QRZ NEWS

A MONTHLY PUBLICATION OF
SOUTHERN PENNSYLVANIA AMATEUR RADIO CLUB, INC
PO BOX 1033 - LANCASTER, PA 17608-1033
(Founded June 1960)
AN AFFILIATED SPECIAL SERVICE CLUB OF THE ARRL, INC.
"Public Service through Communication"
Website: WWW. K3IR.org
Email address: k3ir@arrl.net
Repeaters: 145.230 - 449.975 - Packet 145.030 - ATV 923.250, FN10se
Club site 1715 Breneman Road, Rapho Twp. (Manheim P.O. 17545 no delivery)

December 2014

Happy Holidays to All and A Great New Year

President's Message

SIX YEARS! That's how long I have been the president of SPARC. In spite of that the Club has not only survived but has actually grown. Eight years ago Mike, N3XPD took over a group that was long on debt, short of members and very short in spirit. In spite of the challenges a small group of grumpy old men vowed to keep the doors open. Two years later the club had turned the corner. Somehow, I was elected president, and my arm still hurts!

Let's look at what we have accomplished. Our debt is paid off. The troublesome and expensive diesel generator and accompanying underground fuel tank have been removed and replaced with a new propane powered standby system. We have added new towers, antennas, and radios. We have increased our contest participation, and one of the things that I am most impressed with is that in 2014 SPARC members accumulated over 260 man (and lady) hours of public service. But the number of hours is not as important as the fact that those hours were contributed by 25 different SPARC members. I think that is a good indicator of the health of the club.

We now have our UHF repeater on the internet through the IRLP system. I think that is Internet Radio Linking Protocol but don't quote me on that. Anyway, what I do know is that we can link with other IRLP capable repeaters around the world.

About three years ago we were contacted by Moravian Manor about the possibility of establishing a ham radio station at Manor. The radio club never got off the ground but we started holding licensing classes there which brought us a good number of new hams.

But let's not dwell on the past. I see a great future at SPARC. We will install a new board of directors in January. After a long and bitter campaign I will finally be installed as immediate past president. Kevin will move to the president's chair, Scott, KN3A (a past president from many years ago) will assume the role of vice president. Peg, KB3SCA, a recent member, will become secretary, and Dave, AB3VJ will take over as treasurer. Mike, KB3YWG will remain on the board as a

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member at large as will Dave, N3LOM as repeater trustee.

So what do I see in the future. Well, we already have plans for a new building, and in fact we have raised about one fourth of the funds needed to begin construction.

One of the early students mentioned above, Jim, KB3ZGE, has taken over the classes at Moravian and is enjoying an excellent success rate. Not only are we gaining new hams, we are gaining SPARC members as well, but most important we are getting those new hams on the air.

Some new members, and some former members who have returned after pursuing careers across the country, have a strong interest in contesting. Those individuals are planning to form a contest committee to provide more opportunities for members to get involved in contests, while having Elmers to help them along.

My sincere thanks to all those who have offered their help and advice in the past six years. I am looking forward to stepping back and watching SPARC continue to grow and prosper in the years to come.

Seasons greetings to all. See you in 2015!

73,

Harry WA3FFK

Coming Events

Tuesday, 23 December 2014. The SPARC membership meeting normally scheduled for this date has been cancelled.

Tuesday, 27 January 2015, 7:00PM SPARC meeting at the Rapho Twp. Municipal Bldg., 971 N. Colebrook Rd., Rapho Twp. (Manheim P.O. 17545 for GPS).

Monthly Breakfast
The second Saturday at 0800 of every month is a SPARC breakfast at Gus's Keystone Restaurant, 1050 W. Main St, Mt Joy, PA. Contact Gerry Wagner, KB3SSZ, for more details. Everyone interested in Amateur Radio is invited to attend. See http://guskeystone.com/ for restaurant details.

Other Events

Perihelion, January 4th 2am EST. The Earth's closest approach to the Sun and the approximate peak of the Winter Es season.

ARRL January VHF Contest

January 24-26, 2015 Begins 1900 UTC Saturday, ends 0359 UTC Monday. All authorized frequencies above 50 MHz (6 Meters). This is your chance to see how good your station is without the help of a repeater. Do not use the 146.520 FM simplex national calling frequency for contest contacts. This restriction does not apply on 224.500MHz and higher bands.

Editors Notes

This month we continue our discussion on the value of Morse Code with an article on learning methods by Jim Ibaugh. Harry Bauder has a volunteer in his current class to try out the FISTS teaching method. Note that much of the six meter DX mentioned in Chris Patterson's DX column is worked on CW.

The various JT65 versions support communications with stations below the noise level. This is great for communications on all weak signal work, but the computer requirements may not be available to less

sophisticated rare DX stations. Do they use Morse Code? Yes they do.

As usual, I need material for publication in this newsletter. Keep those cards and letters coming.

73, George, W3FEY

Six Meter DX Report

14 December 2014

There isn't a whole lot to report from this end. The band for the most part has been dead here. The trans-Pacific path opened from New Zealand and Australia to Central and South America and the West Coast in early December, and there has been some single hop sporadic E. A screenshot from ON4KST for December 13th shows both the trans-Pacific path and sporadic E activity in Europe and the USA. The trans-Pacific path first began with stations in New Zealand; more recently the path extended to VK. One thing of interest is the location of the VK stations getting in on the trans-Pacific activity. One might think the activity would be confined to stations on the East Coast of Australia, i.e., VK2, VK4, but John VK5PO near Adelaide in South Australia (PF95HJ) has made a number of contacts with US and Central American stations; and the path at time seems to extend to VK6 on the Western Coast of Australia. In the next few weeks, if we get real lucky, there could be an Es link to the trans-Pacific path for us in the Eastern US.

ON4KST Dec. 13, 2014 6m DX. See full size at the end of this newsletter.

The long-awaited Navassa DXpedition is a go and there will be "some" six meter activity. The station's call will be K1N and it now appears they will begin transport to the Island during the last week of January 2015. Activity is expected to last about two weeks. According to Bob K4UEE, one of the prime organizers, "We are getting a five element six meter beam from DX Engineering and it will be mounted on a 10m. mast. The plan is to have a beacon on most times...and we will ask that if no one answers when there is an opening, then notify us on another band that six meters is open. There will be no EME and we will be barefoot on some bands, including six meters, due to "green footprint" power restrictions. (solar, wind, batteries and small gensets)."

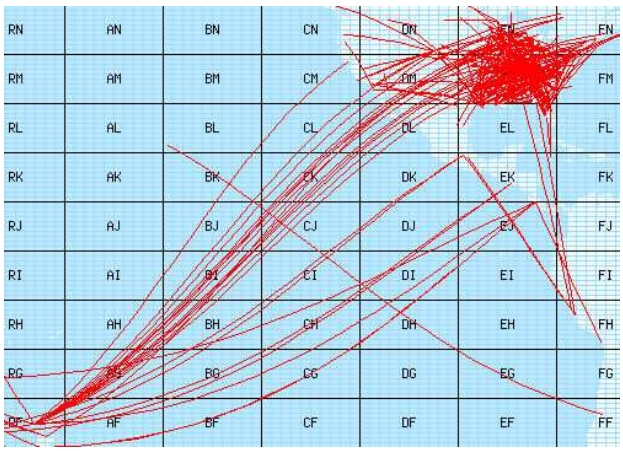
It seems to me that there might be some sporadic E in late January but nothing to count on; keep your fingers crossed for a Navassa contact. More information on the operation can be found at: http://www.navassadx.com/.

Merry Christmas and Happy Hanukkah to everyone.

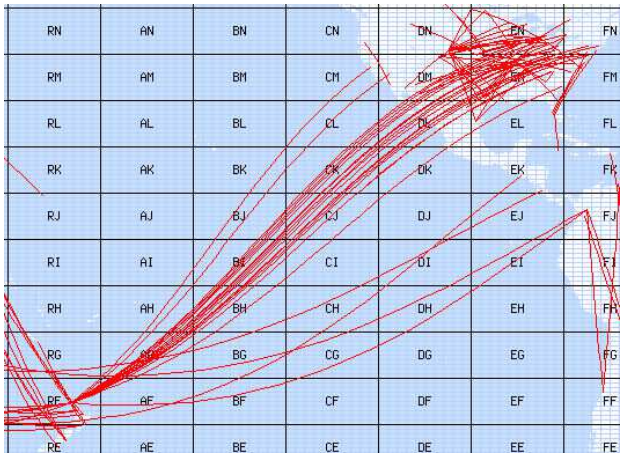
73, Chris Patterson W3CMP

P.S. 14-15 December 2014
Just got on ON4KST. Apparently I missed ZL1RS about 45 min ago. Still listening....NZ3M worked him about 22:55z.

Just worked ZL1RS at 00:12 529. DXCC 142 on six meters here/.



ON4KST 14 Dec. 2014 path from FN10 to RF64



ON4KST screen shot for 12/15/14 (UTC). It shows the contacts with ZL1RS that occurred after 7:00pm last night. Bob was in again very weakly (too weak to work here) but was worked in the Midwest and Texas.

73, Chris W3CMP

ARES/RACES

As part of the SPARC commitment to emergency communications, the SPARC repeater system is maintained as available for linking with other area repeaters.

Lancaster County RACES VHF Net is held on the first Tuesday of the month at 2030 hours local time on the 145.310 MHz repeater in Rawlinsville.

The Lancaster County primary ARES/RACES repeater is on 145.310 MHz with minus offset and 118.8 PL.

Pennsylvania RACES HF Nets are held at 3993.5 kHz LSB on all Sundays except holidays.
The statewide net is on the first Sunday of the month at 0800 hours local time.
The Central Area (including Lancaster County) net is at 08:30 local time.

EPA NBEMS Net, Tuesday, 7:30pm local EST,
3.5920mhz Mode: Olivia 8/500 1khz,
Net Mgr: WA3WSJ@arrl.net

SPARC Nets

SPARC holds nets every Tuesday at 2100 local time on 145.230 MHz minus offset and PL of 118.8. The 449.975MHz repeater is linked to the 2m repeater for the net.

Club Officers
President Harry Bauder – WA3FFK
Vice-President Kevin Lampo – K3LLC
Secretary - Dave Sarraf. – N3NDJ
Treasurer - Mike Hess– KB3YWG
Repeater Trustee - Dave Payne - N3LOM

Nearby Nets of Local Interest

If you need information on access tones etc, the referenced web sites below will usually provide the information needed. For more information, see http://arcc-inc.org/arc-fdbas.html

Monday Ephrata Area Repeater Society Net 9:00 PM on 145.450MHz.

Monday Keystone VHF Club
Combined Club & ARES/RACES Net 8:30PM on 146.970MHz.

Monday South Mountain Radio Amateurs
SMRA Club Net 9:00PM on 145.430MHz

SSB net 9:00PM on 146.210MHz. May be slightly delayed by SMRA club net.

Tuesday Digital Net 8:00 PM on the York 146.970MHz Repeater -- This is a busy digital data training net for beginners and advanced users. The primary mode used is MT63-2k. Other experimental modes are also used.

Morse Code Net Tuesday, 2000 local time (8:00p). SMRA repeater 145.430- (67.0 Hz) with alternate frequency of 146.460+ (1,000 kHz offset, tone 67.0 Hz)

Wednesday Red Rose Repeater Association Net 8:30 PM on 147.015MHz. This is an experiment to see if net attendance improves by starting a half-hour earlier.

Wednesday QCWA Net 9:00PM on 146.97MHz.

Thursday Lancaster Radio Transmitting Society Net 9:00 PM on 145.390MHz

Friday Lebanon County Digital Roundup Net 8:PM on the EARS 145.450MHz (tone 100.0Hz) repeater.

I cover all types of digital/data modes, training on computer/radio interfacing and message handling.

The primary focus is with Fldigi and Flmsg and lots of SSTV, using MMSSTV. The nets are always very informal and have sometimes lasted for 2 or more hours to cover all the evening's interest.

73,
Bob Sanborn/AB3GF

Sunday Info Net
On the N3TUQ 900MHz repeater: 8:30PM
Output: 927.5875MHz Input: 902.5875MHz (-25MHz) PL 114.8Hz.

The N3TUQ 900MHz repeater is located on the LVSRA tower on Cornwall Mountain.

Net control: Bob Howard, KB3QAQ

For more information visit
http://www.n3tuq.com/repeater.aspx

PACKRAT MONDAY NIGHT NETS
Visit the Mt Airy VHF Radio Club at:
http://packratvhf.com/airtimes.htm for the latest information on VHF/UHF nets.

NTS Eastern Area Phone net

3.917 at 4:00 PM daily for traffic going to EPA, MDC, WPA and Maryland. We have a callup, pass any traffic, after that a round of comments. Traffic manager is WA3QPX. Net could use more checkins from EPA as we normally only get one checkin from EPA and sometimes none. This is where the Fone traffic for EPA net normally comes from. Any questions I will be on 3.917 at 4:00 PM.
73 , Paul, WA3QPX

Two EPA Nets Now Accessible via Echolink
Posted By: egroups_n3sw egroups_n3sw
Mon Aug 27, 2012 11:40 pm
<>The EPA AA3RG and Echolink Traffic Net (EAETN) has been accessible since its inception via Echolink at node AA3RG-R (#149493). See the group Calendar for more information. [*Thursday 8:00PM*]
<>Now the Capital Area Traffic Net (CATN) is also accessible via Echolink at node N3TWT-R (#743026). See the group Calendar for more information. All (*licensed hams*) are welcome to join in on these nets.
73 -Scott N3SW EPA STM-

<>AA3C note: To visit our group on the web, go to NTS-EPA Group web site:
http://groups.yahoo.com/group/nts-epa/
Both nets will utilize the 146.640(tx-) MHz.
Transmit access tone: 82.5 Hz.
AA3RG Repeater. **http://www.aa3rg.org/**

QRZ News Publication

QRZ News is published monthly. The deadline for submission of items for publication is 11 days before the regular membership meeting on the fourth Tuesday of each month. If material is not copy and paste ready for publication, more lead time is required.

We operate on an exchange basis with other not for profit publications. Articles printed in QRZ News may be reprinted in a not for profit publication provided proper credit is given.

QRZ News is archived at
http://www.k3ir.org/

Amateur Satellites Made Easy

Well, here it is Thanksgiving week, the threat of a significant snow fall, and I can't wait for summer! Why? Well, I recently got an addiction, Amateur radio satellites. If you have never thought about that aspect of ham radio I am hoping I can spark some interest.

In October of this year I was put on layoff. Not much fun especially in today's economy. Jobs are not that plentiful and neither is the pay. Less I digress, needing something to fill my time, I began looking at building a direction finding antenna for fox hunting. After some research I decided to try to build a tape measure antenna. Something cheap, easy, and plenty of gain.

I assembled my parts, built the antenna, and was ready to go fox hunting. Further research seemed to indicate this antenna could also be used for satellite communications. It boasts a 7.3 dbd. Gain. Off to the AMSAT web site! This site contains all kinds of information on satellites. Continued investigation led me to Saudi Sat SO 50.

SO 50 was launched December 20, 2002 from Baikonur Cosmodrome, located in the desert steppe of Kazakhstan, about 200 kilometres (124 mi) east of the Aral Sea. It is one of the only existing FM only satellite transmitters. It transmits (downlink) on 436.800 and receives (uplink) on 145.850 with a PL tone of 67 hz. The power level is a whopping 250 mw.

After reading some other articles I decided it was time to go outside and give this thing a try. Out I go armed with my $120.00 Wouxun, $10.00 worth of pvc pipe and tape measure antenna, and a compass. I took the compass and

figured out where this satellite should "appear" and positioned myself. I prepared to receive the transmission by turning off the squelch. This is important because without doing so would make it difficult at best to "spot" the bird.

I also had preloaded the necessary frequencies for the whole length of the pass. You see, there is a very important phenomenon in communicating with the birds. It is called doppler effect. When you first start to track a satellite, you must start about 15 KHz higher than the actual frequency. As the bird travels through its pass, you must begin switching down every so often in order to compensate for the doppler effect. I usually start at 436.815 and finish at 436.785. Crazy as that seems, the transmit frequency does not need to be shifted. So I load my radio with six channels each having the 145.850 transmit and each having a 5kc shift in the receive side.

Shh! I think I hear it. Yes! NX9B EM55. KB3ZGF FN10! I did it! I did it! Oh wow! What a rush! I just made my first contact to a ham in Tennesee NX9B, Jeff Lamb. Oh man how cool is this? My first contact October 31, 2014. What was even neater? The next day Jim (KB3ZGE) and I were at the LRTS club site showing one of the guys up there my new found interest when Jim made contact with Jeff. To put frosting on the cake, I received a real nice email from Jeff. We were about his 6th father and son contact on the birds.

Contesting isn't for everyone. And I must admit, this is somewhat like contesting but you only have about ten to fifteen minutes to reach as many contacts as you can. Believe me, every time and every day of the week the SAT traffic is hopping. I don't always make contacts, sometimes I just listen. It is the shear excitement of realizing you are using a repeater running 250 mw and yourself at 5 watts that at points in time during contacts this repeater could be as much as 1500 miles away!

Not all satellites are created equal. As I mentioned SO 50 uses FM up and down, FO 29 runs 2 meter ssb and cw up and 440 ssb and cw down. AO 7 launched in 1974 had a battery failure in 1981. In 2002 the beacon was heard again and in 2006 it started operating off of its solar panels believed to be caused by a short in a battery. This bird uplinks on 2 meter and 440 ssb and downlinks on 10 meter and 2 meter ssb respectfully.

As you can see, with Baofeng radios priced around $40.00, and parts for an antenna at around $10.00, It costs very little to explore another aspect of amateur radio. Only five weeks into it and I have made seventeen contacts. Arizona to New York, Massachusetts to Florida, even from Lititz to Landisville (yeah I did one of those! Rick Walter WB3CSY who has made over 2700 contacts). They even have special event stations. I worked W1AW/4 in Alabama and W7O in Maryland to commemorate the 40th aniversery of AO7 launch.

If you're interested in learning more visit www.amsat.org. For a real nice layout for building a tape measure antenna visit: http://nt1k.com/blog/wp-content/uploads/2012/11/3L-Tape-Measure-Yagi-Assy.pdf . If you have any questions or need any information or help getting started feel free to contact me also. Maybe this spring and/or field day we can do a demonstration.

73

Tom, KB3ZGF

HAMS Must Save Morse Code

By James L. Ibaugh, AA3C, ARRL T.S., R.I.

Information Via::
http://www.navcen.uscg.gov/?pageName=maritimeTelecomms

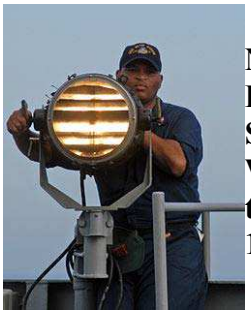
Quote from: http://www.navcen.uscg.gov/
"Morse wireless telegraphy, used by ships for distress and safety communications since the beginning of the 20th century, was discontinued by the USCG in 1995, and ceased worldwide on February 1, 1999. Many people owe their lives to this system." Shore based Morse (CW) wireless telegraphy stations were shut down or converted to digital and/or SSB voice communications on or soon after February 1, 1999.

AVATION telegraphy: Pilots and air traffic controllers usually need only a small cursory understanding. Aeronautical navigational aids, such as VORs and NDBs, constantly identify in Morse code. Compared to voice, Morse code is less sensitive to poor signal conditions, yet still comprehensible to humans without a decoding device. For efficiency, the length of each character in Morse is approximately inversely proportional to its frequency of occurrence in English. Thus, the most common letter in English, the letter "E," has the shortest code, a single dot. Morse is therefore a useful alternative to synthesized speech for sending automated data to skilled listeners on voice channels.

Effective on February 23, 2007 the FCC eliminated the Morse code proficiency requirements from all amateur radio licenses. Morse code frequency allocations were left in effect on the Amateur bands. Morse enthusiasts, of all classes may use Morse code on all frequencies assigned to their class of license.

What Is Left Of Morse Telegraphy?

Given the prevalence of night vision equipment in today's armed forces, signaling at night is usually done with lights that operate in the



U.S. Navy Blinker Lightwave Signalman, WW1, WW2 to about 1990's.

InfraRed (IR) spectrum making them less likely to be detected. All modern forces have followed suit due to technological advances in digital communications. High power Infared LED's or Laser Diodes, ~100 watt Laser Diode Arrays were and are commercially available. Internet voice encryption is very easily incorporated in Infared Communication Systems used in the military field. Advantage, no line wires for the enemy to tap for info leaks.

[AA3C note] During the 1980's I was transferred to RCA's Laser Engineering Lab and participated in the development (testing, analyzing and qualifying) of 5 watt laser diodes for array use in IR signaling systems. Their wavelength was 905 nanometers. Here in the 21st century technology evolved into digitized and encrypted laser signals. No need for Morse telegraphy anymore. http://www.1728.org/freqwave.htm Free! Wave-Freq calculator works at all frequencies or wavelengths.

Hams Can Save Morse Code Telegraphy

Would You Like To Earn the ARRL Certification In Morse Telegraphy?
OPEN URL: http://www.arrl.org/code-proficiency-certificate 8.5"X11"
Copy one of W1AW's qualifying runs and submit one minute of solid copy along with your $10 fee for a certificate to: W1AW Qualifying Run, 225 Main Street.

Newington, CT USA 06111.

Your submission will be checked directly against the official W1AW text and if you pass you will get your initial Code Proficiency certificate. From then on, $7.50 endorsement stickers are issued for speeds up to 40 WPM. The W1AW Code Proficiency Program is open to both hams and non-hams alike!
<> Click here> http://www.arrl.org/w1aw-operating-schedule to find W1AW's Certificate qualifying runs and complete operating schedule. Lowest speed is 10 WPM.
Highest speed is 40 WPM. Speeds: 15, 20, 25, 30 and 35 WPM.

W1AW on EchoLink :
EchoLink. Audio from W1AW's CW code practices and CW/digital/phone bulletins is available using EchoLink via the W1AW Conference Server "W1AWBDCT". EchoLink Software FREE from:

http://www.echolink.org/

Current users of EchoLink Network.
http://www.echolink.org/logins.jsp

Learning_methods:
http://en.wikipedia.org/wiki/Morse_code#Learning_methods
People learning Morse code using the Farnsworth method are taught to send and receive letters and other symbols at their full target speed, that is with normal relative timing of the dots, dashes and spaces within each symbol for that speed. The Farnsworth method is named for Donald R. "Russ" Farnsworth, W6TTB. However, initially greatly exaggerated spaces between symbols and words are used, to give "thinking time" to make the sound "shape" of the letters and symbols easier to learn. The spacing can then be reduced with practice and familiarity. The overall speed is increased in step with correct code copy and reduced letter spacing.

George, W3FEY offers important insight about the Farnsworth learning method.

"It is very important to learn the rhythm of properly spaced code before attempting to send it yourself. If you don't know the rhythm of code, you will be less copiable and lose contacts."

http://www.k7qo.net/

K7QO Code Course Version 3.0 - 241MB

Here is a free copy of K7QO's code course in ZIP format, thus it can be downloaded and unzipped on any operating system known to man. The file is large, but if you do NETFLIX and download other large files, so this should not be a problem. Download Ver 3.0: http://www.k7qo.net/k7qo-code-course-3.0.zip

K7QO Code Course answers directory.
http://www.k7qo.net/answers.zip
<>[CW] FISTS North America Home Page has the complete K7QO Code Course on CD disks: http://fistsna.org/index.html
K7QO's Code Course Manual in PDF, FREE
http://www.kkn.net/~k7qo/manual.pdf

W1AW Code Practice in MP3
W1AW Code Practice in MP3 format Files
5 WPM Code Practice in MP3 format
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[30 WPM Code Practice in MP3 format]
[35 WPM Code Practice in MP3 format]
[40 WPM Code Practice in MP3 format]

This is the MP3 Player I use for code.
FREE Audio & Video Player Lite MP3&4+
FREE Down Load Media Player Lite
<><><><><><><><><><><>

Just Learn Morse Code is designed to make it easy to learn Morse code, as well as improve the skills of those who already know the code. Visit this URL for more info on <>Koch&Farnsworth techniques.
http://www.justlearnmorsecode.com/
The basic methods used to achieve this are Koch's method and Farnsworth timing.

Download file:: "JustLearnMorseCode.msi" AA3C--This is the newest version I could find.

<><><><><><><><><><><><><><><><><><>

"Go With the Flow" By Nancy Kott WZ8C
"Morse code. These two words conjure up more emotions than any other phrase in Amateur Radio. ..." That quote hits the hart of the emotional edge of telegraphy. I hope you will download WZ8C's FREE PDF article.-- AA3C's note.
DownLoad:"GoWiththeFlow"byN.KottWZ8C

James L. Ibaugh, AA3C, ARRL T.S., R.I.

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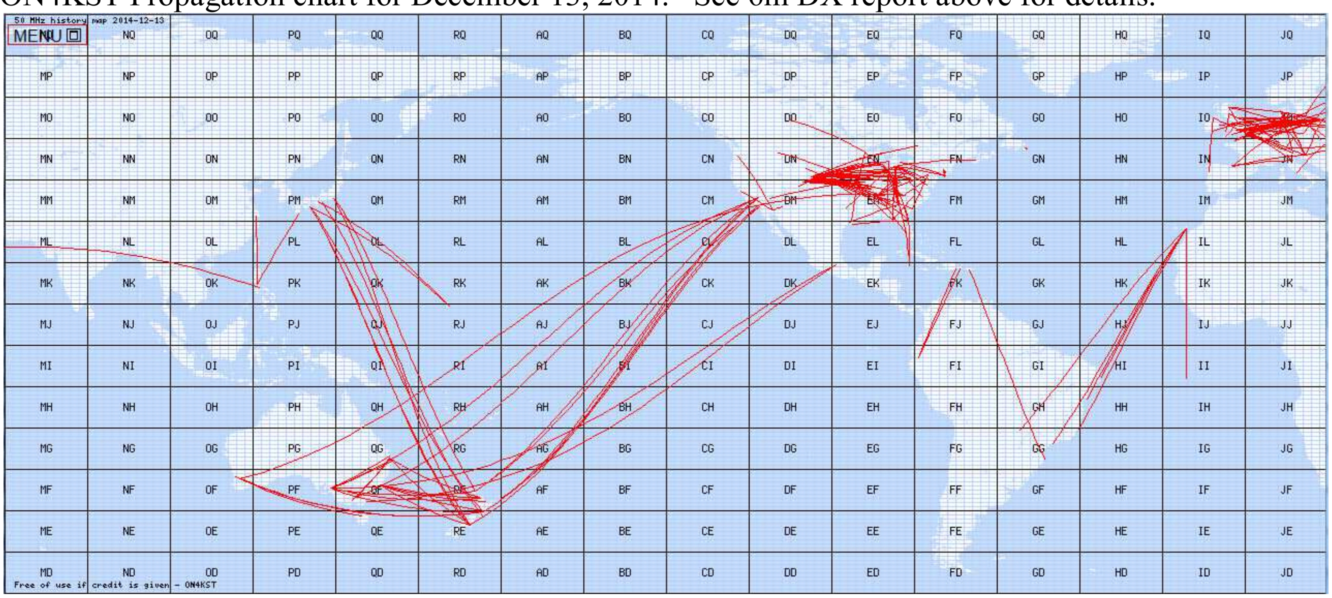
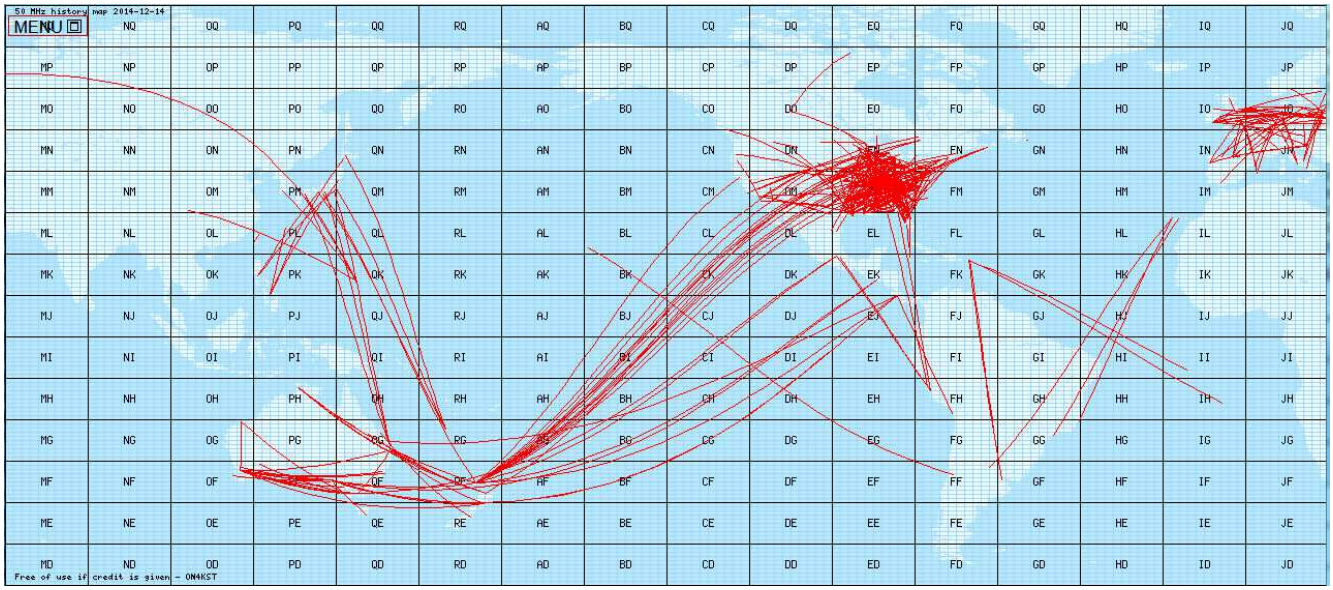
ON4KST Propagation chart for December 13, 2014. See 6m DX report above for details.



ON4KST Propagation chart for December 14, 2014.



Pennsylvania Amateur Radio Conference (PARC)

The 2014 conference, an event which had its inception during a South Mountain Radio Amateurs (SMRA) Club Net, (with discussions by KB3VAX and W3HMS on a variety of topics), and finished on a high note with smiles and positive comments by the many hams who attended the October 4th conference.
The essential focus was to provide presentations at the level of the Microwave Up-Date (MUD), Packrats and the Central States, and Southeast society annual conferences.

SMRA of Carlisle, PA, hosted the conference, which was designed to bring expositions of new technology in Amateur Radio to hams in central PA and anyone interested in the topics. The conference was hosted just north of Carlisle at the Whispering Pines Banquet Hall. The schedule, from noon to 4 PM, was deliberately chosen to make attendance possible for many hams in the region without the expense of lodging.

Don Evans, KB3VAX, SMRA Club President welcomed the attenders and John Jaminet, W3HMS, served as the Master of Ceremonies. The line-up of speakers included practical discussions on building high quality VHF and UHF antennas, by Ray Golley, N3RG. Ray brought many fine examples of "homebrew" antennas. His

interests include CW, DX, and contesting on HF bands and VHF, UHF, MW (50 MHz—10 GHz) weak -signal contesting, and 2 meter EME. His motivation to build antennas began because of deed restrictions and limitations of amateur radio antennas. Ray's presentation inspired much discussion and interest and left many of us with the confidence that we can build high quality antennas ourselves.

Next on the agenda, Phil Theis, K3TUF, gave a live-demo of the latest Flex Radio, the Model 6700 transceiver, which is a true software defined (SDR) transceiver. Phil, a native of Ephrata, designs large-scale PV systems. An Amateur Extra license holder for over 50 years, he pioneered the use of repeaters in the Philadelphia area in the 1960s. His station spans the radio spectrum from 1.8 MHz through 47 GHz. He is active in VHF/UHF contesting and he regularly places in the top ten nationwide from his location in Ephrata. Phil is also the president of the Packrats, prestigious VHF society which is a top-level contesting club.

Next, Richard (Dick) Goodman, WA3USG, gave a very energetic discussion of "working the world on the low- power" using WSJT-X data mode. Dick has been licensed since 1973 and, being fully retired, enjoys weak-signal digital modes, building equipment and portable ops. Both he and his wife, Sandy, N3ECF, are very active in public service communication and enjoy a very active lifestyle. Dick explain some of the mysteries of using JT65 X and showed some very interesting screen shots of actual contacts. Dick's enthusiasm is contagious and thus a motivation to all.

Paul Sokoloff, WA3GFZ, spoke about the automating of his HF/VHF Station for logging and control of the radios by computer. Paul licensed since age 13, works for WCAU-TV as a broadcast engineer. He recently erected a 110-foot tower located more than 250 feet from his house with all the control equipment in a shed at its base. He devised a control system for remote transverter switching. Paul was able to show how he monitors this shed with CCTV. His talk was motivating and his presentation was fascinating.

Concluding the excellent presentations was Herb Crumlich, K2LNS. He provided a photo visit and detailed discussion about an outstanding contest station. Herb has been an active ham for over 50 years and is the Chief Operator of the contest station, WA2FGK. This is a joint project with his life-long friend Andy Furlong, WA2FGK. They work all bands from 6 meters through 10 GHz, as well as the HF bands. They also work EME on 2 meters, 222 MHz, 432 MHz, and 1296 MHz. In a very formidable and detailed way, Herb laid out the station, the antennas, and the radios that are used to make this station so successful. For more information about his station, Google

"K2LNS". We note that 4 of the 5 presenters are members of Packrats as was the MC..... BRAVO Packrats!!!!!

Finally, we had a panel discussion where the presenters fielded a variety of questions.

Presenting such an event as this is a formidable task, as conference organizers have long observed. It is one not to be taken lightly, lest the "movers and shakers" be moved from saying "Nuts!" to repeating, "HI!!"

A review of the written feedback showed the attenders were not only pleased with the presentations, but offered many topic suggestions for the next conference. The venue, Whispering Pines, proved to be excellent, as noted by the attenders. Thus, we plan to hold the event at two -year intervals either in the spring or in the fall at the same location.

73 from Don, KB3VAX, Robin, KC3CEK, and John, W3HMS.