



SARA Newsletter

May 2005

Shreveport Amateur Radio Association

Meeting:

First Thursday of each month at 6:30 P.M. in the Bossier Main Library History Center

Local Amateur Information

Available at:

www.qsl.net/nw1arn/

or

www.K5SAR.com

SARA Repeaters:

145.050 - K5SAR

DX Packet Cluster

145.110 - N5FJ

146.700 - K5KDO

146.820 - K5SL

440.900 - N5FJ

SARA

PO Box 37632

Shreveport, LA

71133-7632

2005 Club Officers

President – [Richard Lee, N5PFZ](#)

Vice President – [Glenn Pettiet, K5TGP](#)

Treasurer – [Randy Fulco, K5SL](#)

Secretary – [Ellen Dupuy, K5LND](#)

ARLB012 Resolution

Calls on FCC To Evaluate BPL Interference, Review Rules

Rep Michael Ross, WD5DVR, of Arkansas, has introduced a resolution in the US House of Representatives calling on the FCC to "conduct a full and complete analysis" of radio interference from broadband over power line (BPL). The resolution, H. Res 230, says the Commission should comprehensively evaluate BPL's interference potential incorporating "extensive public review and comment," and--in light of that analysis--to "reconsider and review" its new BPL rules, adopted last October. If approved by the full House, the non-binding resolution, introduced April 21, would express the requests as "the sense of the House of Representatives."

The resolution's prime focus is on BPL's potential to disrupt critical public safety radiocommunication. It cites National Telecommunications and Information Administration (NTIA) studies that "have determined that broadband over power line creates a 'high risk' of radio wave interference, and that harmful interference to public safety mobile radio receivers can be expected at distances of 75 meters from the power line where broadband over power line is in operation, and at distances of up to 460 meters from fixed stations, such as VHF police or fire dispatch communications facilities."

The resolution notes that the same NTIA study determined that BPL interference to aeronautical and airline travel communications "could be expected at distances up to 40 kilometers from the center of the broadband over power line system, and that interference to outer marker beacons for airline instrument landing systems could be expected at great distances as well."

Many public safety agencies and support services, including emergency medical services, fire, and law enforcement, utilize Low-Band VHF (30-50 MHz), the resolution points out. According to the resolution, at least 13 states--California, Connecticut, Florida, Illinois, Indiana, Mississippi, Missouri, Nebraska, North Carolina, South Carolina, Tennessee, West Virginia and Wyoming--use the band for state police operations. It's the primary public safety radio band in nine states.

The resolution further notes that the Association of Public Safety Communications Officials Inc (APCO), and the National Public Safety Telecommunications Council (NPSTC), have urged the FCC to withhold final action in the BPL proceeding for at least a year, pending a "conclusive determination" of BPL's potential to interfere with public safety and other licensed radio systems operating below 80 MHz.

The resolution recounts that the FCC has struggled for years to resolve widespread harmful radio interference to first responders on 800 MHz and "should not have proceeded with introduction of a technology which appears to have substantial potential to cause destructive interference to police, fire, emergency medical services, and other public safety radio systems" without first conducting a comprehensive evaluation.

A copy of HRes 230 is available on the ARRL Web site in .PDF format at, <http://www.arrl.org/tis/info/HTML/plc/filings/hres230/HRes230.pdf>.

LA Ham Plates

Matt KD5KNZ, State Government Liaison, reports that the U.S. Fifth Circuit Court of Appeals has dismissed the lawsuit against specialty plates in LA. Barring any new State Court filings, you should be able to apply for, renew, or transfer your ham plate in the near future. A copy of the decision can be found at <http://www.ca5.uscourts.gov/opinions/pub/03/03-30699-CV0.wpd.pdf>.

RFI Suppression and Icom CI-V

Eddie White, KD5YNY, ewhite20@lycos.com

In a recent club meeting there was a demonstration of a user built pc-to-radio interface. The builder, along with several of the audience members, complained of RF interference either in the interface or manifesting in the pc when it was connected to the radio. There is an exceedingly simple and cheap solution to this problem. It is the ferrite bead.



You have seen these before. They are the little small black donuts sometimes found on wires inside of microphones. The picture above is quite enlarged, but this shows two example beads.

The use of the ferrite bead is simple – slide one or two onto any wire that connects a pc to a radio. That is, any wire that is not expected to carry RF. The wire will have to be unsoldered from the jack or pc board, or you may cut the wire and splice it back, but that's all there is to it. The beads may not stop all the interference and in some cases may not stop it at all. However, the beads do not affect the operation of the circuit and if they don't work they won't hurt anything. They may also be placed on component leads as long as they don't cause leads to bridge together (the beads will conduct dc.) Space limits a detailed theory, but simply put, the bead forms an inductor at RF frequencies and as we all know inductors impede (resist) the flow of ac signals.

There exist about six different material "formulation" of beads. The two most common are known as type 43 and type 73. In general, type 43 is broadband from 1 to 1000 MHz and type 73 is from .500 to 200 MHz. These are broad numbers and vary from manufacturer to manufacturer.

Two mail-order suppliers are Palomar Engineers (www.palomar-engineers.com/Ferrite_beads/ferrite_beads.html) and Mouser Electronics (www.mouser.com). You will need to study the spec sheet to find the bead that has an inside diameter slightly larger than the wire it will be placed on. For example, the JW Miller FB73-110 and FB43-110 are carried by Mouser, are of types 73 and 43 respectively, and have an inner diameter of 0.05" (0.05" is about the size of a wire-wrap ic socket leg) and should be good for 18 awg wire.

In the discussion about pc control of an Icom radio, I remembered a Canadian Software consultant I had dealings with a long time ago. He has published an old, but perhaps still usable, design for controlling Icom radios that support the CI-V protocol with a pc. His design is open-source as it includes both the hardware and software source code. As Dave writes exceptionally clean code, his would be an excellent example for one wanting to gain an additional understanding of the CI-V protocol. His design can be found at www.dunfield.com/downloads.htm under the filename ICOMCIV.ZIP. Be careful to read his instructions on how to view his schematics as you may have to download an additional file.

2004 ARRL Phone Sweepstakes

#	Call	Score	QSOs	Club	Ops
1	W5DDX	224,320	1,402	Bayou Contest Club	(K1DW, NN4RR, ops)
2	KG5VK	187,704	1,188		(+ KG5VKJ, K5SL, K5RV, KA5M, K5SRZ, KD5HPT, N5PFZ, KF5XV, KJ5SZ)
3	NE5LL	26,532	201	North Texas Contest Club	(+ N1CC)

Congratulations, Steve Lott (KG5VK) and Crew, second place in Area 5.

For Sale

SARA owns a copier that is excess to our needs and intends to sell it to a club member. The Xerox Workcenter XD-100 digital copier/laser printer can be set up with your PC or as a standalone and you can schedule it to produce as many as 100 copies, reduce or enlarge them, and print text and black graphics at any time. Sealed bids should be sent to SARA, P.O. Box 37632, Shreveport, LA 71133-7632 or provided to Randy Fulco at the May 5th meeting. All bids must be received prior to May 14th. The sealed bids will be opened by two or more officers and the winning bidder will be notified by phone and/or email immediately as well as during the May 18th SARA 2-Meter Net.



EchoLink – A Year and Half How is it Doing?

Randy Fulco K5SL

Well, It has been almost a year and half since you first heard and read about Echo-Link and K5BMO/L. It has been a 24-7 connects to 82 now since November of 2003. How has it worked? To sum it up, almost flawlessly! EchoLink has linked up the 82 repeater to Australia, India, Europe, and South America to name a few. Our Australian friends come up at will, as hams that have "found us on" and left the area. Daily I hear calls from people who have moved away from the Ark-La-Tex and discover EchoLink, and quickly find K5BMO/L -Bossier City. It has been a nice addition to the 82 repeater. I worried it may tie up the repeater for local users, but just hasn't been much of a problem to date. Technically, It has performed better than expected in reliability. How many times have you seen EchoLink down since it came up in Nov 2003-about none? Other than some conferences into the system which the other operators didn't disconnect-K5BMO/L has had very few problems.

On the technical side, a few additions were made. A timer circuit was added on the 82 repeater side. It cut down unnecessary transmissions from the link transceiver to the Bossier Marshall's Office. This prevented premature wearing out of the transmitter. The 12v supply powering the link transceiver at Schumpert developed hum, and was replaced with a nice 10a switching unit courtesy of kc5.

Clint has made a few audio adjustments, and experimented with audio pickup points from the Bossier Marshall's office side to Schumpert. It improved the mid range audio considerably.

The computer, T1 connection and interface at the Bossier Marshall's Office have worked uninterrupted for almost 15 months. So far, the EchoLink to 82 project has been a big success.

It continues to give hams world-wide a link back to the Shreveport-Bossier area.

Thanks for W5E

From: SARA (Maj Rick Westerfield)

To: 8th Airforce; Buck Rigg 8AF Museum; 2nd Bomb Wing; 917th Wing

Subject: W5E - Amateur Radio Special Event Station

Thank you very much for the support this past weekend with the Shreveport Amateur Radio Association W5E Special Event Station commemorating the 60th anniversary of the last WW II Eighth Air Force heavy bomber mission. We made roughly 500 contacts this weekend and approximately 100 of those were with the vintage WW II B-17 radios. Being able to talk to some of the old timers that visited us there at the museum was a treat for all of the club members and the old guys seemed delighted that these old radios could still be made to function over sixty years later. And the people on the other ends of our contacts were equally impressed to hear that old equipment on the air again. I think we all still find it amazing that we can talk that far away with as little as fifteen watts using that old gear. Even though we know how the equipment works, it still boggles our minds to use such a small amount of power.

The club had a good time and we hope that you will consider letting us do it again next year or on some other occasion. As soon as we get our printing order filled with our event posters and cards we will certainly bring you a few for your use. If there is anything else we can do for you, please do not hesitate to call me and we look forward to next year.

V/R

Rick Westerfield - KH2DF

Shreveport Amateur Radio Association

Events to Watch

"Enigma machine" special event, reactivation set:

As a tribute to the work of England's voluntary interceptors (VIs) during World War II, the Scarborough Special Events Group (SSEG) will operate special event station GB2HQ from GCHQ--Government Communications Headquarters--in Scarborough. VIs intercepted encrypted Enigma messages transmitted in Morse code; these were passed to code breakers at Bletchley Park who were attempting to crack the German Enigma code. The GB2HQ special event will take place over the May 7-8 weekend, with activity on SSB, PSK and CW (around 3515 or 7015 kHz). A souvenir QSL card showing an Enigma cipher machine and an HRO receiver will commemorate the occasion. GCHQ has provided a working Enigma machine for use by the SSEG, and Ofcom--the UK telecommunication regulator--has authorized transmission of an enciphered Enigma message in Morse code on the amateur bands for this event only. The Enigma message will be transmitted Saturday, May 7, 1100 UTC (repeated at 1300 and 1900 UTC), at a speed of 15 WPM. Listeners are invited to submit a copy of the Enigma message, and certificates are available for those achieving 100-percent copy. Entries and QSLs go to G0000, Scarborough Special Events Group, 9 Green Island, Irton, Scarborough YO12 4RN UK. Further details are on the SSEG Web site <<http://www.sseg.co.uk/>>.

CQ announces annual "DX Marathon":

CQ magazine has announced the revival of its long-dormant CQ DX Marathon, which last ran in 1948. The new CQ DX Marathon will essentially be a year-long DX contest, with stations competing to contact as many different countries ("entities") and CQ Zones of the World as possible over a full year, then starting again at zero at the beginning of the next year. The first running of the event will be in 2006. The new CQ DX Marathon is aimed at reinvigorating DXing. CQ outlined the program April 16 at the International DX Convention in Visalia, California. Scoring will consist of the total number of DXCC entities and CQ zones contacted over the course of a year. There will be no multipliers, and each country/entity and zone counts only once. Rules for the new CQ DX Marathon will be on the CQ Web site <<http://www.cq-amateur-radio.com/>> and in the May issue of CQ magazine.

May Meeting - Satellites

Are there REALLY amateur satellites?

You bet there are! And not just one or two. Over 70 communication satellites, or "OSCARs" (for Orbiting Satellite Carrying Amateur Radio) have been built by Amateurs around the world and launched successfully into orbit by various space agencies. Building a satellite is not for the technological neophyte, however. Nor is it an individual effort. Amateurs work together through organizations such as AMSAT-NA, the North American Amateur SATellite organization -- a non-profit corporation founded and run by Hams for the purpose of building satellites and arranging for them to "hitch a ride" on government and commercial rockets that happen to have a little extra room. Similar AMSAT organizations exist in many countries around the world, and they work together cooperatively to get the "birds" built and launched.

There are a number of different types of satellites currently in orbit, built by different countries and organizations, and intended for different purposes. Here are some that I am currently equipped to work with:

Shuttle, MIR and ISS

Amateur Radio was a key part of daily life aboard the MIR space station, and an extensive Amateur Radio installation is now aboard the International Space Station. This station carries out Amateur Radio's mandate to serve the public through education by allowing the cosmonauts and astronauts to talk directly with students in schools about the work they are doing. In addition, the station functions in automatic mode for digital computer-to-computer contacts. I'm also proud to have a verification card for a contact I made with the Amateur Radio station that flew aboard space shuttle mission STS-59 in 1994.
