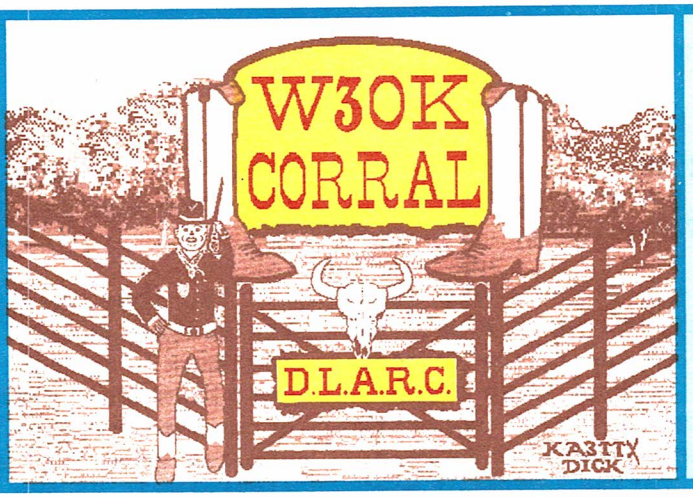
DELAWARE-LEHIGH AMATEUR RADIO CLUB, INC. W3OK

August 1992



SPECIAL SERVICE CLUB

ARRL Affiliated Club

HAMFEST AUGUST 16th

DLARC HAMFEST TIME IS HERE
PLAINFIELD TWSP FARMERS MARKET
EASTON
by Bob, WF3H, Chairman

This is the final installment of information on the DLARC hamfest for 1992 - hard to believe planning began almost a year ago. In the last few months as the date drew near planning has intensified. The committee chairpeople and I visited the hamfest site on numerous occasions to plan optimum parking, admission, and ticket taking procedures. Since the site will be open overnite, several vendors have expressed interest in being setting up on August 15.

The gates will formally open at 5:30 A.M, Sunday, August 16 for vendors and tailgate setup. General Admission will be at 8:00.

The club has really come through with volunteers, and at present it looks as if we are covered (although additional help is ALWAYS welcome). By the time you read this, the parking and admission committees will have already set up time tables and rosters, and established duties.

The level of help and support the club has given to the effort is truly phenomenal. The behind - the - scenes folks included Bill, K3ANS who did a fantastic job of promoting the hamfest at every opportunity and who was a fountain of ideas.

Dave, N3HQE as security/parking chair person donated his experience and talent (in spite of a busy schedule) to make the parking committee run smooth. Van, K3CP should get a job with a good marketing firm after the way he schmoozed the vendors to keep them happy (most of the inside tables have been sold!) Dave, N3JGX devoted much time to planning the tailgating activity. Carl, N3GRK, used his influence with the police and fire departments to garner their help. Norm, K3NZ printed the flyers everyone was tired of being flooded with at other hamfests. And the hamfest literally would not have been possible without the attention to detail Ray, W3TDF gave to site coordination. We've had a lot of support from many other folks who gave leads on facilities, etc. With 30 or so club members contributing it's impossible to list them all, but their help is sincerely appreciated. A special note of appreciation must go to the Executive Board which supported the project every inch of the way, and to Robin, WA3T, Club President who kept things on track.

A lot of work went into the hamfest, and I enjoyed it all. The best part was working with a group of talented, dedicated people who gave of their time, skills, and energy to ensure the DLARC Hamfest 92 will be truly worth the effort. de Bob, WF3H

DLARC FAMILY PICNIC

SUNDAY AUGUST 23rd

Don't forget the Delaware Lehigh Amateur Radio Club's picnic at Hacketts Park in Easton. See story on PAGE 4.

NEXT MEETING OF DLARC

Thursday August 6th

Do you want to protect your amateur gear from lightning or other electromagnetic forces. Come hear how to do it at our next meeting. Full story on PAGE 2.

THE PREZ SEZ
Things we take for granted
by Robin, WA3T President

The presentation by Ed, N2TX at the last club meeting was a real eye-opener for me. We know that the standard of living is low in most other countries, and yet somehow that doesn't become real until we encounter a concrete example. For me, that moment came when Ed said, quite casually, that the lifetime income of most Russians could not buy a top-of-the-line HF transceiver.

We don't all aspire to a top-of-the-line HF transceiver, for a variety of reasons. But here in the USA, typical ANNUAL income is far more than the price of several of these expensive toys. We can't save that much, obviously, but Ed wasn't talking about the lifetime SAVINGS of a typical Russian; he said lifetime INCOME.

We take for granted that we can go to a local hamfest, and buy the parts we need for a homebrew project, perhaps for the price of a couple of hamburgers. A Russian ham has no choice except homebrewing, and is willing to travel hundreds of miles to find just one final part. For a song, we can buy older used equipment for which a Russian ham would give his eyeteeth.

This vivid image of the difference between the USA and Russia will take a long time to fade from my mind. I know it will still be with me as I walk around our own club hamfest in August: I'll see our hamfest as a celebration of our richness as a nation, and of the pooling of diverse talent and the hard work which makes it possible for us to enjoy our hobby so easily.

Let's make our hamfest a celebration in red, white and blue, even if it's past July 4th! Let's make it a celebration of the diversity of our membership, and of the fruits of our hard work, even if it's early for Labor Day! See you there!

WRITTEN OVER THE JULY 4TH WEEKEND.

73 de Robin, WA3T

FOR SALE

ICOM O2AT, Complete with BP3 battery, BP4 and 12 cells. Charger BC25U , 5/8th whip, Rubber Duck, Case and Shoulder Strap, Asking $250. Call Ben N3CNH 282-1382.

PROTECT YOUR GEAR
How can you protect your radios?
by Bill, K3ANS

Was your antenna hit by lightning? Did you sustain damage? Why were you missed? Did you know a nuclear bomb exploded 100 miles over Iowa would destroy your radio and computer in Pennsylvania? How can you protect your station from this electromagnetic force and lightning? Do you use a grounded bulk head? A gas discharge tube? Do you have a ring ground? Is your rig properly grounded? Do you know the difference between an RF ground and a DC ground? How do you ground your station located on the second floor?

Come to the Delaware-Lehigh Amateur Radio Club, Inc. meeting August 6 at the theater in the Northampton County Area Community College, 7:30 PM to hear H. Robert Schroeder, WA2JZF. Bob is a radio technician with the New Jersey State Police Office of Emergency Management in Trenton, New Jersey. He has been with NJOEM for eight years and has been an active RACES operator on the State of NJ staff for 22 years. His area of expertise is radio communications with a special interest in broadcasting.

Bob's present position involves system design, installation, and maintenance of radio and landline communications systems for the State Office of Emergency Management including grounding, EMP protection, and electromagnetic compatibility.

He received his B.S. degree in electrical engineering technology from Trenton State College. He is certified by the Federal Emergency Management Agency as an EMP Inspector and is a member of the adjunct faculty at the Emergency Management Institute at the National Emergency Training Center in Emmitsburg, Maryland. He also holds an amateur radio advanced class license (WA2JZF) and a Lifetime General Radiotelephone (formerly First Phone) license.

See you Auguest 6!

Take US route 22 to PA route 191 between Easton and Bethlehem. Go south on 191 and follow the signs to the Northampton County Area Community College. Talk in on W3OK/R, 146.70 mhz.

de Bill Goodman, K3ANS,
DLARC Program Chairman

SHOULD THE NAME OF ARRL BE CHANGED?
by Hugh Turnbull, W3ABC

For more than 75 years, our national Amateur Radio society has been called the "American Radio Relay League."

Today, some feel the name should be changed to "American Amateur Radio League."

The name change could make the organization's nature and purpose clearer to the general public and to the agencies served by Amateur Radio volunteers.

On the other hand, there would be some costs involved, along with some short-term confusion on the part of hams and non-hams alike.

What do YOU think? Should the name be changed, or not? Your ARRL Director wants to know your opinion.

If you live in the Atlantic Division, send your reply via packet to W3ABC @ WA3ZNW.MD or via the mail to

Hugh Turnbull, W3ABC,
6903 Rhode Island Avenue
College Park, MD 20740.

Hams in other Divisions should reply to their Director, whose name and address appears on page 8 of every QST.

If you take a poll of friends or club members, please indicate how many hams say **CHANGE THE NAME** and how many say **DO NOT CHANGE THE NAME.**

de Hugh, W3ABC
Director Atlantic Division ARRL

CLEAN AIR

The newly formed Ham Radio Business Council and Senator Barry M. Goldwater, K7UGA say that its time to clear the air. Clear it, that is, of all the jamming and foul language that the council says the FCC is unwilling to act against. So, at the recent Dayton Hamvention, the HRBC revealed its plans to bring such great public pressure to bear on congress and the FCC that the government will be forced to take the worst offenders off the air without delay.

The text of the HRBC petition is short and to the point. I cites regulation 97.113 D as specifically prohibiting the use of obscene, indecent or profane language on the ham bands. It also notes that Part 97.101 D forbids any type of willful and malicious interference by one amateur to another. It ends by placing a demand on the FCC to rid the amateur service of those hams who habitually break these rules. This, by redirecting FCC priorities in the enforcement arena.

As if to underscore the importance of this petition, it has been revealed that amateur radio's elder statesman, Senator Barry M. Goldwater K7UGA was the first to sign the HRBC Clean Air Petition. That ceremony took place at his home in Scottsdale Arizona in early April. At that time Senator Goldwater offered his support to the Ham Radio Business Council in getting congressional interest for this ham radio Clean Air act.

The Ham Radio Business Council says that any radio amateur or radio club interested in getting the bad guys off the air are invited to help. This, by circulating the Clean Air Petition nationwide. You can get a copy by sending a self addressed stamped envelope to the Clean Air Petition, in care of the Ham Radio Business Council, Post Office Box 5832, St. Louis, Missouri 63134.

Reprinted from Radio Amateur Newsline

HELP DLARC

Are you planning to join the ARRL or just renew your current membership?
Remember: The ARRL is more than just a magazine subscription!
Help DLARC by renewing through the club.
CONTACT DICK, KA3MOU, for the details

VAL SEZ
by Val, W3EFL

Poetic Lie Cents

I have spelling checker,
It came with my PC,
It clearly marks four my revue
Mistakes I cannot sea.
I've run this poem threw it,
I'm sure your please to no,
It's letter perfect in its weight,
My checker tolled me sew.~

Editor note: I tried it, nothing wrong!!!

PIRATE RADIO BROADCASTER FINED

The Federal Communications Commission's Laurel Office issued a $17,500 fine to Andrew R. Yoder of Chambersburg, Pennsylvania. The fine was issued for willful and repeated operation of an unlicensed broadcast station on frequencies 7415 and 7416 KHz and for failure to allow inspection of the station upon Commission request.

Mr. Yoder operated as DJ "Mr. Blue Sky" and identified his station as ""Radio USA".". That station was one of the most active illegal stations which operated during 1990 and 1991. To avoid detection, the operator maintained no set schedule, operated sporadically, and moved his station to many different locations. The FCC found "Radio USA" originating at various times from within the states of Michigan, Ohio, New York, Pennsylvania, Tennessee, Virginia, and West Virginia.

In October 1991, using the Commission's long range direction-finding network, investigative staff of the Laurel Office traced the source of illegal "Radio USA" operations to a campground in Mt. Solon, Virginia, where Yoder was a guest. In February, 1992, Laurel staff again traced the source of operations to Yoder's parents' home in Springs, PA. As the FCC investigator approached the house to inspect the radio equipment, the illegal operations ceased. The investigator was met at the front door by Mr. Yoder and was refused entry.

Unlicensed operation of a radio transmitter is a violation of Section 301 of the Communications Act of 1934, as amended. Failure to permit inspection of a radio transmitter by a Commission representative upon reasonable request is a violation of Section 15.29(a) of the Commission's rules. Sanctions may include administrative fines of up to $10,000 for each day of a violation and/or criminal penalties of up to $100,000 and/or imprisonment for up to one year. Such misuse of radio frequencies is a serious offense because of its potential for interference with authorized radio users.

- de Don, N2LCR
ARRL SNJ Bulletin Manager

SUPPORT YOUR HAMFEST
VOLUNTEER TO HELP
CONTACT BOB, WF3H
OR CALL THE DLARC INFO LINE
820-9110

DLARC FAMILY PICNIC
SUNDAY AUGUST 23rd
by John, N3IGA

It is that time of the year again. Time for another great Club picnic. There were around 90 present at last year's picnic. I hope the weather is just as good as the past two years.

The picnic will be held at Hacketts Park in Easton on August 23rd, the Sunday after the Club's Hamfest. It will be a perfect way to wind down after a busy month.

The food will be great, and as always all members are asked to bring some type of covered dish. Salads, cakes, fruit, pies, baked beans, and any other types of dishes. As usual the Club will supply the liquid refreshment, the hot dogs, and the hamburgers. Hopefully W3TDF and K3CP will make up those great hamburger patties. I hope we can have Marvin, KA3TEO, and his wife Dee, KA3WOB, to provide music. Also don't forget about the Horseshoe and Chess Championships.

I will be needing help with the preparations at Hacketts. Please contact me on what you'd like to bring and how many will be coming. I can be reached by way of phone, 837-7487, or on .70 repeater.

de John, N3IGA

MARK YOUR CALENDARS

The 35th Scout Jamboree on the Air (JOTA)
OCTOBER 17-18 1992
Details in the September W3OK CORRAL

PAUL NOKIA IS NEW LEHIGH CTY EC

Paul Ryan, NOKIA has been appointed Lehigh County Emergency Coordinator by Mark Miller, WA3KIF, District ARRL Emergency Coordinator.

Lehigh County now has a net running on 444.1 and on 146.745 on Tuesday nights at 1900 local time.

Paul asks all who are interested to call in there, whether or not they live in Lehigh County.

Paul is interested in having amateurs continue working with neighboring communities in public service.

The other Lehigh County net meets on 146.94 on Mondays at 1930 local time.

**** CONTEST CALENDAR ****
by Barry, KU3X

Aug 8-9	Maryland - D.C. QSO Party
	Worked all Europe CW Contest
Aug 9	QRP ARCI Summer Daze SSB Sprint
Aug 13	W1AW Qualifying Run 10-35 WPM
Aug 15-16	SARTG RTTY Contest
	North American SSB QSO Party
	ARRL 10 GHZ Cumulative Contest
Aug 15-17	New Jersey QSO Party
	SEANET SSB Contest
Aug 20	ARRL Qualifying Run 10-35 WPM
Aug 29-30	Empire State QSO Party

CONTEST TIPS #3

About 15 minutes before the contest starts, find a clear frequency on the band you want to start the contest in and send a few CQ's. Get a short QSO going. When the contest starts and it will sound like the flood gates of Hoover Dam have opened, you will have already established your operating frequency.

73 de Barry, KU3X

"BIRDIES ON 20"

A PLAY ABOUT FIELD DAY
by Bob, KU3K

THE CAST

BIRDIES	(2 VERY YOUNG ROBINS)
RAYMOND BILGER	(W3TDF)
JUDY KERY	(WIFE OF KU3X)
BOB KRATZ	(KU3K)
JANICE POPE	(KA3NJR)

THE SCENE: PLAINFIELD TWP. FAIRGROUNDS, 6PM, SATURDAY EVENING, JUNE 27, 1992

SCENE ONE

JANICE: *EXCUSE ME RAYMOND, BUT I THINK YOU HAVE BIRDIES ON 20 METERS.*

RAYMOND: *I DON'T THINK SO I JUST FIXED THIS KENWOOD 940. WAIT A MINUTE LET ME BANG ON TH....*

JANICE: *NO..NO..I MEAN THE BIRDIES IN THE NEST ABOVE YOUR FIELD DAY OPERATING POSITION, THERE IN THE CORNER.*

JUDY: *YES, LOOK AT THE POOR THINGS. I REALLY THINK YOU SHOULD MOVE SO THE MOMMY BIRD WILL RETURN AND FEED THEM.*

RAYMOND: *BUT..BUT..WE JUST GOT THIS STATION MOVING. I'M RACKING UP POINTS HERE. SEE?!*

JANICE: *WAIT A SEC, JUDY. LET ME CALL MY HUSBAND. HE'S SUPPOSED TO BE THE CHAIRMAN OF THIS EVENT.*

SCENE TWO (LATER THAT EVENING)

BOB: *WELL WHAT CAN I DO ABOUT A COUPLA BIRDS . . .WE'RE NOT DISTURBING THEM AND. .*

JANICE: *OH YES, YOU ARE DISTURBING THEM. THEY CAN'T EAT BECAUSE THE MOTHER IS AFRAID AND HAS NOT RETURNED TO THE NEST. YOU MUST BECOME THE MOMMY!!!*

BOB: *O.K. LOOK, WE'LL MOVE THE TABLE TO THE OTHER SIDE OF THE PAVILION AND THEN THE MOMMY WILL...*

JUDY: *NO! I DON'T THINK THE MOMMY WILL RETURN UNTIL WE ARE COMPLETELY GONE! YOU ARE GOING TO HAVE TO FEED THEM. LET ME SHOW YOU. I'LL START USING SOME RAW HAMBURGER.*

JANICE: *ROBERT, YOU WILL HAVE TO FEED THEM EVERY HALF HOUR THROUGH THE NIGHT. IN THE MORNING I'LL GET ON THE PHONE AND TRY TO FIND THEM A HOME.*

BOB: *ME??!!*

JANICE: *YES,YOU! YOU CAN BE THE MOMMY AND RAYMOND, THE DADDY!!*

SCENE THREE (SUNDAY MORNING, 10AM)

JANICE: *HI. AND HOW ARE THE CHILDREN THIS MORNING?*

BOB: *WELL THEY ATE ALMOST ALL NIGHT. THEY SEEM STRONG BUT, "MOMMY" AND "DADDY" ARE TIRED!*

JANICE: *I FOUND THEM A HOME. PUT THEM IN THIS SHOEBOX AND I'M OFF!*

SCENE FOUR (A FEW DAYS LATER)

JUDY: (ON THE PHONE) *HI JAN. I JUST WANTED TO LET YOU KNOW THE BIRDS ARE PERCHING AND FLAPPING THEIR WINGS AND ARE HEALTHY!*

JANICE: *ROBERT AND RAYMOND WILL BE PLEASED. IT'S WONDERFUL.*

EPILOGUE (IN ANOTHER FEW DAYS)

de Bob, KU3K

CLUB PICNIC

AUGUST 23rd

HACKETTS PARK EASTON

ARRL FIELD DAY 1992
THANK YOU MISTER MURPHY!
by Bob, KU3K, Field Day Chairman

Accidents will happen! Our dates for the annual ARRL Field Day outing at Hacketts Park got flipped with another group! Someone once told me that "__it happens", and it would seem that indeed "it" happened to us. But wait a minute, Field Day is an EMERGENCY DRILL isn't it? Does it really matter where we set up since in a REAL emergency we may not have any choice?!

Is it not ironic that for the first time the DLARC decided to run a hamfest this year, and we booked the Plainfield Township Fairgrounds which seemed to be very suitable! Hey, why not run Field Day exercises at this place first and kill two birds with one stone? (The story of the "two birds" is another matter.) Well, as you all know, we canceled Hacketts and the club did indeed run field day at the Plainfield Township Fairgrounds. Everyone who joined us has given it a four star rating. The place offered great high trees for dipoles and wire beams, several acres so we could spread out, and pavilions to keep equipment and operators cool and dry. All this and a high plateau location with easy access just off route 191. We also got the chance to better prepare for the upcoming hamfest August 16th.

Set up (Sat.,June 27th) went off without a hitch and my thanks to EVERYONE who helped. Special thanks to W2CCE for use of his great generator and KA3EED for keeping all our generators in gasoline, to KA3YEB for use of the bus, (thank the driver for us Adrienne), to Nick Tylenda and Northampton County for the communications-van and other goodies, to K3CP for the logging program, to position captains K3ANS whose 40 meter operation generated the highest score, W3TDF for doing 20 meters and being the resident hardware and "what others forgot to bring" supplier, (he brought EVERYTHING with him), to WU3M for the 15 meter station which he must have operated 20 out of 24 hours, (I never saw him sleep or eat!!) and to NU3L and K3NWM for 80 meters which garnered the second highest score. (That 80 foot high dipole helped!) Special thanks also to WA3T and the NOVICE/TECHS (using KA3ZRR) who were at those radios for the entire weekend! I can always count on packet from W3PYF and the sunday morning 2m solar operation from KA3ODI. The final score (6822) excluding bonus points, is about 200 points less than last year; However, this is quite good considering the bad solar activity we had over the weekend. Also our CW qso's topped last year by over 200. Those are 2 points each folks! Even the NOVICES had more cw than phone qso's!!!

I never think of Field Day as a picnic, but this weekend has to go on record as one of the best food-fests in club history! KU3Kudos to Carl and Norm, N3GRK and N3GXW for an act that will be hard to follow!! If you missed Sunday morning breakfast, you missed: bacon, eggs, sausage, donuts, coffee AND buckwheat honey pancakes with blueberries most skillfully prepared (and flipped) by Cliff and Lois Sunflower (WU3M's parents) whose kindness was appreciated by all. Did I hear someone ask about the famous Curtis stew? Ah yes overnight fans, W3LR, who tapped out several hundred qso's on 80m, did indeed bring the stew which was prepared by his daughter Juli. I don't want to say it was yummy or anything like that, but everyone I talked to had a second (or third) helping...it must have been the wine!!

We had a wonderful weekend in terms of weather, many visitors due in part to a nice Sunday Morning Call newspaper article and a crew at tear-down who seemed to know exactly what to do without being told. To those who brought trucks, and muscle to go with them, we simply could not do Field Day without you! In case I forget, THANKS AGAIN EVERYONE!! We put it all to bed Sunday June 28th at about 5 PM. Enjoyable...de Bob, KU3K

FOR SALE

From the estate of a local amateur, the following are still available. If interested call W3PYF @ 215 252-2109 before 9PM.

Realistic HTX 10 meter transiever	$ 100.00
Mirage MP2 Meter.....	100.00
Icom 144 IC-275H (100 watt) 2mtr all mode.....	900.00
2 meter Cushcraft 11 element beam	25.00
10 meter Cushcraft 4 element beam	45.00
Alpha Delta 4 position ant switch	35.00
B&W 374 Dummy load watt meter	175.00
Cobra SR 900 Scanner.....	50.00
Bearcat 20/20 Scanner.....	30.00

JUST THE MINUTES

by Dave, N3EYT, Secretary

The July 2 meeting of the DLARC was called to order at 7:36pm by Robin, WA3T. Seventy-five friends and members attended the meeting held in the theater on the NCACC campus.

The minutes of the June meeting were approved as printed in the W3OK Corral. KA3MOU, Dick presented the treasurer's report and stated a balance in the club's savings account as of June 30 to be $4019.95.

The DLARC would like to welcome the following new members:

Joseph Bruce, Jr. - N3MKZ;
Norm Cassela - WA2OAT
Allan Metzler - N3MAW
Robert Gilson - new Tech call pending;
David Frankenfield - N3LWY
Christopher Mering - N3BWV
Thomas Frobase - N3LLL
Michael Yacovone - KA2WLD
Patricia Yacovone - KA2WLC

Clarence noted this puts the club roster at over 360!

Barry, KU3X, read a short news story about a ham who had towering difficulties with a local ordinance which gave the mayor sweeping powers over towers. The last word, check your local building codes.

Upcoming programs reported by Bill, K3ANS: In August a shocking presentation on lightning and EMF protection. September will feature the first class on computers in relation to ham radio. (Future classes will be conducted apart from the general meeting).

In October, AA2AV talks about working all counties, over 3000 of them in the USA. December's program is a trip to FP land with WB2R and NU3Y.

Clarence, W3PYF, called for volunteers for the Derriere in the Delaware and Summer Splash on July 26 and for the Easton Hospital Race & Walk on August 2. About eight operators are required for that event. For those present at the meeting who participated in the Walk-America, Clarence distributed appreciation coupons for Dorney Park and one free admission on July 6. The question of a lifetime membership status for the DLARC was brought before the Board of Directors and it was decided that for such a small organization, the cost of maintaining that special membership category outweighed the benefits. An operating budget of $3000 was approved for the August 16 Hamfest. Club president, Robin WA3T, expects the actual Hamfest budget to come in well below the $3000 figure. The Hamfest tickets are printed and club members started buying them already. Hamfest activity will start at 5:30 am at the Plainfield Township fairgrounds. Volunteers are needed to help out the parking and ticket sales.

Bob Kratz, KU3K reported that Field Day went well, although less successful than last year in terms of contacts due to solar activity which lasted the duration of Field Day. Many thanks to all who participated to help make Field Day a big success. The Plainfield Township site received many favorable comments and request to use the site again next year.

Dave, W3MM, told us about the DX packet cluster he has made available to hams from Virginia to Vermont. The system typically can have more than 40 nodes and 350 users during any summer evening. Some restrictions apply for proper use. A user's manual is available for $10. Lehigh Valley frequencies are 147.495 and 441.050 MHz.

August in Moscow, 1991. A very exciting time to be there and Ed Kritsky, NT2X gave a very interesting program on Russian hams, a DXpedition and the second revolution.

de Dave, N3EYT Secretary

July, 1992 VE session.

by Robin, WA3T

At the July VE session, eight candidates took a total of 15 elements. There were four upgrades and one new licence...

Joe Walmach, III, KA3YUJ to Advanced
Michael Chaffier, KA3ZNZ to General
Robert Nichol, KA3ZRR to General
Robert Price, KB4ROR to Technician with HF
Randy Masure New Technician

VEs in attendance at this session were Glade, WA3MVQ; Van, K3CP; and Robin, WA3T. The next session is on August 7th. Team 4 will be in attendance.

73 de Robin, WA3T, Team Liason Alternate.

IMA LIDD

Dipole Antennas Part 2
By Van, K3CP

Elmer and Ima Lidd were talking about dipole antennas last month. They were discussing the problem of getting a good RF ground.

Ima had thought he had solved the problem of getting a ground on ten meters by using a half wave ground wire to his ground stake.

Elmer asked "Yes, but suppose you changed bands and went on twenty. Now your 1/2 wave is 1/4 wave and you're back to an open circuit again."

Ima was puzzled. He asked, "Well what's the solution to getting a good RF ground on all frequencies on which I'm likely to operate?"

"One solution," replied Elmer, "would be to connect several wires from your transceiver and other equipment to the best ground you have. Pipes driven into the ground or copper water pipes in your house would be satisfactory. Make each wire 1/2 wave length and use a good rugged switch to change bands. Another solution is to make or buy a "ground tuner" and put it in your ground lead and adjust it to bring your ground wire to resonance when you change bands."

"Well, I guess I have not paid enough attention to proper RF grounding. But I will now," said Ima.

Elmer said, "You also asked what was radiation resistance. The radiation resistance depends on several factors. The main ones are the length of the wire and the proximity to ground and other nearby objects. The radiation resistance of a half wave dipole over regular earth, i.e. not perfect ground, can vary from about 40 ohms to almost 100 ohms.

"It's interesting to note that the radiation resistance is just that. No reactance is present. This condition only occurs at the resonant frequency. The inductive and capacitive reactance are equal, but the XL is considered to be positive and the XC negative - so they cancel each other leaving only the resistance. That's a good thing because only resistance can absorb power. If we tune our transmitter slightly higher in frequency the antenna is no longer resonant and therefore becomes slightly reactive. Since this reactive component cannot absorb power, that power is reflected back down the lead in."

"OK, Elmer," said Ima. "That's very interesting, but what is radiation resistance. Is it like a regular resistor?"

"Radiation resistance is a not like a regular resistor, Ima," replied Elmer. "You cannot put an ohmmeter across the center insulator and measure it for instance. It is a myth. Let me explain it this way. Radiation resistance is equal to the resistance of a resistor which would dissipate the same amount of power as the antenna radiates. Do you understand, Ima?"

"Well, I understand most of what you have said, but I still am not sure what you meant about a reactance not absorbing power."

"Let me try another approach, Ima," said Elmer. "If we had an antenna system that had an SWR of 1 to 1, we would have a good situation in which all the power that went up the feed line was radiated by the antenna. Now if we tuned off frequency we would no longer have an SWR of 1 to 1. Once we move off frequency, the antenna is no longer purely resistive. A reactive element is introduced. This is what causes some power to be reflected and the SWR to rise above 1 to 1."

"Ah, I see," said Ima. "The maximum amount of power is transferred when the antenna and the feed line are the same resistance."

"That's an important thing to remember, Ima," said Elmer. "If you want the most power from a loud speaker, you must match it to the circuit to which it is connected. You won't cause any distortion, as some people think, but you will lose power transfer. Distortion is that condition that exists when the wave shape coming out of a circuit is not the same as it was when it entered and that can only be caused by a nonlinear condition."

"As always, Elmer," said Ima, "Thanks for the information. See you around.

de Van, K3CP

DO YOUR NEIGHBORS HAVE RFI?

"What to do if you have an electronic interference problem" is a pamphlet in layman's language for hams to give to neighbors when interference complaints are received.

Copies are available from the RFI Desk at ARRL HQ for a self-addressed stamped envelope.

Digital Communications

by Joel, K9TBD

"Oh my Gawd" whaddoIdo? At the Prompt:

There are many marvelous services available through your packet box. But -here are a few responses you get when you log into a service:

```
W9XYZ: A,B,C,D,E,F,G,H,I,...,Z>
AEA232 > (A,B,C,D,E,F)
Welcome to W9XYZ PBBS; leave mail for anyone>
What?>
Please use \\ before any commands:>
.MSOXYZ Next?>
$
```

grep is your friend (try alternates: fgrep,-egrep), C'mon - try IBLIK on any of my systems and see what you get!

Well you get the message! There about 100 - k-a-zillion services available through your packet box, but, unfortunately, they are all different!

When you type \\HELP or \\READ Help or ? or whatever ..etc - something may happen or maybe not. Some of the responses may be:

1) Sa what?>
2) {a three page list of totally useless information}
3) nothing!
4) "I see you know nothing about this system and you will be logged out forever!" "This includes your wife, friends, and close relatives." (Your brother in Milwaukee is also excluded!)

What is the problem?

All systems are made available by some 'SYSOP' -a system operator who has all the greatest intentions in the world - i.e. - provide a 'Callbook', a 'Gateway', an 'xxx' service to the rest of the world - or perhaps a simple local mailbox for store and forward message services.

There is no STANDARD! Why not? Well because everyone has a better idea. - And - They really do! but, where does that put us - the poor uninitiated 'first, second, third' time hacker with a packet box? No-Where! No-Where at all - particularly at 1200 baud.

What is the solution?

1) Each response could be answered from any of the following queries: ?; help; what; please help me; what's your name?; I'm Joel; Can you give me some advice?; lead me to your master; are you friendly? you get the picture
2) Stop all Services: That would never do - geeze - how could I ever get a callbook lookup if that service were not there?
3) Unify all responses: That will also not happen as long as there is a spirit, there will be a better way to do something!
4) THE ANSWER

Put a universal query service up which watches every transmission on every frequency and when ever there is an inconsistent response from anyone anywhere - answer with the right thing!

Hope you got this message! There are a lot of services out there in Digital Land and I trust that you will take advantage of them - even if there are many ways to ask your question (and as many ways to respond). Give it a shot!

73 Joel, K9TBD

AMATEUR TV FOR DLARC?

by Bill, K3ANS

I was approached July 5 by Ed Dean, W3SON, owner of WFMZ-TV 69 in Allentown asking me if I or any other hams I know would be interested in setting up an amateur radio television repeater at his TV station. He just erected a new tower on South Mountain near Allentown and it will be filling up quickly. Pretty soon no room will be available. He wants to see an ATV station installed with antenna on his tower as soon as possible.

This is a wonderful opportunity for all of ham radio, especially ATV. He said he would offer plenty of support, but he cannot do it all.

In the same discussion was Elmer A. Taylor, KM3E, of Montrose, PA who already has such an ATV repeater in Susquehanna County. Elmer says he is too far from population centers for his repeater to be active. Perhaps they could link Montrose to Allentown. He had a complete ATV transmitter/receiver for sale at the Wilkes-Barre hamfest for $600. His telephone no. is 717 278-3587 at his office, Broadline Construction Inc.

Please call him or Ed Dean at WFMZ-TV 215 797 4530, Allentown, PA.

de Bill, K3ANS

All Amateur Radio Operators are invited to participate in 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 on Wednesdays at 7:00 PM.

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* DLARC INFORMATION LINE 820-9110 *

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All regular meetings of the D.L.A.R.C. are held on the first Thursday of each month at 7:30 PM at the Northampton County Community College

TALK IN ON 146.70

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