DELAWARE LEHIGH AMATEUR RADIO CLUB Inc.

MARCH 2010

W3OK CORRAL

Club Meeting At the Nancy Run Fire Company
Company 7:30 PM March 3rd 2011

Jeff / N3QO presenting "Computers in the Ham Shack"

MARCH MEETING PROGRAM

2nd Annual DLARC Mini Ham Fest

Meeting Night Theme

Loudest Hawaiian Shirt

FROM THE PRESIDENT'S SHACK

A Different kind of Fox Hunt

George / N3SQD

Amateur radio continues to provide for some interesting diversions. A couple of weeks ago, late on a Friday afternoon I got a phone call from Jon N3INJ, that a stuck mike was causing a repeater time out. I listened to the 70 machine, and sure enough it was transmitting, but no audio could be heard. I discussed it with Jon and he mentioned that the last conversations he had heard was between Barry KU3X and Dave K3GMT. We decided we would check with them to see if it was possible if either might have a stuck mike. I called Barry and Jon called Dave. Well, things are never quite that easy, and true to form neither was this. Both Dave and Barry's rigs were off. Jon mentioned that he could hear the signal on the input in Easton, and I could hear it faintly out near the airport. I gave Barry N3NVA a call to discuss the situation, and he suggested that it may be time for a “fox hunt”.

I decided to see if I could come up with a couple of “hunters” for this signal. Both Al W3CE and Gary N2AUO have doppler direction finding equipment. So I gave them both a call. It was around dinner time and they both agreed to go out after dinner. I would travel with Al and assist and Jay N3OW volunteered to join Gary.

Al and I knew that the signal was to our east and headed toward Bath and Nazareth. Gary was going to pick up Jay and they would start from the Easton Area. Al and I were able to start slightly before Gary and Jay. As we got in the Bath vicinity it appeared that the input got stronger further to the east, so we the headed to the repeater site just North of Nazareth. On that high terrain, it appeared that the signal was still further to the east. We took another reading at the Nazareth park entrance. It looked even further east, as we got in the vicinity of Sullivan Trail (north of Tatamy) we noticed that the signal was coming almost due South. We relayed this message to Gary and Jay who noticed that the signal was coming from North of Easton. We got another bearing of South from Braden's Airport and then decided to meet with Gary and Jay at a mall a few miles to the South. At the mall site we could see that the signal was now to the North of us, and that we were very close. The signal strength was very strong and we had to dial-in quite a bit of attenuation (60+dB) to get good bearings. We began to travel into several different neighborhoods and compare notes. We coordinated our efforts over the APRS frequency.

We settled in on a particular neighborhood on the East side of Sullivan Trail. The signals were very strong and even with maximum attenuation seemed to be coming from multiple locations. At this point it was 9:30PM. We had been looking for over three hours and knew we were close. But, in the dark it was hard to look for antennas and we didn't want to be ringing peoples doorbells at that hour. We decided to call it a night. I called Barry and he said he would shut down the repeater (to spare the finals) until morning.

Saturday morning about 9AM, we rejoined the search, now with Ben KB3CTX joining in the hunt. This time the search favored a neighborhood on the West side of Sullivan Trail. We circled in on one location and noticed a house with what appeared to be an antenna and some wire coming from the attic. Ben and I rang the doorbell and asked the owner if a ham lived there. No, and the only transmitter there was for dog training. As we were walking back to our cars, I noticed a tower on the next block to the west. It would be reasonable that high power from that antenna could be reflecting off the house we had just visited. We decided to investigate that area. As we approached the DF gear confirmed strong signals from the house. Once again Ben and I rang the doorbell. We introduced ourselves and asked the woman who answered the door if a ham lived there. Why yes one did, and she'd get him. He came to the door and we asked if he might have a transmitter on the 70 machine frequency. He decided to check the basement where he had a rig. When he returned the signal had stopped. He mentioned that he had been moving some books on his bench the day before and they must have pinched the mike. The problem had been resolved by 10:30AM. I let Barry know we had found the problem and that the repeater had been returned to normal operation. We celebrated with a late breakfast.

The effort was very instructive and provided everyone involved with a good understanding of the issues of locating a strong signal in a suburban environment (damn aluminum siding...). Additionally, it demonstrates the benefits of a good mike hanger and suggest the benefits of turning off the radio when you're not in the shack to listen to it.

73 - **N3SQD / George**

P.S. - Our mini-Hamfest will be at the March meeting. Bring some stuff to sell, or money to purchase, or both. I hope to see you there.

DON'T FORGET

MARCH 13th

MINUTES FROM THE FEBRUARY 3rd MEETING

The general monthly meeting of the Delaware-Lehigh Amateur Radio Club was held at the Nancy Run Fire Company in Bethlehem Township on February 3rd 2011.

Call To Order: The meeting convened at 19:33 hours. President **George / N3SQD** presiding.

Members & Guests in Attendance: 48 members with 3 guests – Christina Schall, Dixie Filardi, Jim Soos

REPORTS:

Approval of the minutes: 1st **Jay / N3OW**, 2nd **Terry / KB3VFB – Motion Carried**

Treasurer's Report: 1st **Pete /NL7XM**, 2nd **Gary / N2AUO** – **Motion Carried**

Web Page: Round of applause for **Brad / W3JXQ** – doing a great job. **Kenny / N3IYX** requested Tuesday night D-Star sessions at .the Milkhouse be posted.

Repeater: Transmitter stuck on blocking repeater. RFI team located the problem and took the necessary steps to correct the problem. **Kenny /N3IYX** reported D Star resets automatically

V.E. Session: George / N3SQD announced the next session would be March 4th at 7:00 PM. At the Northampton County 911 Center.

Classes: Bob / KE3AW announced Classes for Technician starting March 8 – 9 weeks. Classes for General TBA

Club Station: Dave / K3GMT reported station won a certificate for participation in a contest.

Membership: Dave / K3GMT reported present membership at 231 members. He also presented an application for one new member **James Soos / KB3TQQ**, 1st **Carl / AA3IX,** 2nd **Terry / KB3VFB -- Motion Carried**

UPCOMING EVENTS:

Field Day: June 24 & 25 – Louise Moore Park – waive restrictions, we are able to stay overnight, public only during the day time, we will be in Pavilion 5 east side of park

2 Mtr Sprint: Details coming from **Ray / W3TDF** for April.

OLD BUSINESS:

George / N3SQD reported February 1 – 2 Northampton County EOC requested amateur operators for possible assistance due to incoming ice storm. Thanks to those who were at the 911 center and **Kenny / N3IYX** who manned the Milkhouse operating a 4 county D-StarNet.

NEW BUSINESS:

Pete /NL7XM – DLARC store is open

Kenny / N3IYX – New radio for club station, FT950 YASU and power supply milkhouse – any suggestions

March Meeting is Hawaiian Shirt Contest wear your wildest color shirt

March Meeting is HAMFEST! For a table, pre-register with **Dave / K3GMT**

Tonight's program is **Jeff / N3QO** Computers in the Shack

After meeting D Star will meet

ADJOURNMENT:

Meeting adjourned at 8:30 PM 1st **Dave / K3GMT** 2nd **Kenny / N3IYX** – **Motion Carried**

Respectfully Submitted,

Doreen / KB3PDL , Secretary

MARCH 2011 QUICK CHECK CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2 DLARC RACES/ARES Net (W3CE)	3 DLARC MEETING	4 V. E. SESSIOIN	5
6	7	8	9 DLARC RACES/ARES Net (KC3II)	10	11	12
13 Daylight Savings Time Begins	14	15	16 DLARC RACES/ARES Net (N3SQD)	17 NewsLetter Articles Deadline	18	19
20	21	22	23 DLARC RACES/ARES Net (KR3U)	24	25	26
27	28	29	30 DLARC RACES/ARES Net (K3GMT)	31		

VE TEST SESSION

There will be a test session this month on March 4th at 7 PM at the Northampton County 911 center. Pretest registration is required. Contact George / N3SQD at george@bioserv.com or Al / W3CE at w3ce@arrl.net

NEW MEMBER

The DLARC is continuing to grow, so be sure to greet our new member, shake his hand, and give him a warm welcome to our club. The newest member is **Jim Soos / KB3TQQ.**

FEBRUARY MEETING PROGRAM

The program "Computers in the Ham Shack", was presented by **Jeff / N3QO**. Jeff presented how computers are used as interfaces, rig controllers, operating the digital modes, contest management and award tracking. With the modern rig having the small faceplate and the need for menus to make changes, a computer control system makes operating simple and fast. Digital modes such as RTTY, PSK, CW, slow scan TV, Moon bounce and meteor scatter are now easily accomplished with the ham shack computer. Making each application a simple fun job with less necessary equipment. Logging has become an easy job too now, and there are programs available to send your QSOs to websites that track them and issue awards for the various accomplishments. These sites are eQSL and LoTW . Computers supply voice and CW keying, so you can run a contest without ever touching your mike or keyer. Finally contest management is another computer use, you can track your QSOs, your team mates' QSOs and have a total knowledge of your status at any time.

MARCH 2011

D.L.A..R.C. Treasurer's Report

Ending Balance 31 December 2010 **$3,322.23**

Mike Gower / KB3LOD
Treasurer / D.L.A.R.C.

MONTHLY BRAIN TEASER

"A special prize awaits the first Club Member to submit the correct answer to this month's Brainteaser to Pete / NL7XM at nl7xm@arrl.net via E-mail. He must be present at the next Meeting to receive it, or it goes unrewarded. Officers, Board members, and Brain Teaser Authors are not eligible to win."

de **NL7XM**

FEBRUARY BRAINTEASER ANSWER

In case he got a hole-in-one.

The winner is **Bob / KA3JAV**

MARCH BRAINTEASER

How do you fix a jack-o'-lantern?

MARCH CONTESTING AT THE OK CORRAL

March 5st & 6th – ARRL International DX Contest - SSB
March 13th – North American Sprint - RTTY
March 19th & 20th - Russian DX Contest
March 26th, 27th – CQ WW WPX Contest - SSB

NEWS FROM THE MILKHOUSE

December Visitors = 121

Throughout 2010 many members were involved in upgrading the capabilities of the Milk House. Many of these improvements were documented throughout year and have culminated in creating a multi-operator, multi-mode station. With the exception of EME and satellite operations, the Milk House is capable of operating virtually any mode, on any band available to the amateur radio operator.

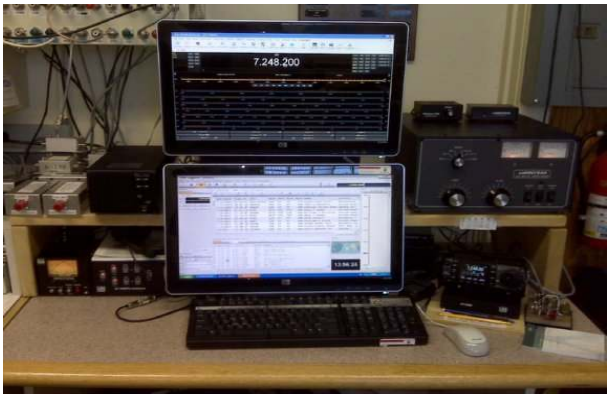
The current antenna configuration at the Milk House include:

Fan Dipole for 160, 80, 40, 20, 15, 10 meters, configured as an inverted V with the peak at 80 ft.
Off Center Fed wire for 80, 40, 20, 17, 12, 10, 6 meters at 50ft.
Dipole for 40 and 15 meter at 40 ft.
Cushcraft R7 Vertical for 40, 30, 20, 17, 12, 10 meters
20 and 40 meter delta loops that can be put up temporarily.

All antennas pass through Poly Phasers and Current Isolator/Baluns as they enter the Milk House. Antennas can be switched to any radio via a patch panel.

Radios include:

Yaesu FT-1000D (200 Watts)
Dual Receivers
Filters: 250, 500, 2.0k, 2.4k
FIF-232C (Computer Control)
MFJ Voice Keyer
Signal Link USB
SP-5 Speaker with Timewave DSP
MD-1 Microphone



Icom IC-7000
LDG 1000Pro Auto Tuner
LDG AT- 700 Tuner (for portable ops)
AL-811H Amplifier
ARB-704 amplifier relay buffer
Signalink USB
Winkeyer
Vibroplex paddle
Icom SP-23 Speaker
Heil Traveler Headset

IC-706MIIG
LDG Z-100 Autotuner
Icom SM-20 Microphone

FlexRadio Systems Flex-5000A
Dual Receivers
Internal Auto Tuner
Power SDR v2.0.16 (Beta)
Woodbox Tmate (CAT/VFO)
Bencher Paddles
AL-80A Amplifier
Palstar AT4K Tuner
Heil Pro Set Quiet Phone

Visit your club station and work some contacts. The Milk House is open Tuesday and Wednesday evening at 7pm and most Saturdays.

de **Dave / K3GMT**

THE 2011 DLARC (2-METER) SPRINT

This years event will be held on Saturday, April 9, from 10:00AM until 11:00AM EDST.
All activity will be on 2-Meter **SIMPLEX** in the 146MHz portion of the band. Each individual simplex frequency will have a letter assigned as if it were a different band as hereby shown,

146.43=A, 146.46=B, 146.49=C, 146.52=D, **146.55=E** and **146.58=F.**

It is important that the letter designation must be entered in your log for each contact. You are encouraged to make QSO's with each station on as many different frequencies as you can, (see scoring). Times should be entered for each contact.
The **EXCHANGE** will be a personally chosen 3 letter group. Suggested is the 3 letter abbreviations for the PA Counties as used in the PA QSO Parties. Or, you can use your personal initials. Choose one of the county abbrevs as shown here,
ARM, ADA, BUX, BRA, CMB, CAR, DAU, DCO, ERI, FAY, FRA, GRE, HUN, INN, JUN, LAW, LUZ, MGY, MER, NUM, NHA, PHI, POT, SCH, SUS, TIO, UNI, VEN, WAR, WAY, YOR.
SCORING will be **ONE** point for each contact, (all frequencies totaled). A **multiplier** will be determined as follows; **ONE** multiplier will be awarded for each station that is contacted on a minimum of 4 different Frequencies.
These requirements will make it truly a sprint atmosphere. Chit-chatting will be less productive, so be forewarned. If you want to make a real splash then be sure to have all the Frequencies programmed into your radios.
Log requirements are; Each page must show in the header your **CALL** and your chosen **3-LETTER** exchange sent. The individual log entry must include; **TIME, FREQ LETTER, CALL and PERSONAL 3-LETTER INFO RECEIVED.**
Final score may be your arithmetic, but will be checked by the committee.
Logs may be mailed to **Pete / NL7XM**, or to me, or may be turned in at the May meeting. The winner awards will be made at the June meeting. A list of the scores will be available. [If you work 25 people on all 6 Freqs, (that's 150 QSO's) which would give you a multiplier of 25, your score (max.) would be 3750 points. Surely possible, but? 150 Q's in one hour?]
Questions? e-mail to **w3tdf@ptd.net**

ARISSat-1

Amateur radio satellite that will spark the imaginations of school students

Mike Schaffer / KA3JAW

That spark will be known as “Amateur Radio on the International Space Station Satellite – 1 (ARISSat-1), also known as “KEDR” in the Russian Federation - after Yuri Gagarin's call sign in celebrating the 50th anniversary of the first manned space fight on April 12, 1961. The satellite will have it's own special call sign - “RS1S”.

On Thursday, January 27, 2011 at 0131 GMT “KEDR” blasted-off up to the International Space Station (ISS) aboard a 24-foot long Russian Progress M-09M resupply vehicle attached atop a Soyuz-U rocket from Baikonor Cosodrome, Kazakhstan. Two days later, at 0239 GMT Progress automatically docked itself to the open port of the Pirus module while orbiting 220 miles above the south Atlantic Ocean, off the coast of Uruguay in South America.

If all goes according to a revised schedule set for July 2011, KEDR will be hand deployed by one of the five Expedition 27 flight engineers during a Extra Vehicular Activity (EVA-29) spacewalk. The satellite is cube shaped at 21 x 21 x 15 inch's with a mass of 66 pounds. It has four corner handles for the cosmonaut to manhandle the satellite during the spacewalk while wearing their Orlan spacesuit.

A fully charged Russian Orlan spacesuit 825M3 storage battery consisting of 18 rechargeable silver-zinc cells producing 28 vdc has been shipped separately to the ISS to be installed into the satellite. Six solar panels combined will produce maximum peak power of 114 watts. Each panel produces 50 vdc at 19 watts.

Multiple transmissions are created by a new software-defined transponder (SDX) board. This feature will be the first use of (SDX) in an Amateur Radio spacecraft and will be a technology demonstrator as it uses digital software to modulate/demodulate radio signals, rather than analog hardware.

SSTV cameras, four of them will be mounted on ARRISAT-1. Software will select the photos taken from the cameras with illuminated pixels to be transmitted to the ground on the FM channel using Robot-36 protocol.

Kursk University in Russia developed an experiment which consists of a magneto-ioniation transducer sensor housed inside an aluminum cylinder mounted topside of the satellite that will measure the unevenness of the residual atmosphere density. It will sample the amount of vacuum each day for ninety minutes, sending down data mapping the vacuum changes as the satellite slowly spirals into the atmosphere.

KEDR will transmit four different modulated signals (FM, SSTV, CW, BPSK) simultaneously across it's 40 Khz pass-band that includes a U/V (70cm uplink/2 meter downlink) 16 kHz wide, linear inverting (Tx: LSB/Rx: USB) transponder that has been designed to be RF sensitive, therefore it can be worked with just five watts CW, ten watts single-sideband modes.

Two meter band FM voice downlink will broadcast 24 recorded student greetings in 15 languages. It will cycle between voice ID, voice telemetry values, SSTV images, CW signal, a new 1k BPSK signal with a list of call signs of developers that were instrumental with the ARISS program.

The average time to capture the signals from the satellite will be eight minutes, with multiple passes per day. Life expectancy is within 8 – 12 months, later it will re-enter Earth's atmosphere - in which it will disintegrate.

If a spark of imagination went off in your head after reading the above details and would like expanding general and technical information, I highly suggest you search for the February 2011 issue of QST, the premier monthly magazine dedicated to Amateur Radio.

MONTHLY MEETING THEME WINNER

The winner of the February Theme prize for the ugliest sweater was Doreen / KB3PDL

DLARC FORUM

Subscribing to the DLARCforum will insure your accessibility to the DLARC's latest news and information pertaining to the club and its activities. This is also a way to address any questions to the membership in general, on any amateur radio and/or DLARC subject. Additional forum information is available in the January 2009 issue of the OK Corral. Go to http://mailman.qth.net/mailman/listinfo/dlarcforum to sign up for the DLARCforum.

EMCOMM BILL REINTRODUCED IN NEW CONGRESS

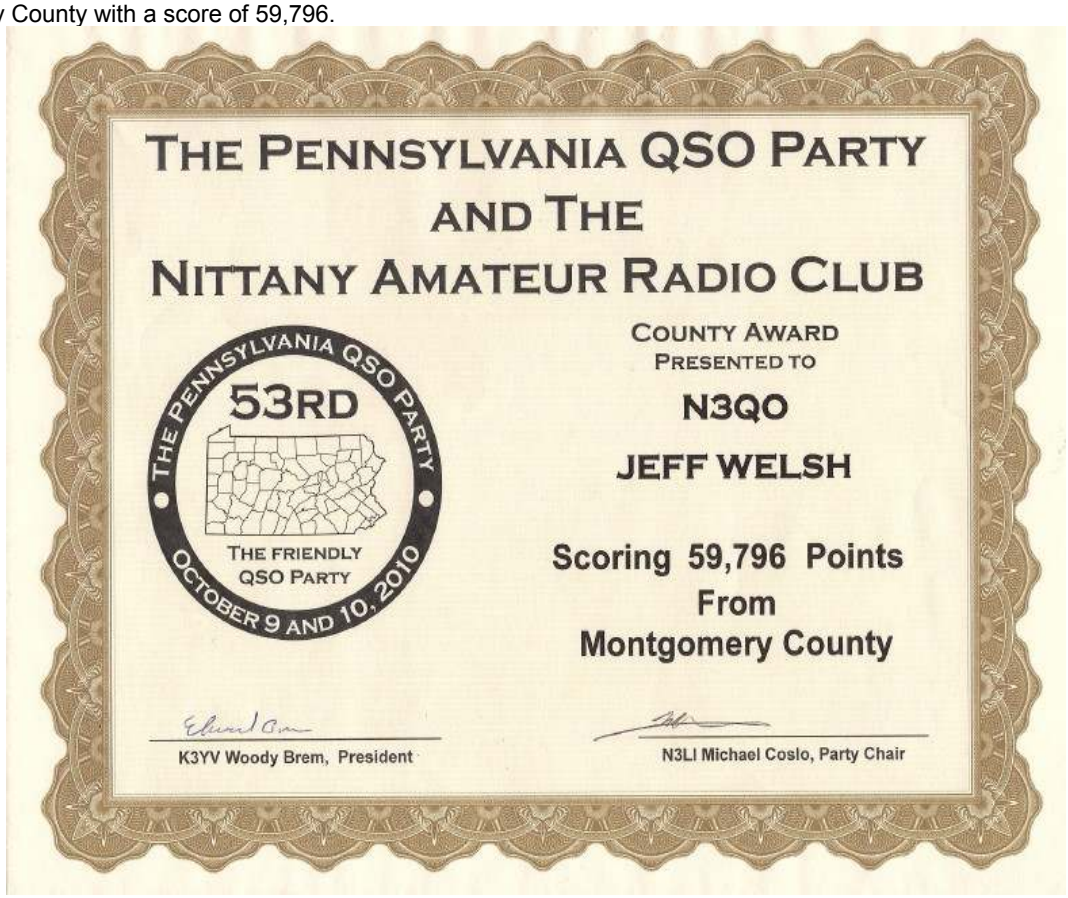
The Amateur Radio Emergency Communications Enhancement Act, which died at the end of the 111th Congress, has been reintroduced in the 112th Congress as HR 81. The sponsor is Representative Sheila Jackson Lee (D-TX-18). The new bill -- which was introduced on January 5 -- has been referred to the House Committee on Energy and Commerce.

Rep Jackson Lee first introduced the bill -- HR 2160 -- in the 111th Congress in April 2009. It gained an additional 41 co-sponsors but did not progress out of the committee of jurisdiction. A similar bill introduced in the Senate -- S 1755 -- made it all the way through that body in December 2009, but likewise was not taken up by the House. The objective of the bill -- which is supported by the ARRL -- is for the Secretary of Homeland Security to study the uses and capabilities of Amateur Radio communications in emergencies and disaster relief and to identify and make recommendations regarding impediments to Amateur Radio communications, such as the effects of private land use regulations on residential antenna installations.

"We are hopeful that this early start will lead to success in the new Congress," commented ARRL Chief Executive Officer David Sumner, K1ZZ.

2010 PA QSO PARTY

Jeff / N3QO received this certificate for his participation in the 2010 Pennsylvania QSO Party. He took first place in Montgomery County with a score of 59,796.



ATLANTIC DIVISION NEWS

--- Atlantic Division Award Nominations Being Sought ---

Do you know someone who has really stood out in their service to amateur radio? That service could be in: technical abilities; public service; training; education, you name it. Wouldn't it be an honor for that individual or group to be recognized by their peers for their time and talents spent in good service to others? Why not nominate them for one of the Atlantic Division Awards that they qualify for? Atlantic Division awards are presented annually to the hams who make us proud to be part of the Amateur Radio Service. Nominations are taken from the ham community. Selection is made by an Awards Committee chaired by the Division Vice Director. The awards are conferred at the annual Division Convention. Amateurs of any license class may be nominated for awards. Nominations must come from within the Atlantic Division.

AMATEUR OF THE YEAR

The Radio Amateur in the Atlantic Division whose record merits recognition for outstanding contributions to the Amateur Radio Service. He or she is active on the air and in Amateur Radio organizations. The Amateur of the Year is an all-round Amateur, whose activities, attitudes, and achievements may serve as an example to others. Devotion to Amateur Radio is balanced with attention to work responsibilities and family life. The Amateur of the Year exemplifies the "Amateur's Code." In selecting the award recipient, emphasis is placed on service to others rather than self, diversity of Amateur Radio interests and activities, evidence of continuing self-challenge, and outstanding contributions to Amateur Radio in the year preceding nomination.

KEITH FREEBERG N2BEL EDUCATOR OF THE YEAR

This award is named after Keith Freeberg N2BEL who was very involved in amateur radio and amateur radio training in the Western New York Section. Keith had a unique ability to teach amateur radio to people of all ages. He had an affinity for working with young people and was very involved with one of the few Radio Coaches programs. It is very fitting that this award is dedicated to his memory and that the successful candidate demonstrate an ability to successfully train people in amateur radio. The emphasis is on quality of training and not pure number of people trained.

TECHNICAL ACHIEVEMENT

The Radio Amateur(s) in the Atlantic Division whose technical excellence exemplifies "continuation of the Amateur's proven ability to contribute to the advancement of the radio art," and whose attitude exemplifies the highest dedication to service to others and to science, rather than self. Particular value will be placed on evidence of continuing contributions to the Amateur Radio Service. Groups of two or more Amateurs may be nominated for a joint award in this category. Technical achievement may be demonstrated through activities such as the following: publications, research and development, creativity in hardware/firmware/software, systems design and implementation, technical instruction, application of advanced technology to public service communications. This award is presented at the discretion of the Awards Committee, not necessarily every year. The nomination period closes Saturday, February 26, 2011 for this nomination.

For more information, go to the Atlantic Division Website:
http://www.atldiv.org/AtlAwards.htm

--- FAR Scholarships Announced ---

The Foundation For Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to administer forty–eight (48) scholarships for the academic year 2011 – 2012 to assist licensed Radio Amateurs in the pursuit of higher education. The Foundation fully funds two of these scholarships. The remainder are administered by the Foundation, without cost, for various donors. Licensed Radio Amateurs may compete for these awards. They must be planning to pursue a full time course of studies beyond high school and be enrolled, or have been accepted for enrollment, at an accredited university, college or technical school.

The awards range from $5,000 to $250 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs. Non-US residents are eligible to apply for some of the scholarships. Clubs, especially those in California, Delaware, Florida, Maryland, Ohio, Pennsylvania, Texas, Virginia and Wisconsin (areas of preferred residence for some of the scholarships), are encouraged to announce these opportunities at their meetings, in their club newsletters, during training classes, on their nets and on their club's web pages.

Additional information and an application form may be requested by letter or QSL card, postmarked prior to January 31, 2010 from:

FAR Scholarships
Post Office Box 911
Columbia, MD 21044-0911
or, via email from dave.prestel@gmail.com.

Applications are also available for download from the Foundation's web site http://www.farweb.org/.

2011 MS WALK

The MS walk will be held Sunday May 1 2011 at Coca-cola park, Directions are:
Take U.S. 22 W to Exit for Airport Road South. Merge Right off exit ramp onto Airport Road South. Make a Right on American Parkway (at light, with intersection). Make a Left into Coca-Cola Park complex.

Registration starts at 9 A.M.
Walk starts at 10 A.M.
(Rain or Shine)

Our members should show up at 8:30 am to get into place,
Thank you, **Howard / WO3P**

THE DELAWARE-LEHIGH AMATEUR RADIO CLUB IS OFFERING FREE AMATEUR RADIO CLASSES, SPRING, 2011:

The spring entry level amateur radio classes will begin March 8th at the Northampton County 911 Center. The class sessions will run from 7 to 9 PM Tuesdays for 9 weeks, ending with a DLARC VE session. General and Extra classes may also be available. To enroll in the classes and/or more details, including directions to the class location and answers to your questions about amateur radio, please telephone 610-432-8286 or email ke3aw@arrl.net.

FRACTAL ANTENNAS: HYPE OR HOPE

By **Dan Romanchik / KB6NU**

QRZ.Com currently has a very interesting item on fractal antennas (http://forums.qrz.com/showthread.php?t=277623). While the idea of applying fractals to the design and construction of antennas has been around for quite some time, very few hams have actually built them, and there are currently no companies building commercial fractal antennas for the ham radio market. The question, of course, is why?

Those that are hyping fractal antennas—most notably W1YW, CEO of Fractal Antenna Systems—claim several advantages. These advantages purportedly include wider bandwidth and smaller size when compared to traditional antennas, such as verticals and dipoles. Those that are trying to debunk these claims contend that this is all just hogwash, and that there's no real scientific basis for these claims.

One thing that's confounding this debate is that there have been very few articles published on the topic. For commercial reasons, W1YW has made his articles unavailable. He says that he will be publishing something real soon now, but there is nothing definite at this point.

There is at least one article on the Internet that describes the construction of a fractal antenna for amateur radio use. "FYI:FYQ: Another look at the Fractal Quad Yagi" (http://www.scribd.com/doc/18788401/FYIFQY) was published in the October 1999 issue of 73 magazine. It describes the construction of a two-element, 10m antenna. Like most 73 articles, it's not incredibly technical, though, and doesn't really contribute to the technical debate, except to demonstrate that physically small antennas can be made using fractal design.

The PDF contains several photos of the antenna. It's a crazy contraption that looks relatively difficult to build. So difficult, in fact, that it makes me wonder if it's even worth it to try building one. After all, 10m antennas are not really all that big or all that difficult to build to begin with.

Even more interesting than the antennas are the personalities on both sides of the debate. The QRZ.Com discussion quickly devolved into a flame war, with neither side scoring a knockout.

Personally, I think the brouhaha is much ado about nothing. It seems to me that it's been demonstrated that you can build antennas using fractal design techniques. They are physically smaller than traditional antenna designs, but you really don't get something for nothing. Overall, they don't have as much gain as yagis or quads, and they're more complex to build.

My opinion on this is that if W1YW can build antennas that radiate a signal and can sell those antennas to someone, then more power to him. In the end, his company will live and die by how well, his antennas work and how much they cost when compared to antennas from other companies.

As for me, I think I'll stick with the more traditional HF antennas. If I need to make my antennas smaller, I'll use loading coils or designs such as the Moxon. I may not be on the bleeding edge of technology, but I'll certainly avoid a lot of headache trying to figure out who's right.

REDNERS' SUPERMARKETS SAVE-A-TAPE PROGRAM

Here's how it works:

Redner's has a terrific program to support the Club **AT NO COST TO THEM**, if our members simply sign up for a Gas Card that records their shopping points, and give their cash register receipts to, **Pete / NL7XM,** He'll do the rest. **Note: This does not affect your gas points in any way.**

HELP THE ENVIRONMENT

Donate your old, empty printer ink cartridges to the Club for recycling. Any brand, model, size or shape; color or black. Please bring them to the meeting in a leak proof ziplock type baggie and give them to Pete / NL7XM. This simple act can help your Club by reducing recurring expenses, and make you feel a lot better about our environment**.**

DELAWARE-LEHIGH AMATEUR RADIO CLUB RESPONDS

On February 1st with an ice storm predicted, Northampton County EMS called upon the DLARC RACES team to stand by for possible posting at the 911 Center and any emergency shelters that would be set up. In the absence of **Al / W3CE**, **George / N3SQD** took the lead and called up volunteers to man the 911 center and a listing for the shelters. **Ken / N3IYX** manned the Milk House and set up a four county D-Star net. These positions were manned until the county decided that the emergency had passed. George reported that the county was impressed with the communication coverage and efficiency in that the RACES team demonstrated.

MARCH PROGRAM

The March program is another Mini DLARC ham fest. Time to clear the dust collectors out of your shack. Bring your excess gear to the March meeting. Tables are free but advance notice would be appreciated if you plan to participate. Send an email to k3gmt@k3gmt.net to reserve a table.

The ITU - International Telecommunication Union

If you were to ask most amateur radio operators what entity is responsible for granting privileges to use portions of the radio spectrum for amateur radio purposes the answer would likely be their own national telecommunication authority. However, that's only partially true. The ultimate authority for the use of the radio spectrum is the International Telecommunication Union (ITU). It is desirable that each amateur radio operator understand what the ITU is and why its work and decisions are important.

Most countries are Member States of the ITU and by way of treaty generally agree to be bound by the decisions of the ITU when it comes to the usage of the radio spectrum. Each country can decide that a certain use determined by the ITU may not apply in their own jurisdiction. It is not common for countries to do that but it is within their sovereign authority to do so.

The International Telecommunications Union is a United Nations agency that deals with information and communications technology issues. They have an extensive web site atwww.itu.int that details much of their work. The ITU is based in Geneva, Switzerland and includes in its membership 192 Member States and more than 700 Sector Members and Associates.

ITU has coordinated the shared global use of the radio spectrum, promoted international cooperation in assigning satellite orbits, worked to improve telecommunication infrastructure in the developing world, established the worldwide standards that foster seamless interconnection of a vast range of communications systems and addressed other global concerns, such as mitigating climate change and strengthening cybersecurity.

The top staff official of the ITU is its Secretary-General, Dr. Hamadoun Toure who is also a licensed radio amateur with the call sign HB9EHT. There are three sectors in the ITU: Radio- communication (ITU-R), Development (ITU-D) and Standardization (ITU-T). The IARU is a Sector Member in both the ITU-R Sector and the ITU-D Sector. The IARU fully participates in both of those sectors by attending any and all meetings that involve issues that may impact the amateur or the amateur-satellite services. The Secretary-General, the Deputy Secretary-General and the Directors of the three ITU Sectors are elected to four-year terms by the Member States at Plenipotentiary Conferences held every four years. The IARU is a recognized international telecommunication organization and is invited to participate as an observer at the Plenipotentiary Conferences. The most recent "Plenipot" was held in October, 2011 in Guadalajara, Mexico.

The ITU Council was established in 1947 under the name Administrative Council, following a decision taken by the 1947 Plenipotentiary Conference in Atlantic City, New Jersey, United States. The Council comprises a maximum of 25% of the total number of Member States, which are elected by the Conference with due regard to the need for equitable distribution of Council seats among the five world regions (Americas, Western Europe, Eastern Europe, Africa, Asia, and Australasia). The current Council is comprised of 48 members.

The role of Council is to consider, in the interval between Plenipotentiary Conferences, broad telecommunication policy issues to ensure that the Union's activities, policies and strategies fully respond to today's dynamic, rapidly changing telecommunications environment. It also prepares a report on the policy and strategic planning of the ITU. In addition, Council is responsible for ensuring the smooth day-to-day running of the Union, coordinating work programs, approving budgets and controlling finances and expenditures. Finally, Council also takes all steps to facilitate the implementation of the provisions of the ITU Constitution, the ITU Convention, the Administrative Regulations (International Telecommunications Regulations and Radio Regulations), the decisions of Plenipotentiary Conferences and, where appropriate, the decisions of other conferences and meetings of the Union. The IARU has attended several ITU Council meetings in the recent past.

The ITU-R Sector is very important for radiocommunication services, including the amateur and amateur-satellite services. Every 4 or 5 years the ITU holds a World Radiocommunication Conference (WRC) to revise the international Radio Regulations. It is the job of WRC to review, and, if necessary, revise the Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits. Revisions are made on the basis of an agenda determined by the ITU Council, which takes into account recommendations made by previous world radiocommunication conferences. The general scope of the agenda of world radiocommunication conferences is established four to six years in advance, with the final agenda set by the ITU Council two years before the conference, with the concurrence of a majority of Member States. The next WRC is scheduled for 23 January to 17 February 2012, just one year away.

Under the terms of the ITU Constitution, a WRC can: 1. revise the Radio Regulations and any associated Frequency assignment and allotment Plans; 2. address any radiocommunication matter of worldwide character; 3. instruct the Radio Regulations Board and the Radiocommunication Bureau, and review their activities; 4. determine Questions for study by the Radiocommunication Assembly and its Study Groups in preparation for future Radiocommunication Conferences.

There is a lengthy preparatory process for every WRC in which the IARU participates as a Sector Member. There are usually countless meetings dealing with each agenda item that has been determined to be on the agenda for a WRC. Many of those agenda items can, and do, have a substantial impact on the amateur radio usage of portions of the radio spectrum. It is important for the IARU to participate to "protect our frequencies" and when the opportunity presents itself, to expand our spectrum.

ITU-R Study Groups and Working Parties address each agenda item on the WRC agenda and try to arrive at a consensus and recommendation(s) how the agenda item may be addressed or dealt with at the WRC. Studies are conducted many times to determine how a proposed new usage may impact the other services, or not. Each of these agenda items are thoroughly discussed for at least a couple of years leading up to the WRC. You can imagine how important it is for the worldwide amateur community that IARU participate in the entire study group/working party process.

ITU-D is where much of the ITU's work on disaster response takes place. The development arm of the ITU considers emergency telecommunications an integral part of its projects integrating telecommunications/information and communication technology in disaster predication, detection, and alerting. Emergency Telecommunications play a critical role in the immediate aftermath of disasters by ensuring timely flow of vital information which is much needed by government agencies, and other humanitarian actors that are involved in rescue operations and providing medical assistance to the injured. IARU's task in the ITU-D Sector is to ensure that amateur radio's role in disaster communications is understood and appreciated by the ITU members. The ITU-D Sector also conducts a worldwide conference. The current schedule calls for a World Telecommunication Development Conference every 4 years. In 2010, the WTDC was held in Hyderabad, India in late May and early June. IARU participated in the conference.

The ITU also sponsors regional and global exhibitions called TELECOMS. An ITU Telecom offers a global ICT community platform that gathers stakeholders from across the telecommunications/ICT sector to connect, collaborate and create the future ICT landscape. Forums or seminars related to ICT are conducted at the Telecoms and IARU has participated in such forums, usually on topics related to emergency communications.

In one of the ITU buildings, there is a permanent amateur radio station, 4U1ITU. 4U1ITU is the club station of the International Amateur Radio Club.

In an upcoming IARU E-Letter, I will describe the organization of IARU and how it works within the ITU and the regional telecommunication organizations like CEPT, CITEL and APT to ensure amateur radio's continued place in the radio spectrum landscape.

73,

Rod Stafford / W6ROD

WHY HAM RADIO ENDURES IN A WORLD OF TWEETS

By David Rowan, Wired UK

Somehow it makes little sense that amateur “ham” radio continues to thrive in the age of Twitter, Facebook and iPhones. Yet the century-old communications technology — which demands such commitment that you must generally pass an exam to receive a license — currently attracts around 350,000 practitioners in Europe, and a further 700,000 in the United States, some 60 per cent more than 30 years ago.

What is it about a simple microphone, a transmitter-receiver and the seductive freedom of the open radio spectrum that’s turned a low-tech anachronism into an enduring and deeply engaging global hobby?

For a start, there is that thrill in establishing a magical person-to-person long-distance radio conversation that no commodified internet communication can compete with. In a world of taken-for-granted torrents of e-mails, instant messages and Skype video-chats, there is a purity and a richness in the shared experience of exchanging “73s” during a live “QSO” with strangers on another continent.

Why, the very ham slang that defines the community — 73 translating as “best regards”, and QSOs as two-way conversations — tells practitioners that they belong to a special, mutually curious and highly courteous club. And the fact that DXers (long-distance amateur operators) take the trouble to acknowledge received transmissions and conversations by sending their new contacts custom-designed postcards through the analog postal service … well, that is charm itself in a world where it’s considered excessive to end a communication with anything more effusive than a “bestest”.

You only need study a handful of these cards to understand, even today, the old-fashioned excitement of connecting with a stranger who might be many thousands of miles away. The postcards — known as QSL cards — can be as quirky and personality-filled as the senders themselves. At times humorous and characterful, at others terse and geographically factual, they have naturally inspired their own subculture that has spurred DXers to collect and display them much as they would colorful foreign postage stamps.

The cards invariably display as a minimum some basic factual information about the sender. This will generally include the radio operator’s individual call sign, his (there are not too many “hers”) location, and a few details about the signal detected. And just to show that the Twitter generation did not invent the linguistic contractions exemplified in text-message speak, QSL cards too rely on slang and abbreviations to pack information into a tight space.

So cards will display the “RST” — the received radio station’s readability, signal and strength; perhaps details of the sender’s “XMTR” (transmitter) and “ANT” (antenna) ; and occasionally a request to reciprocate, expressed as the shorthand “PSE QSL TNX” (please send an acknowledgment card, thanks) or the more chatty “hw abt a crd om? ” (How about a card, old man?) Old man, by the way, is not a reference to the recipient’s age — just as, on the rare occasions when the DXer is female, she is referred to as a “YL”, a young lady, whatever her chronological age.

DXers have been exchanging QSL cards since at least 1916, when Edward Andrews of Philadelphia — call sign 3TQ — recorded the receipt of a card from 8VX of Buffalo, NY. Over the next decade, the hobby took off — so much so that, by 1928, Paul Segal (W9EEA) had formulated an “amateur’s code” setting out six key qualities to which practitioners must adhere: “The radio amateur is considerate… loyal … progressive … friendly … balanced … [and] patriotic, ” Segal specified, always ready for service to country and community.

Since then, the hobby has captivated royalty and celebrities alike. Among the most celebrated DXers have been the late King Hussein of Jordan (call sign JY1), Queen Noor (JY1H) and Juan Carlos, King of Spain (EA0JC). Had you picked the right moment, you could have chatted to Morocco's King Hassan II (CN8MH), the former Sultan of Oman (A41AA) or Bhumiphol Adulayadej, King of Thailand (HS1A).

If monarchs have never appealed, you could instead have shot the breeze with Marlon Brando (FO5GJ), prime minister Rajiv Ghandi of India (VU2RG) or the CBS anchorman Walter Cronkite (KB2GSD) — not forgetting the singer Cliff Richard (W2JOF), Joe Walsh of The Eagles (WB6ACU) and genuinely beyond-this-world DXers such as Yuri Gagarin and Helen Sharman.

It's little wonder that collectors describe the buzz of receiving a new exotic foreign card as akin to that of philatelists discovering a rare commemorative stamp. That explains why the late Jerry Powell, a New Jersey ham between 1928 to 2000 (W2OJW), proudly displayed the 369 cards he had gathered from Okinawa to Papua.

Another obsessive collector, Thomas Roscoe of Brookfield, Ohio (K8CX), has created an awe-inspiring QSL museum where he displays his trophies from Afghanistan to Zimbabwe. (You can see his individual cards at hamgallery.com). Take a journey with Roscoe to Wallis & Futuna Island and Western Kiribati, to Kyrgyzstan and Kerguelen Island; visit "states" whose international status is somewhat contentious, such as the Republic of Ichkeria and the Principality of Sealand; celebrate one-off events such as Operation Desert Storm in Saudi Arabia, or the Queen Mary's last voyage.

But it's not simply the romance of card-collecting that continues to inspire DXers, nor the blunt urge to communicate. Instead, hams talk proudly about belonging to a global "brotherhood, " with few rules and little bureaucracy and the ability to transcend language, religion and race — while never quite knowing who they might come in contact with.

Plus, of course, the chance to be a genuine real-life hero. Days after a magnitude 7.3 earthquake devastated Haiti in January, amateur radio operators were busy at work connecting rescuers within the country and contacting survivors' families. When a magnitude 8.8 earthquake hit Chile the next month, and the phone network collapsed, a radio operator named Alejandro Jara broadcast the first information from the ground.

Hams stepped in on September 11, 2001, and during Hurricane Katrina. Then there was Tony Pole-Evans, a bird lover with a short-wave radio on Saunders Island, who famously risked his life during Argentina's 1982 invasion of the Falkland Islands to radio the first news back to Britain that 1,000 soldiers had landed on Goose Green.

How exciting it must have been to intercept that particular radio call. And boy, what a QSL card to top one's collection. You can tweet all you like, but this is the way to communicate.

DID YOU KNOW?

"Stewardesses" is the longest word typed with only the left hand. "lollipop" is the longest word typed with your right hand. No word in the English language rhymes with month, orange, silver, or purple. "Dreamt" is the only English word that ends in the letters "mt". Our eyes are always the same size from birth, but our nose and ears never stop growing. The sentence: "The quick brown fox jumps over the lazy dog" uses every letter of the alphabet. The words 'race car,' 'kayak' and 'level' are the same whether they are read left to right or right to left (palindromes). There are only four words in the English language which end in "dous": tremendous, horrendous, stupendous, and hazardous. There are two words in the English language that have all five vowels in order: "abstemious" and "facetious." TYPEWRITER is the longest word that can be made using the letters only on one row of the keyboard. A cat has 32 muscles in each ear. A goldfish has a memory span of three seconds. A "jiffy" is an actual unit of time for 1/100th of a second... A shark is the only fish that can blink with both eyes. A snail can sleep for three years. Almonds are a member of the peach family. An ostrich's eye is bigger than its brain. Babies are born without kneecaps. They don't appear until the child reaches 2 to 6 years of age. February 1865 is the only month in recorded history not to have a full moon. In the last 4,000 years, no new animals have been domesticated. If the population of China walked past you, 8 abreast, the line would never end because of the rate of reproduction. Leonardo Da Vinci invented the scissors. Peanuts are one of the ingredients of dynamite! Rubber bands last longer when refrigerated. The average person's left hand does 56% of the typing. The cruise liner, QE 2 moves only six inches for each gallon of diesel that it burns. The microwave was invented after a researcher walked by a radar tube and a chocolate bar melted in his. Pocket. The winter of 1932 was so cold that Niagara Falls froze completely solid. There are more chickens than people in the world. Winston Churchill was born in a ladies' room during a dance. Women blink nearly twice as much as men. All the ants in Africa weigh more than ALL the Elephants!! Now you know (a little) more than you did before!!

MS 150 PENNSYLVANIA DUTCH BIKE TOUR

The MS Society announced that there would not be a Pennsylvania MS 150 Bike Tour for 2011. No other details available at this time.

WEBSITE OF THE MONTH

http://www.smartplanet.com/technology/video/navy-engineers-develop-seawater-antenna/496904/

WEDNESDAY NIGHT NETS

Additional Net Controls are needed for the Wednesday Night ARES, RACES & DLARC net. If we have enough interested operators, it will only be necessary for each operator to have only one net session in each three month period. Actually 13 weeks in a period, so 13 net controls would be ideal, and maybe some extras to fill in if needed. This would give us a pool of experienced controls, for any emergency which would arise. Interested operators should contact **Don / KC3II** at kc3ii@arrl.net. The NIMS IS-700 and ICS-100 courses are not required to be a net control, but should the need arise and we do supply controls and operators for real emergencies, then the courses requirement will be in effect and EMA issued IDs will be needed to be on the scene of an emergency.

F.Y.I.

The April Program will be **Bob / NE2C** "Bits & Pieces" -- Projects you can build from surplus parts.

The D.L.A.R.C. meets the "FIRST" Thursday of each month. Membership, friends and interested persons meet at the Nancy Run Fire Company Social Hall (3564 Easton Avenue, Bethlehem, Pa. 18020) at 7:30 PM. Committee reports and announcements of all present and future activities will be presented at that time. Followed by that month's program.

The EASTERN PENNSYLVANIA District 2 ARES Net meets every Wednesday at 1930 hours local time. (Just after the DLARC Net) On 147.255 (pl 162.2). And linked to 449.375 on Blue Mountain, 443.350 in Allentown and 147.180 in Berks County.

D-Star Mid-Atlantic Regional net meets the second and fourth Tuesdays of each month on the 147.165 port with a number of other repeaters in Eastern Pennsylvania, New Jersey and New York City area .

The **OK Corral** is an organization publication for the purpose of informing members of the D.L.A.R.C. of educational and training opportunities, club events, relevant news articles and a monthly calendar of daily activities, meetings and dates. Every member of the D.L.A.R.C. Is welcome to contribute articles of interest to this newsletter. Opinions, items of interest, and even suggestions towards the improvement of newsletter and/or the DLARC, itself would also be accepted, as a sort of "Letters to the Editor" section.

The Milkhouse telephone number is 484-895-7038.

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PHONE NUMBERS FOR THE EXECUTIVE COMMITTEE OF THE DLARC CAN BE FOUND ON THE WEBSITE / MEMBERSHIP LISTING

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 the Nancy Run Fire Company
TALK IN ON 146.700 (PL 151.4)

THE W3OK TRUSTEE --- DON REAMER / KA3JWE

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ARES, RACES AND DLARC NET

All Radio Amateurs are welcome to participate in the ARES, RACES and DLARC net. This net meets Wednesday at 1900 hours local time, on the W3OK Repeater 51.76, 146.70 and 444.90 (pl 151.4). With an alternate frequency of 147.370 (167.9) W3OI Repeater.

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