

**Late Arrivals:**

Congratulations to Rob Hutchinson, on the passing of elements 1A and 2. He received the call KI4ODT

**Minutes of March 1, 2006**

The Club President, Mike Brannock, KG4IES called the March meeting to order at 7:10 p.m. The minutes of the last meeting were reviewed. A motion to accept the minutes made by Steve McFadden, KA4TJD, was seconded by Todd Rose, KE4YAH. The motion carried.

**Committee Reports:**

**Program:** Paul Harrington, KB4ENQ offered a presentation on the design and development of a CTCSS synthesizer to be conducted at the April meeting.

**Repeater:** Steve McFadden, KA4TJD has researched insurance for the Club radio equipment through the ARRL. He indicated that they charge \$1.50 per \$100.00 in replacement cost, with a minimum premium of \$20.00. It was estimated that the Club would need between \$6000 and \$10,000 to replace all of the equipment at the repeater site with new equipment. The resulting premium would be \$90.00 to \$150.00 per year. Todd Rose, KE4YAH seconded a motion made by Jerry Mueller, KC4WZO, that Steve continue with acquisition of insurance.

**Field Day:** Paul Harrington, KB4ENQ, indicated that the 2006 Field Day rules were not yet available. Additional discussion revolved around coordination of placing the antenna and EM trailers at the Field Day site.

**Net Report:** The net was called as scheduled throughout the month of February, and participation seems to be increasing. A suggestion was made that net reminders be sent out via the maillist address. The Fayette Thursday 9:00 net has been moved to Wednesday evening, same time and frequency.

3/2/2006	3/9/2006	3/16/2005	3/23/2006	3/30/2006
KB4ENQ	KB4ENQ	KB4ENQ	KB4ENQ	KB4ENQ
KF4YRK	KF4YRK	KF4YRK	KI4ODT	KI4ODT
KD4GNX	KF4LRK	KF4LRK	KD4GNX	KF4YRK
KC4WZO	KC4WZO	KE4GNX	KF4LRK	KD4GNX
KE4GNX	KE4GNX	KG4TND	KE4GNX	KF4LRK
KG4IES	KE4AIE	KE4AIE	KG4TND	KE4GNX
KE4AIE	WA4PCS		KE4AIE	KA4TJD
KI4LSG	KG4LXR			KE4LZP
K4TG				KE4AIE
WA4PCS	SHACK			KI4LSG
	VISITOR			
	FUTURE			TRAFFIC
	KI4ODT			HANDLED

**Newsletter:** The membership is invited to contribute articles, ideas and requests for additional features. It was suggested that the maillist address be added to the notes on the member data page.

**Adopt-A-Highway:** The next Adopt-a-Highway event is scheduled for March 25<sup>th</sup> with a makeup date of April 1<sup>st</sup>. Meet at McDonalds at 8:00 a.m. for breakfast.

**Fund Raising:** Todd Rose, KE4YAH indicated that there was no news on fund raising. Todd indicated that the county fair would be held June 17 through 24, and expected that the Club would be asked to help with ticket sales. The membership indicated that the best day would be Tuesday, June 20<sup>th</sup>. Currently volunteers include Paul 3, Mike, Jerry, Steve, Todd and Rick.

**Emergency:** There will be a CERT tabletop exercise on March 16, at 6:00p.m.

The weather spotting class will be held March 8<sup>th</sup> at the Woodford County Courthouse. The class, starting at 7:00 p.m. will be held in the Community Room in the Courthouse basement. Registration starts at 6:30 p.m.

The Woodford County CERT organization will be recognized in the state Senate Session, March 9<sup>th</sup>. Anyone wishing to attend should call Sarah at 873-4541. The recognition will come during the afternoon (2:00 to 4:00) session in the Senate Chamber of the Capital building in Frankfort.

It has been determined that Hams interested in emergency service will only be required to complete FEMA courses ICS-100 and ICS-700. Earlier discussion revolved around additional courses being required.

**Web Site:** The mail list [maillist@ky4wc.org](mailto:maillist@ky4wc.org) has been setup.

#### **Old Business:**

Drew Chandler, presented sample WCARC badges. Discussion revolved around selecting a sample, and suggesting some changes. The badge design was finalized with a motion made by Paul IV, KF4YRK and seconded by Todd Rose, KE4YAH. The motion carried. Badges will be made for active members. Pictures were taken after the meeting.

#### **New Business:**

The Relay for Life kickoff meeting will be held March 10<sup>th</sup> at the Community Bank, third floor, 6:30 to 8:30 p.m. E-mail Jerry if you plan to attend.

A motion from Jerry, KC4WZO, seconded by Mike, KG4IES, closed the meeting. The motion carried, at 8:38 p.m.

#### **Attendance:**

Mike Brannock	KG4IES	Todd Rose	KE4YAH
Rick Stanback	N4WCQ	Steve McFadden	KA4TJD
Paul Harrington III	KB4ENQ	Drew Chandler	EM
Paul Harrington IV	KF4YRK	Jerry Mueller	KC4WZO
Jim Hughes	K4ZPL		

#### **Upcoming Exams:**

09-Apr-2006  
Sponsor: THOROUGHbred DX GROUP  
Time: 1:30 PM (Walk-ins allowed)  
Contact: MARGUERITTE E WILLIAMS  
(859)245-2140  
Email: KE4MAJ@ARRL.NET  
VEC: Western Carolinas ARS VEC  
Location: RED CROSS BLDG - CLASSROOM B  
1450 NEWTOWN PIKE  
AT GRIFFITH GATE BLVD  
HTTP://WWW.LEXKYWCARS.ORG/  
LEXINGTON, KY 40511

Time: 7:00 PM (Walk-ins allowed)  
Contact: NORMAN ARD  
(606)679-2442  
VEC: ARRL/VEC  
Location: SOMERSET COMM COLLEGE-NORTH  
CAMPUS  
MEECE HALL - ROOM 6  
NEAR SOMERSET AIRPORT  
SOMERSET, KY 42501

10-Apr-2006  
Sponsor: NORTHERN KENTUCKY ARC  
Time: 6:00 PM (No walk-ins)  
Contact: LYLE H HAMILTON  
(513)315-4032  
Email: AB8SH@ARRL.NET  
VEC: ARRL/VEC  
Location: TURKEYFOOT MIDDLE SCHOOL  
3230 TURKEYFOOT ROAD  
REGISTER AT LEAST 3 DAYS AHEAD  
MAY ALSO CALL 513-533-5604  
FORT MITCHELL, KY 41047

22-Apr-2006  
Sponsor: LVARC  
Time: 10:00AM (Walk-ins allowed)  
Contact: LARRY L LINKMEYER  
(812)926-2058  
Email: LARRY@GRAYAVIATION.COM  
VEC: ARRL/VEC  
Location: DEARBORN COUNTY EMO  
401 W HIGH ST  
LAWRENCEBURG, IN 47025

21-Apr-2006  
Sponsor: LAKE CUMBERLAND ARA

06-May-2006  
Sponsor: USS JURASSIC ARC & GRANT ARC  
Time: 10:00AM (Walk-ins allowed)  
Contact: CAROLYN I DONNER

(937)379-2517  
Email: N8ST@ATT.NET  
VEC: ARRL/VEC  
Location: ABCAP BUILDING  
200 S GREEN ST  
ENTER THRU SIDE DOOR  
2ND FLOOR CONFERENCE ROOM  
GEORGETOWN, OH 45121

Time: 10:00AM (Walk-ins allowed)  
Contact: FERNIE D WILLIAMS  
(859)245-2140  
Email: KE4MAI@ARRL.NET  
VEC: ARRL/VEC  
Location: RED CROSS BUILDING-CLASSROOM B  
1450 NEWTOWN PIKE  
AT GRIFFIN GATE BLVD  
HTTP://WWW.BLUEGRASSARS.ORG  
LEXINGTON, KY 40511

13-May-2006  
Sponsor: HARDIN COUNTY TESTERS  
Time: 9:00 AM (Walk-ins allowed)  
Contact: ARCHIE A MACK  
(270)351-6159  
Email: AMACK1@BBTEL.COM  
VEC: ARRL/VEC  
Location: HARDIN COUNTY PUBLIC LIBRARY  
NORTH BRANCH  
800 SOUTH LOGSDON PARKWAY  
ACROSS FROM NORTH HARDIN HS  
RADCLIFF, KY 40160

15-May-2006  
Sponsor: NORTHERN KENTUCKY ARC  
Time: 6:00 PM (No walk-ins)  
Contact: LYLE H HAMILTON  
(513)315-4032  
Email: AB8SH@ARRL.NET  
VEC: ARRL/VEC  
Location: TURKEYFOOT MIDDLE SCHOOL  
3230 TURKEYFOOT ROAD  
REGISTER AT LEAST 3 DAYS AHEAD  
MAY ALSO CALL 513-533-5604  
FORT MITCHELL, KY 41047

13-May-2006  
Sponsor: BLUEGRASS AR SOCIETY

**From the ARRL News Letter:**

==>BPL CHIP MAKER SHOWS INTERFERENCE ABATEMENT IMPROVEMENTS TO LEAGUE

A demonstration at ARRL Headquarters of DS2 BPL equipment suggests the chipset developer and manufacturer is working to minimize--if not altogether eliminate--interference from its products on amateur bands, ARRL Laboratory Manager Ed Hare, W1RFI, says. Hare met with two DS2 officials at ARRL to discuss the company's improved approach to Amateur Radio band notching techniques. Based upon his observations during a demonstration of DS2's latest generation G2 technology, Hare says he's cautiously optimistic. A spectrum analyzer check of the modem's output showed the G2 modem could attain a notch depth of up to 40 dB.

"While there's no certainty that all BPL products using this technology could achieve 40 dB of protection within notched spectrum, our tests show the capability to do so is there," Hare commented. "This may not prevent all interference problems, but a 10 to 15 dB improvement over the notching used by many BPL systems in place today would be a significant improvement."

Hare points out that DS2 chipsets are used by BPL equipment makers Ambient, Amperion, Corinex and Mitsubishi, among others. "Our work with DS2 could help manufacturers as they address interference problems in earlier-generation equipment," he said.

In its October 2005 Petition for Further Rule Making in the BPL proceeding <<http://www.arrl.org/tis/info/HTML/plc/filings/BPL-FNPRM.pdf>>, ARRL cited BPL systems using Main.net and DS2 chipsets as among those that lack fixed, permanent notches in the ham bands and "have caused numerous cases of harmful interference to stations in the Amateur Service."

Hare says he was intrigued by an earlier demonstration showing that DS2 had improved the notching capability of its latest chipset. Preliminary tests showed that although close-in notching wasn't much better than other systems', BPL noise dropped below the ambient noise level deep into the notches. Hare and DS2 agreed to work with ARRL to further investigate the notching improvements.

On March 9 DS2 Vice President of Technology and Strategic Partnerships Chano Gómez and Product Manager Eduardo Lluna, EA5ETP, brought a pair of modems using DS2's latest-generation G2 technology to ARRL Headquarters. Gómez directs DS2's US office in California. Lluna is based in Valencia, Spain. The modems were set up in the ARRL Laboratory's screen room, and checked on a spectrum analyzer in

the 20-meter band. Hare said the 40 dB notch depth across the entire band was typical of all bands measured.

The DS2 modems also were tested at Maxim Memorial Station W1AW, where they were plugged into outlets in separate parts of the building and set to transmit data. Hare listened on a number of ham bands and on adjacent spectrum. Inside the ham bands, the signal was inaudible, he said.

"Although this was encouraging as a reasonable quick-look test of DS2 modems on premise," Hare cautioned, "testing on a BPL installation using overhead power lines would present a more realistic situation from which to draw firm conclusions." Gómez offered to look into ways such tests might be arranged.

Gómez said he's happy to be working with ARRL to demonstrate that DS2's chipsets are Amateur Radio-friendly. "We have made a huge effort to ensure that the 40 dB programmable notches in our OFDM chipset provide adequate protection," he said. Lluna said several vendors already have deployed DS2-based equipment in the US, "and this gives them the mechanism to avoid interference problems completely." Feedback from the ARRL "has been invaluable" in achieving that goal, he added.

Afterwards, Hare, Gómez and Lluna discussed BPL and electromagnetic compatibility (EMC) issues and potential solutions to head off most cases of interference. "We had a solid exchange of ideas about the technical aspects of interference problems and how improved notch depth could be combined with other techniques to prevent and correct interference," Hare said. "The DS2 staff has a good grasp of the technical issues involved and believes many of them ultimately can be implemented in deployed systems."

ARRL CEO David Sumner, K1ZZ, concurred with Hare's cautious optimism. "We very much appreciate this dialogue with DS2, and we are looking forward to turning talk into action and solutions," he said.

==>ISS COMMANDER ON A ROLL, COMPLETES ANOTHER SET OF BACK-TO-BACK SCHOOL QSOS

With Expedition 12 drawing to a close in April, ISS Commander Bill McArthur, KC5ACR, has been working hard to speak via Amateur Radio with students at as many schools as possible. This week, he took time to thank the worldwide Amateur Radio community for its help in achieving several ham radio milestones from space. McArthur has been more active from NA1SS than any other astronaut or cosmonaut who's lived aboard the ISS since the first crew arrived in 2000. Among other accomplishments, he completed DXCC and WAS from space (the awards will be honorary). In addition, he holds the record for handling the most Amateur Radio on the International Space Station (ARISS) school contacts of any ISS crew member--34 as of March 23.

"I would like to express my deep gratitude to the worldwide amateur radio community for your participation in this great adventure," McArthur said. "Clearly, one of the benefits for Amateur Radio is bridging the distances between us. Through your participation, you helped realize the potential for the human exploration of space to do exactly that. Thanks to you, over the past six months, the International Space Station has been more international than ever before."

On St Patrick's Day, March 17, McArthur chatted with students at high schools in Maryland and Ohio on successive orbits. Something a bit out of the ordinary occurred during the contact with Bowie High School in Maryland, when one student asked in Russian, "How do the northern lights look from out in space?" Because all ISS crew members are bi-lingual, McArthur was able to respond in kind: "It's a beautiful sight."

Commenting for an article <[http://www.gazette.net/stories/032306/bowinew185511\\_31939.shtml](http://www.gazette.net/stories/032306/bowinew185511_31939.shtml)> about the contact that appeared in The Gazette newspaper, Bowie High School Principal John Bircckhead said, "This type of event creates all kinds of opportunities for the students." He credited coordinating teacher and Earth station operator Art Colton, KB3KAR, with doing "an excellent job" in making the contact happen. Members of the Goddard Amateur Radio Club (WA3NAN) provided and set up the equipment and antennas for the ARISS QSO.

McArthur answered 20 questions during the approximately 10-minute contact. The station for the direct VHF ARISS contact was located in the Bowie High School library. AMSAT President Rick Hambly, W2GPS, was on hand for the Bowie contact.

ARISS Mentor Jim Gass, N3CJN, said the event received coverage from TV and print media, including the Washington Post. "The kids were ecstatic, their parents were proud, and the principal, his staff and administrators were highly impressed and very pleased," he said.

On the next orbit, McArthur took 22 questions from students at Cleveland Heights High School in Ohio during a direct contact between NA8SA and NA1SS. In response to one, he indicated he doesn't put much stock in astrology and discounted any notion of a connection between astrology and space.

"That's a pretty interesting question " McArthur allowed. "Of course, astrology involves looking at the stars and the constellations and seeing if it can help predict our fates." Then, after some hesitation, he added, "I don't really pay much attention to astrology, to be quite honest with you."

McArthur told the students that the major difference between daily life on Earth and daily life in space is that his work day is longer on orbit.

"We really have a longer work day here," he responded. "Almost everything we do to some degree or another is work, so we have a little less time to 'hang around' if you will, although I'm hanging around on the ceiling right now."

The NA8SA Earth station call sign belongs to the NASA Lewis Research Center Amateur Radio Club in Cleveland, whose members helped set up for the event.

Coincidentally, both Bowie and Cleveland Heights boast current NASA astronauts among their graduates. Ricky Arnold, KE5DAU, of the astronaut class of 2004 is a Bowie alumnus, while Don Thomas, KC5FVF, attended Cleveland Heights.

ARISS <<http://www.rac.ca/ariss>> is an international educational outreach, with US participation by ARRL, AMSAT and NASA.

#### ==>LOGBOOK OF THE WORLD NOW SUPPORTS WORKED ALL STATES AWARD

Users of the ARRL's Logbook of the World (LoTW) <http://www.arrl.org/lotw/> now may apply their LoTW credits to applications for the League's Worked All States (WAS) award. Once registered and logged in, users may set up a WAS account on the Logbook Awards page, configuring the account to automatically select QSLs to use or selecting them manually via the Your QSOs page.

LoTW is a repository of logbook records submitted by users from around the world. When both participants in a contact submit matching QSO records to LoTW, the result is an electronic "QSL" that can be used for award credit.

As part of this addition, administration and maintenance of all WAS awards is now performed using an LoTW module. US Amateur Radio licensees must be ARRL members to apply for the WAS award. In addition to WAS, LoTW supports the ARRL DX Century Club (DXCC) award.

Since its inauguration in September 2005, LoTW has more than 95 million QSO records on file, with nearly 5.15 million QSL records resulting. The system boasts just over 12,000 registered users, and there are more than 18,100 certificates--each representing a particular user call sign--on file.