenade?" "Yes dear", she replied. At his next performance, the conductor waited until the end of the concert, the grenade tucked neatly in his undies. "For the third time, I'm announcing my retirement!", he yelled. The conductor took out the grenade, pulled the pin,and threw it into the audience. The grenade exploded, killing 23 members of the crowd. The police arrived, and he was taken away again. "You again?",the judge asked,"I thought I'd sentenced you to death not long ago?" The conductor shrugged.

"Ok,how do you plead to 23 counts of first degree murder?", the judge said. "Guilty to all counts", the conductor replied.While the settings were changed to triple the voltage of the current going to the chair, the conductor was granted another last request. "A silver platter with 2 dozen bananas" was his answer. He scoffed the bananas, the room was evacuated and the switch was flicked. It appeared that they'd manage to kill him this time, but their fears were realized when the conductor regained consciousness as they were about to remove his body.His manager and the two gorilla-sized bodyguards were waiting for him and he left the building. "Back to work."

The weeks dragged on, and the conductor had all that he could take "Dear, could you get me a missile launcher?", he asked his wife as they lay in bed. "Yes dear", she replied.It was all too much for the conductor, and he didn't even wait for the concert to start. "Damn you all!" he screamed, and launched a missile into the New York Symphony Orchestra, killing all 190 odd band members. The army was called in this time, and he was dragged away."Jesus Christ, you again!?! You're supposed to be DEAD!", the judge roared. The conductor just shrugged. "May I ask how you plead for 190 counts of first degree murder?" "Guilty as sin!", the conductor screamed, "the ****** deserved it!"The conductor was hauled away. A public announcement was issued to all local residents warning that there would be a short cut in the power. Meanwhile, the cities' electrical engineers were busy re-routing all the electricity they could into theelectric chair.

Once again, the conductor was granted a last request."Three dozen bananas on a silver platter", he said. He scoffed the bananas, the building was completely vacated, and the electric chair was activated by remote control, some 2 kilometres away.The building exploded, reducing it to rubble. They fished through the ruins to find the conductor's ruined body.

His funeral was held some days later and as the casket was being lowered into the grave there was a knock on the coffin lid. Women fainted as the conductor crawled out of coffin - alive!He was taken to a large press conference. One reporter stood up and asked

"You've survived three visits to the electric chair. How did you do it?"

"I've tried telling people before", he said.

"I'm just a bad conductor..

ARRL members asked to coment on license restructuring ideas

The ARRL Letter Vol. 16, No. 5 January 31, 1997

.ARRL members are being invited to add their ideas, comments and recommendations to those of the ARRL WRC-99 Planning Committee, which has suggested sweeping--and potentially controversial--changes to the Amateur Radio licensing structure in the US. On the table for open discussion and debate are proposals that include:

*** elimination of the Novice license**

*** creation of a new Intermediate license to replace the Technician Plus**

*** expanded HF privileges for Intermediate licensees, including phone on 160, 75 and 15 meters**

*** a 10-wpm General CW test (with more stringent testing standards for all CW exams)**

*** expanded phone privileges for General-class and higher licensees**

Details of the plan, discussed during the recent ARRL Board of Directors meeting in Albuquerque, New Mexico, will appear in March QST. The Board says it seeks comments from members to ensure that before any plan goes forward, it enjoys broad support from the amateur community. The Board will not act on the issue at least until its July meeting.

After its research revealed that as many as three Novices in four are inactive, the committee concluded that the Novice license is no longer useful. Although the committee would end the Novice license, its plan provides current Novices with an easy means to upgrade (via an open-book test) to the new Intermediate class license, which would replace the current Technician Plus. All present Tech Plus licensees would become Intermediate licensees. The Basic license would supplant the Technician license--now the hobby's most-popular entry-level ticket--with no changes in privileges. In addition, the committee's plan would phase out the current Novice and Tech Plus bands on 80, 40 and 15 meters, and replace them with new Intermediate-class allocations. The committee's consensus plan for Intermediate-class licensees calls for new CW bands on 80, 40 and 15 meters starting 25 kHz up from the lower band edge, digital and phone-band privileges on 75 and 15 meters and a 50-kHz phone or CW segment at the top end of 160 meters, plus expanded Novice and Tech Plus CW and phone allocations on 10 meters.

According to the proposal, Intermediate CW bands would be 3525 to 3700 kHz, 7025 to 7050 kHz, 21025 to 21150 kHz and 28050 to 28300 kHz. Digital operation was suggested for 3600 to 3625, 21100 to 21125 and 28100 to 28189 kHz. Phone privileges would include 1950 to 2000, 3900 to 4000, 21350 to 21450, SSB from 28300 to 28500 and FM from 29500 to 29700 kHz. Transmitter power for Intermediate-class licensees would be limited to 200 W PEP output (other licensees using these bands would not be limited to 200 W, however).

General-class and higher amateurs also would benefit from the plan, if it's adopted according to the committee's outlines. General-class hams would get additional phone privileges 3800 to 3850, 7200 to 7225, and 21250 to 21300 kHz; Advanced-class hams would add 3725 to 3775, 7125 to 7150 and 21175 to 21225 kHz; Extra-class hams would also have 3700 to 3750, 7125 to 7150 and 21150 to 21200 kHz.

With the exception of 40 meters, where Novice and Tech Plus licensees already have privileges, the committee suggested no changes on the hobby's narrowest and most crowded bands--including 20 meters and the narrow WARC bands at 30, 17 and 12 meters.

The Intermediate CW test would be 5 words per minute (the same as the current Tech Plus requirement), but the committee proposed that the General class CW requirement be set at 10 wpm. There still would be no additional CW exam for the Advanced ticket, nor would there be any change in the 20-wpm requirement for the Extra. Exams for all classes would include a return to a sending test and the requirement for one minute of solid copy during a five-minute test--instead of the current method that tests on the content of the CW text.

Right now, these major changes are only in the talking stage. "Let us be very clear about this," said ARRL Executive Vice President David Sumner, K1ZZ, who characterized the committee's proposals as a starting point for discussion, not a done deal. "The changes are not ARRL policy; nothing has been proposed to, or by, the FCC, and the ARRL Board is committed to making no decision before its July 1997 meeting." Sumner said there is no timetable to complete the process. Only after there is an opportunity for in-depth consideration and discussion by the membership will the ARRL Board consider taking the next step--to approach the FCC with a rulemaking proposal--a process that automatically invites additional comments and suggestions.

Between the time they receive March QST and May, members are asked to voice their opinions on the committee's suggestions to their directors, whose postal and e-mail addresses are listed on page 10 of QST. All suggestions and comments--positive and negative--are welcome..

editors note:

It is important that you contact your ARRL representatives and let them know your feelings. Use either EMAIL, USMAIL or Packet. Give them your positive, not just your negative feelings.

Cellular CW ???

by Rich , N3NXF

I just recently achieved a "rite of passage" akin to getting my first credit card. I joined the modern human race, I just got my first Cellular Telephone. The phone that I got on sale as part of my service agreement was a Nokia 638. It is quite a marvel of engineering, lots of buttons and lights, and all of its features are menu accessed (not unlike the amazing new mini HT's). Of course on receiving the phone I immediately began looking at all the features it has, and how I could "personalize" them.

I discovered that one of the things I could do was change the ring pattern. There are in fact 5 different rings available to the user. The phone was factory set to Ring #1 but as I scrolled through the various rings, the phone would play them twice so I could decide which one I liked. You can imagine my surprise and delight when Ring #5 came up as: Dah **Di Dah Dit...Dah Dah Di Dah (CQ).** I set that as my ring pattern, and I can tell you it is quite distinctive. For Hams with some knowledge of CW, it really cuts through any ambient noise and focuses your attention on the phone.

If you have a Nokia 638 phone here is what you need to do to set the ring to the CQ pattern:

1. Turn the unit on.

2. Press the MENU button and scroll using the up or down arrow until you see the words RINGING TYPE in the display.

3. Press the STO key.

4. Use the up or down arrow to scroll to Ring #5.

5. Press the STO button.

6. Press the CLR button.

If you don't happen to have a Nokia 638, it might be worth a look in the owner's manual for your phone to see if you do have a choice of Ringing Types. You may just be surprised at what you find.

de Rich, N3NXF.

Household Hint.. .After years of persuasion, my neighbor finally talked her mother into having a cataract operation. Returning home from the hospital, the mother sat down in front of the picture window, which looks out on a lake. Do you notice any difference in the view, Mom? the daughter asked. I certainly do.. .her mother replied.. .Don't you ever dust?

Prez sez

by Tom, N3LLL

A change of pace this year, the board and membership has decided to put aside the clubs traditional Hamfest and hold a 50th anniversary tailgate swap meet. The event will be organized in the fall. It will be a low overhead event allowing all of the club members to participate and have fun. The cost will be one dollar per person and two dollars per tailgater. **Ray / W3TDF and I** will be the co-chairs. The site has not been chosen yet, we would like to have a field or lot with easy access to Interstate 78 or route 22. If you have an idea give Ray or me a call.



Remember the April meeting will be the Auction, start shining those boat anchors. The club will keep 10% up to a maximum of $10.00 the rest is yours.

I want to thank **Danny / W3ZF** for a great program, he stumped all of us on some of his old rigs although my Collins KWM-2A is sitting next to me here in the shack.

Do you know where you are?

via internet

A guy was doing some lengthy research in a small fishing village in Vermont. One day a lobster fisherman offered him a chance to go along when he went out to check his traps if he could take the time away from his work. Well, since he had never seen any lobster fishing up close he quickly agreed to go.

While they were heading out to the lobster beds he noticed that they were cutting through the water at a fair pace. That made him a little bit concerned because they were passing huge rocks just a few inches below the surface, and only missing them by a foot or so. So, trying to keep things light he said to the fisherman,

"I guess you know where all these rocks are". The fisherman responded,

"No Sir, I don't, but I know where they ain't".

author unknown

Heard Island Expedition

Did You tune to 3799 or 14.195

by Jim, WA2ZGO

There is not enough space in this newsletter to express all my feelings about our deteriorating amateur fraternity. Did you tune to the above and wonder in awe as I did; who could possibly be at the other end of the radio you are sitting in front of?

Is it doctors, lawyers, teachers, health care people, business owners, politicians, clergy, firemen, emergency personnel, municipal employees; imaginable list could go on and on.

I would like to think, it is none of the above, but rather a low life type; a drone in the hive of nature, a useless member of society; who somehow was encouraged in error by someone's enthusiasm for our once great fraternity, to obtain his amateur license. Notice, I did not say her, since I for one have not ever heard a YL engage in this type of activity. I guess they are busy tending to much more important things in life.

There are of course, many other frequencies you can tune to and realize it would be impossible to entertain a friend or friends in your shack and attempt to convince them that this is truly a great fraternity and one which they might consider becoming a part of.

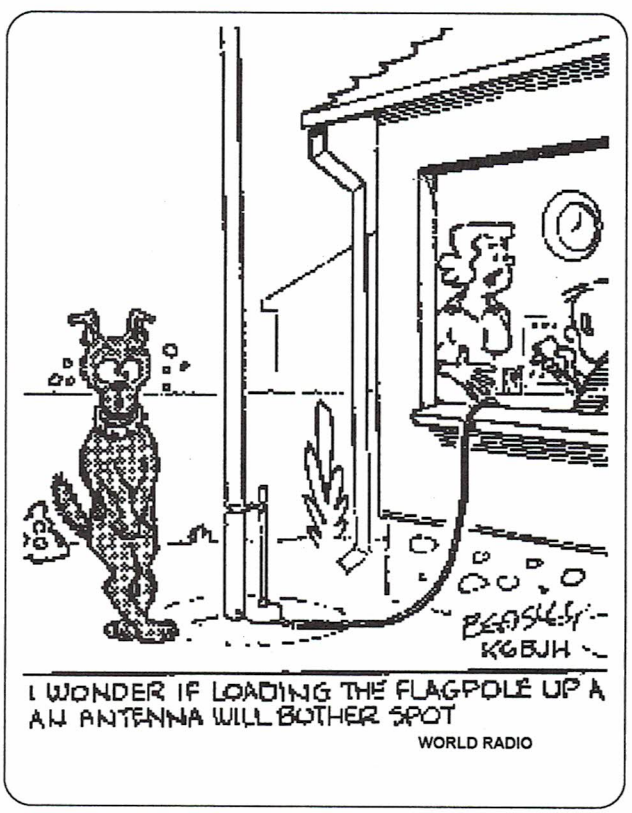
I would like to suggest to all of the respectable amateurs in our fraternity that they consider a phrase that is use in another organization which I belong. Be particularly careful not to recommend him or her, unless you are convinced that they will confirm to our rules; that the honor, glory, and the reputation of the fraternity may be firmly established, and the world at large convinced of its good effects. This is something that apparently has not been practiced by some and needs to be given attention.. I hope it is not too late to purge our fraternity.

I would like to think that most have felt the same as I, when I received my amateur license. A distinct feeling of accomplishment and humility, to be a part of a world wide organization which has had a great reputation; truly a King for a day. With this I close with a poem by an unknown author which I found to be very appropriate.

The Man in the glass

When you get what you want in your struggle for self
and the world makes you king for a day,
Just go to a mirror and look at yourself,
and see what that man has to say.
For it isn't your father or mother or wife
Whose judgment upon you must pass;
The fellow whose verdict counts most in your life
Is the one staring back from the glass.
You may be like Jack Horner and chisel a plum
And think you're a wonderful guy,
But the man in the glass says you're only a bum
If you can't look him straight in the eye.
He's the fellow to please, never mind all the rest,
For he's with you clear up to the end,
And you've passed your most dangerous, difficult test
If the man in the glass is your friend.
You may fool the whole world down the pathway of years
And get pats on the back as you pass,
But your final reward will be heartaches and tears
If you've cheated the man in the glass."

de Jim, WA2ZGO.

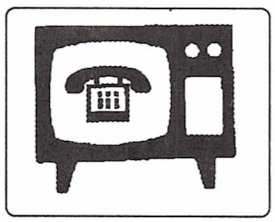


New Media Systems

Anatomy of a Digital TV Picture

By Joe Chuk, W3JD

The last column in this space (in the January issue) discussed the agreement struck between broadcasters and representatives of the computer industry on a digital television standard. It was noted there that the eighteen picture formats originally developed by the Grand Alliance (GA) to be included with the proposed standard were simply omitted, with the expectation that marketplace forces would determine whatever picture formats would prevail.



Those eighteen formats however, are actually just variations on four basic scanning formats, two for high definition television (HDTV) and two for standard definition television (SDTV -- a digital version of NTSC-quality signals). An article by Randy Hoffner in the January 30, 1997 edition of TV Technology provides a good summary of the differences among these formats, and the comparisons that follow are based on the information in that article.

Even though the NTSC system uses 525 lines for each frame, only 483 of them are active for the video that is seen on the screen. In the 4 x 3 aspect ratio of this format, each line has 720 horizontal pixels.

One of the HDTV formats in the GA system doubles the pixel density of the NTSC system (to 1,440 for a 4 x 3 line) and extends each line to widen the screen to a 16 x 9 aspect ratio, with a resulting line of 1,980 pixels. This format has 1,080 active lines, which is a little more than twice the 483 of NTSC. If the frame is interlaced at 30 frames (60 half-frames or fields) per second, this format produces 1,980 x 1,080 x 30 -- or about 62 million pixels per second. With progressive scanning at 60 frames per second, the pixel count is doubled to 124 million per second. With present technology, that amount of information cannot be compressed into the 19 Mbps data transport stream that was just approved. So the first format would only work with compression technology that hasn't been developed yet! Actually, we don't have cameras yet that can scan at this rate, either. The only way that the pixel-per-line definition of this first format can be achieved in the present is to stay with interlaced scanning, a vestige of the NTSC system.

The second HDTV format does use progressive scanning. It has 1,280 horizontal pixels on each of 720 active lines. At 60 frames per second, it produces about 56 million pixels per second.

Technically, this format doesn't cross the 1,000 lines-per-frame threshold that usually defines high definition, but its frame rate does put it in the high definition category for quality of picture. Moreover, it can be sent along a 19 Mbps data stream.

A frame of 704 pixels by 480 active lines comprises another format. Since this one is derived from the standard television scan rate of 720 by 483, it is an SDTV, rather than an HDTV, format. Unlike NTSC, but, it's a flexible format that can be scanned either interlaced or progressively at 60, 30, or 24 frames per second. It can use either a 4 x 3 or a 16 x 9 aspect ratio. Each of these permutations is considered a separate format in arriving at the eighteen format figure associated with the GA proposal.

The last format (or series of formats, with the permutations) is 640 horizontal pixels by 480 active lines that can be scanned either interlaced or progressively in three frame rates. If the numbers sound familiar, it's because this isn't a video format at all, but the computer VGA format. Ironically, this format was part of the GA system all along -- even while the computer manufacturers were complaining about the system's lack of compatibility with computer technology!

It was these four basic formats, along with their variations, that ended up being excluded from the compression and transmission standard approved by the FCC. Despite the absence of a regulatory requirement to follow these formats, however, it's extremely likely that at least the early digital television broadcasts will be in one or more of the scanning formats developed by the Grand Alliance. But the door is left open for devising other ways of producing picture information, and that open-ended aspect was what the computer manufacturers were aiming for in the first place.

de Joe, W3JD.

March 6 meeting location

Northampton County College

Kiva Hall

Wednesday 7:30 PM

Call on 146.70 if directions are needed.

Ham radio helps sick child

by Bob, WF3H

On Feb. 1, while listening to the maritime net, a station in Brazil **(PP8ZBL)** called in requesting assistance. The ham said they had a sick child and were looking for medical advice. Propagation was poor, and I was apparently the only one with clear copy, so I volunteered to put a patch through for help. Knowing that medical facilities in PA are prohibited by law from giving phone advice, I called on of our club members, **Jeff, KB2EVB** who is a doctor.



Jeff asked for information on the child's condition, and made recommendations for assistance. **PP8ZBL** said they would take his advice and if further info was needed they would request another patch.

Thanks very much to Jeff for taking time out on a weekend to dispense much needed advice, calming the fears of worried parents, and helping to show why ham radio still is a source of assistance around the world..

de Bob, WF3H

Computer RFI!

by Norm, K3NZ

I recently updated my computer in the radio shack to a Pentium 166, 32 Meg EDO RAM, Modem, etc., and joined in on the Internet crowd. It is a "clone type", bought and assembled at a local computer show. Everything went fine until I hooked up the interface to my Kenwood TS-950SDX to check for computer noise.



Much to my dismay the noise was everywhere! At 1.833 Mhz the noise was 10db over S-9, and somewhat less than that at many more places in the band!! I also found the noise at harmonic frequencies on 80 meters as well as other places on the band! You just can't tolerate that! First I tried using ferrite cores on everything coming in and out of both the radio and the computer, with little or no improvement whatsoever. I also tried disconnecting the power supply from the motherboard and the noise was still the same. At this point I recalled some information I had seen on Internet and the Packet Cluster about computer RFI being traced to the power supply so I decided to look into it.

Tyler, K3MM had put a message on the Cluster about a filter he installed on his power supply which eliminated his noise. I decided to try it also so I ordered the filter and installed it.

Wow what a difference! The 10db over S-9 noise at 1.833 Mhz was completely gone, as well as all the other places I heard it! What a relief! The filter (Part Number 562-857-03/47) is available from Mouser Electronics (1-800-346-6873) for less than $8.00 including shipping, and they have no minimum order. I even used my credit card, and it was here the next day! What a bargain!

To install it you have to remove the AC socket on the back of the power supply and replace it with the filter assembly, which is an AC socket with the filter mounted on the back. You may have to enlarge the hole a little as I did, and it is a snug fit but the benefits are well worth the effort! Good Luck!

de Norm K3NZ

Learning your ABC's

Inventor Thomas Edison introduced the word **"Hello"** as a greeting for people when they answered the newly invented telephone... Up to that time the expression that had been used was...**ahoy**.

The only three words in the English language that end with **ceed** are.. .Exceed, **Proceed** and **Succeed.**

The only three words in the English language that end with **gry** are.. .Angry, **hungry and pugry.**

The only two words in the English language that have all the **vowels** in the proper order are.. .abstemiously and **facetiously.**

The **shortest word** in the English language that contains the **first six letters** of the alphabet is.. .feedback.

The three words that are colors that do not rhyme with any other words are... **orange**, **silver** and **purple.**

The only word with **three consecutive double letters** is **bookkeeping.**

author unknown

Just the Minutes

by John, N3IGA, Secretary

The February meeting of the Delaware-Lehigh Amateur Radio Club was called to order by the president Tom, N3LLL, at 7:30pm in Kiva Hall. There were 65 members and guests present.



The meeting minutes were approved as printed in the newsletter. **Carl, AA3IX**, made the motion to accept the minutes with **John, WD8SCX** seconding.

Dick, KA3MOU, gave the Treasurer's report. The old balance was $5,238.14. There was income of $1,621.50. Expenses totaled $718.83. The ending balance, as of Jan. 31, 1997, is $6,140.81. **Barry, N3NVA**, made the motion to accept the Treasurer's report and **Amy, KD3TI** did the seconding.

Barry, N3NVA, said something about the resets on .70. It seems that there is a loss of voltage down to 0 for a split second. Barry talked to the person responsible and the problem will be taken care of in the near future.

Ray, W3TDF, talked about the Christmas City Special Event certificates. The certificates have benn made up by the printer, **Norm, K3NZ**. Ray and his group will be getting together to fill out the certifiactes. Anybody that handed in their QSL cards without a SASE, will have to wait until the next meeting to get their certificates.

Bob, KE3AW, announced that Novice-Tech Classes will start on March 17 and run for 10 weeks, 7-9pm. Anybody needing information can call the club Information Line at 820-9110. Bob mentioned about the MS 150 coming up in June. There are also two weekends in April with events. One is on April 13 which is a walk in Allentown. The other is on April 20 at two sites. One site is in Easton at Hugh Moore Park, and the other is at East Stroudsburg University. Bob showed the recognition that the club got from St Anne School for the club display at their Career Day.

Tom, N3LLL, gave a little run down of the topics for upcoming meetings. March meeting will be **N2BSC, Len,** on building QRP rigs. This will be interesting. April meeting will be an auction. Look in next months newsletter for more information. Tom showed a few graphs by way of a computer and overhead projector. The pie graphs showed the results in the EPA Section of a survey showing the breakdown of the number of hams in each class, age group, how many years as a ham, and useage of CW.

The club would like to welcome the following new members:

Walter Cooper, KB2TIW
Daniel Dougherty, N3YLM
Dennis Balazs, N3XYB

Jim, N3QZS, made the motion to accept the new members with **Bob, N3OLH**, seconding.

Tom, N3LLL, brought up as new business - HAMFEST. As of tonight, we still don't have a chairman. There was a long discussion at the last Board Meeting about this. Tom and the Board thought of having a hamfest not in the usual August time slot like other years. 5 We want to cut our overhead and not have it at C.I.T. Tom and **Ray, W3TDF**, volunteered to be co-chairman on one condition: NO tickets and NO doorprize.

We are going to have a DLARC Fun Hamfest. $1.00 for admission, $2.00 for tailgating, and no inside facilities. The date picked is Saturday, September 27. It will be held in a parking lot that will be decided on as soon as one is picked.

Anybody who didn't stay for the program really missed out on an interesting show. **Dan, W3ZF,** showed pictures by way of computer and overhead projector of old gear. It was fun trying to guess the make and model of some of those old rigs. You could bet that Dan would have pictures of some old Heathkit rigs. The program was fun for all who stayed

de John, N3IGA.

February 7, 1997 VE Session

At this session, five candidates took a total of eight elements. There were three new licences...

Thomas J. Holmes	**new Technician**
Guy R. Schmidt	**new Technician**
Daniel A. Zarbatny	**new Technician**

The VE's at this session were: Tom, N3EBH; Martin, N3DL; Mark, KB3AZR; and Robin, WA3T.

The next test session will be on Friday March 7th at the usual time and place.

de Robin, WA3T

All Amateur Radio Operators are invited to
Participate to the DLARC, RACES & ARES nets
on 146.70 W3OK/RPT with an alternate of W3PYF/RPT 145.11
W3OK trustee Chris Hornaman, NU3L
The Nets are held on Sundays at 9:30 AM and Wednesdays at 7:00PM

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DLARC INFORMATION LINE 820-9110

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==1996-1997==

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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
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 *(csnyder@fast.net}* or Clarence Snyder, W3PYF Editor.
717 Porter Street, Easton, PA 18042-1548

visit our web page

http://www.kutztown.edu/faculty/chuk/dlarc/

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