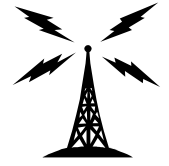


ZERO BEAT



Official Newsletter

Kingsport Amateur Radio Club/Bays Mountain Radio Club

~ **May 2008** ~

CLUB OFFICERS AND COMMITTEES

President

Mike Greer, KC4MG

BMRC Vice President

Rick Light, KG4WZG

KARC Vice President

Justin Holmes, AI4IS

BMRC Secretary Treasurer

Phil Alley, KE4FFO

KARC Secretary

Tiana Holmes, KI4OIW

KARC Treasurer

David Stevens, WB2SIN

Club License Trustee

Ronnie Byrd, AI4BT

Chaplain

Tom Jayne, KF4RLG

Field Day Captain

David Stevens, WB2SIN

Activities Manager

David Gulley, KI4AAU

Zero Beat Editor

Phyllis Maness, KG4DTX

Station Manager

Don Mullins, AE4IA

Net Manager

Paul Marcum, AC4QZ

W4TRC Webmaster

Jennifer Taylor, KI4TNT

IMPORTANT DATES

- ✓ **June 12** – KARC/BMRC Club Meeting at the Toy F. Reid Employee Center at 7:00 PM
- ✓ **June 14** – Breakfast Get-together at Lynn Garden Restaurant, 8:30 AM
- ✓ **June 19** - Scott County Amateur Radio Society Meeting, EOC Building behind the Gate City Library at 7:00 PM
- ✓ **June 28 and 29** – Field Day at Memorial Park
- ✓ **Every Sunday** – 2 Meter Net on 146.970 at 8:30 PM



Knoxville Hamfest Saturday June 14th, 2008

The Radio Amateur Club of Knoxville (RACK) is hosting its 42nd annual Knoxville Hamfest and Electronics Exposition on Saturday June 14th at Kerbela Temple in downtown Knoxville (9:00 AM to 4:00 PM)

There will be free parking and plenty of space for outside tailgating. There will be a diverse number of Inside Dealers and tailgaters offering a wide range of amateur radio equipment and electronic items.

Talk-In Frequencies: RACK Linked Repeaters on 147.300/224.500/444.575

<http://www.w4bbb.org>>Knoxville for additional Hamfest Information



Ashville Hamfest Saturday July 26th, 2008

33rd Annual Western Carolina Hamfest on Saturday July 26, 2008 (8:00 AM to 4:00 PM)

Haywood County Fairgrounds * * * Free Tailgating * * * Free Parking * * * Talk-in: 146.91, 146.76, 147.39

VE Testing - Bingo - Hourly Prizes - Beautiful Scenery Limited On-Site Camping Available - First Come Basis

GRAND PRIZE: HF Transceiver Second Prize: 2/440 Radio Pre-Registration Prize: 2 meter Handheld

Advance Tickets @ \$5.00 Each (\$6.00 at the Gate)

Covered Flea Market Tables \$10

For additional information: contact FM Thornal, Hamfest Chairman ke4kzs@arrl.net

Directions: Longitude and Latitude -82.95983, 35.53103 Take I-40 Exit 24, NC 209 (Lake Junaluska). Go south approximately 2.5 miles following signs. Hamfest will be on your left. If coming north from 19-23/74 on NC 209, go north approximately 1/2 mile. Hamfest will be on the right.

Additional information may be obtained at <http://www.wcars.org/hamfest.html>>Ashville

Upcoming Test Session

A test session is scheduled on May 31st at 10:00 AM in the Tenasi Room at Indian Path Hospital.

Additional Ham Operators Needed for Events

Carter County Amateur Radio Club will be working the Roan Groan Bike Run and the Carter County Pedalfest in June and will need additional ham operators to assist.

The Roan Groan Bike Run will be on Saturday, June 7 at 9:00 AM. Meet at the Elizabethton Chamber of Commerce on Highway 19E (near the jail) at 8:00 AM. Talk in will be 145.290 with no tone.

The Carter County Pedalfest will be on Saturday, June 14 at 10:00 AM. Meet at the Cat Island Park near the Chamber of Commerce, just off Highway 19E at 9:00 AM. Talk in will be 145.290 with no tone.



June

- 12 Don Mullins (AE4IA)
- 12 Scott Bigliardi (KE4OVR)
- 14 Tiana Holmes (KI4OIW)
- 25 Maria Hartley (KI4YYE)
- 28 Lynn Anderson (KA4LRV)
- 29 Jim Fansler (KI4DWB)

Club Meeting

The meeting was called to order by President Mike Greer, KC4MG. Prayer was led by Phil Alley, KE4FFO followed by self introduction by the members present. David Gulley, KI4AAU, made a motion to accept the minutes as printed in the Zero Beat newsletter. Earl Oaks, N4FZA, seconded.

The Treasurer Report was given by Dave Stevens, WB2SIN. All accounts are reported in good standing. A copy of the report was given to the president and to the secretary.

Jeff Pierce, WD4NMQ, gave the repeater report. He stated that there has been some noise on the repeater but he is not sure where it is coming from. Other than the noise, everything is working fine.

Phil Alley stated that the website is w4trc.tripod.com and there is a lot of good information listed. He stated that around 700 people had visited our website during the past month.

Zero Beat update was given by Phyllis Maness, KG4DTX. She would like to have information to be included in the newsletter by the 15th of each month. Please contact at kg4dtx@gmail.com to have items placed in the newsletter. Also, remember to keep your email updated to receive the Zero Beat. If email is not an option, contact Phil Alley at ke4ffo@gmail.com to let him know your mailing address to receive a copy through the mail. Printed copies will also be available at each club meeting.

Station Manager Don Mullins, AE4IA, informed the club that the 10 KW generator needs a new storage place. This generator is kept as a back up, but it is too large to be stored at the ham shack. Mike Greer offered to store at his home.

Program Manager David Gulley listed upcoming events:

May 10 – ARES Drill

May 10 – Johnson County Ham Fest

May 10 – Breakfast Get-Together

May 31 – Test Session at Indian Path Hospital Tensai Room at 10:00 AM

June 7 – Roan Groan Bike Run in Elizabethton

June 12 – KARC/BMRC Club Meeting ARES Program by David Gulley

June 14 – Carter County Pedalfest in Elizabethton

David also passed around a brochure sample that he would like to put together. He also had an idea of information that could be placed in a packet and given to new members or members renewing their club membership. These would include ham directories, by-laws, membership card and ARES info.

Jeff Pierce informed the group that he is planning a test session at the Tensai Room at Indian Path Hospital. The date will be May 31 at 10:00 AM. The fee is \$10.00 cash.

Field Day Captain Dave Stevens gave the Field Day Report. He stated that we are still planning on having Field Day at Memorial Park on Fort Henry Drive. There was some discussion about whether we could save money by not obtaining a port-a-potty. Participants would have to go to area businesses to use their facilities or another option would be to move the location to the Lifesaving Crew Building and using their rest rooms. This will be decided at the next meeting. A Food Captain is still needed. There was also a discussion on appropriate food and ways to avoid the waste of food.

Phil Alley has been checking local areas for prices of coax to avoid shipping costs. He will continue his investigation and this will be discussed at a later date.

Allen Larkin announced to the club that there will be a meeting of the West and East Sullivan County ARES members in preparation for an emergency drill. The meeting is scheduled for Thursday, May 22 at 6:00 PM at the Life Saving Crew Building. The drill is scheduled for June 7th at Holston Middle School on Airport Road across from Northeast State Technical College. Be there around 9:00 AM and bring everything you can possibly carry in an emergency situation, such as handhelds, extra batteries, etc.

The final discussion of the meeting was deciding which way the club should present the sale of the excess equipment. It was decided that the club would do a sealed bid by the last day of June. The list of items is listed in the Zero Beat (Page 4) and on the website. Interested members will be able to look over the equipment at the Eastman Recreation Shelter 8 on Sunday, June 1st from 1 PM until 3 PM.

The motion to adjourn was made by Earl Oaks and seconded by Phil Alley.

Kingsport/Bays Mountain Amateur Radio Club

Excess Equipment for Sale

Will be offered to current paid up club members first

TEN-TEC OMNI D TRANSCEIVER	\$120.00 - \$250.00
POWER SUPPLY	\$25.00 - \$50.00
DRAKE TR-4 HF TRANSCEIVER	\$150.00 - \$475.00
DRAKE POWER SUPPLY	\$25.00 - \$50.00
KENWOOD TS-820 HF TRANSCEIVER WITH BUILT IN POWER SUPPLY	\$150.00 - \$250.00
YAESU AMPLIFIER FL-2100B 1200 WATT OUTPUT	\$255.00 - \$350.00
DENTRON 3 KW ANTENNA TUNER	\$125.00 - \$200.00
JOHNSON KW MATCHBOX (TRUE CLASSIC)	\$125.00 - \$200.00
2 METER AMPLIFIER 35 WATT OUTPUT	\$35.00 - \$50.00
AEA PACKET CONTROLLER	\$65.00
KANTRONICS PACKET CONTROLLER	\$65.00 - \$90.00
TRYGON POWER SUPPLY 12 VOLT	_____

Make an offer on the items listed below:

- 1 RXICC 25 ENJE CORP
- 1 RXICC 24 ENJE CORP
- 1 VOMAX VOX
- 1 ARMY TERMINAL BOX
- 1 COMBO TRI SQUARE
- 1 FLAT FILE WITH HANDLE
- 2 ALUM CHASSIE BOXES
- 1 THOR SPEED GRINDER

Excess club equipment will be displayed on Sunday, June 1st

at the Eastman Recreation Area Shelter 8 from 1 PM until 3 PM ONLY

ATTENTION WEST AND EAST SULLIVAN COUNTY ARES MEMBERS

It is requested that all local ARES members attend the meeting scheduled at the Life Saving Crew Building located on Fort Henry Drive on May 22 at 6:00 PM. This meeting will prepare all members for the upcoming emergency drill.

Emergency drill is scheduled June 7 at Holston Middle School on Airport Road across from Northeast State Technical College at 9:00 AM. Be prepared to bring all supplies that you can carry in an emergency situation to the drill.

Appeals Court Sends BPL Rules Back to FCC

A federal appeals court has told the Federal Communications Commission it must reopen its rulemaking proceeding establishing rules for Broadband over Power Lines (BPL), and specifically that it must make the full content of five internal studies available for public review and comment and that it must explain why it chose to use a more liberal measurement technique for determining interference potential from BPL.

The U.S. Court of Appeals for the District of Columbia ruled today (April 25) in a case brought against the FCC by the American Radio Relay League (ARRL), challenging parts of the Commission's BPL decision as arbitrary and capricious and in violation of the federal Administrative Procedures Act.

The court found that the FCC had relied heavily in its decision on five internal studies but then impermissibly refused to release those studies in full for review and comment. Pages that had been deleted, or "redacted" from portions made public, according to the court, "show staff summaries of test data, scientific recommendations, and test analysis and conclusions regarding the methodology used in the studies." The ruling continued, "It would appear to be a fairly obvious proposition that studies upon which an agency relies in promulgating a rule must be made available during the rulemaking in order to afford interested persons meaningful notice and an opportunity for comment" and "It is one thing for the Commission to give notice and make available for comment the studies on which it relied in formulating the rule while explaining its non-reliance on certain parts. It is quite another thing to provide notice and an opportunity for comment on only those parts of the studies that the Commission likes best."

Accordingly, the court "remanded" the rules to the FCC with instructions to make the full texts of the studies available for comment. In addition, the court ruled that the FCC had not adequately explained why it chose to take a statistical approach to interference likelihood based on a signal decay factor of 40 dB/decade when other information was presented suggesting that a factor of 20 dB/decade might be more appropriate. The court did *not* tell the FCC that it had to adopt the tighter standard, but rather that it could not reject it out of hand without sufficient explanation.

There is no indication at this time as to when the FCC might reopen the proceedings and/or whether it will appeal the ruling to the United States Supreme Court.

The Copper Cactus Antenna By Gary (KG0ZP)

The Copper Cactus J-Pole Antenna may be built as a MonoBander, DuoBander, TriBander or QuadBander with great success. You can feed it with separate coax for each band or a single coax, however, separate coax make it much easier to tune.

There's no trick to building them, just remember the overall length is for the lowest frequency of operation. Regardless which band you are building, all are exactly the same length overall 58.09" on 2 meters. Feed the coax up the center of the pipes. Use T-Fittings at the proper distance below the top of the antenna for the desired frequency. The only problem is that the more bands you try to incorporate into the antenna, the harder it is to get the SWR flat on all bands.

Frequency	52MHz	146MHz	223.5MHz	435MHz	912MHz	1265MHz
Pipe Diameter	1"	3/4"	1/2"	1/2"	3/8"	3/8"
Stub	54.70"	19.36"	12.65"	6.46"	3.02"	2.16"
Overall Length	163.92"	58.09"	37.94"	19.39"	9.07"	6.49"
Separation	5"	2"	1-1/4"	3/4"	1/2"	1/4"
Connect at	6"	2-1/4"	1-1/2"	1"	3/4"	1/2"

For best results, build the highest band first, for example, the 435MHz antenna, If you really want it to look neat, use 3/8" copper for the vertical and 1/4" copper for the transformer section (stub). Naturally the finished product will be in the shape of a "J".

Now build the next band, for example, the 223.5MHz antenna, by adding pipe to the T-connector that is the base (mast mount) of the 435 MHz antenna. Use 1/2" for the vertical and 3/8" for the stub of this section.

Now build the 146MHz antenna, don't forget the overall length of the antenna is the lowest frequency you will be using. Use 3/4" for the vertical and 1/2" for the stub. The stub must be parallel to the vertical; however, you can point the base of each stub in any direction you like. You can point at 3 equal distant points (which makes it look like a cactus) or make them all on the same side.

Measurements on overall length and stub length are from the centerline of the separation pipe (horizontal) to the top of the antenna. The separation distance is technically from centerline to centerline, but inside measurements are fine and visually look better. Some of the measurements are less than physically possible, in this case just push the T-Fitting and elbow as close together as you can get them, no need to trim the fittings. The Connect at measurement is from the top of the horizontal member to the point of connection.

Final note: If you use 1/2" pipe for all the construction, on the 2-meter stub, add 1/4" to its length, or use pipe-caps and adjust them up or down to get the 1/4" additional length.

The antenna should be in perfect tune, SWR less than 1/2 - 1 on all bands, using separate coax for each band.

Solder all the joints before installing the coax, any pipe you have left over can be used as the mast.

To install the coax, drill a 1/4" hole in the top of the horizontal part of each T-Fitting closest to the vertical, and then tilt the drill at an angle, so that the drill bit is sorta heading down the vertical.

Until you are familiar with the construction techniques of the J-Pole. I wouldn't attempt any more than three bands the first time out. In fact, a dual-bander, using the above dimensions will

be perfect every time.

<http://www.n6mrx.com/Antenna/The%20Copper%20Cactus.htm>

-Thanks to Earl Oaks, N4FZA, for submitting

The Field Day Story

Where the spirit of “Amateur Radio Past” joins forces with the Next Generation of Innovations, Interests and Individuals!!!

ARRL Field Day is the most popular on-the-air operating event in amateur radio. On the fourth full weekend in June, tens of thousands of amateur radio operators gather for a public demonstration of our service. Field Day is part educational event, part operating event, part public relations event – and ALL about FUN!

Amateur radio is about knowledge and growth. It is a hobby and service that truly offers “something for everyone.” Amateur Radio embraces both the old and new. While CW may no longer be a testing element, it is still a strong and favorite operating mode for many. Tens of thousands of operators are embracing digital technologies, from RTTY to newer digital modes like PSK31 and Olivia. Phone operation, probably the largest segment of the hobby, also has new frontiers to be explored with digitized voice, VOIP, and IRLP. And this is why Field Day – the largest annual on-the-air operating event – is so exciting. It gives all – the old timer and the newcomer, the brass-pounder and the computer assisted operator – the chance to share and teach the broad range of modes and technologies we find in our hobby.

Field Day is truly the time in which we bring amateur radio to Main Street USA. By setting up in parking lots, malls, Emergency Operations Centers, parks and even at home, amateur operators learn skills that will allow them to better serve their communities. Setting up in these public venues gives added public relations value – their friends and neighbors can see and experience the fun and public service capability that their “ham radio” neighbors bring to the community.

Join in the fun! For more information on amateur radio and the ARRL – the national organization for Amateur Radio – visit www.arrl.org

-ARRL Field Day Web site

FIELD DAY June 28-29, 2008

Regional Club Nets			
Club/Association	Frequency	Day	Time
Bristol Amateur Radio Club	146.670	Tuesday *	9:00 PM
Carter County Amateur Radio Association	145.290	Tuesday *	8:30 PM
Johnson City Amateur Radio Association	146.790	Tuesday *	9:00 PM
Kingsport/Bays Mountain Amateur Radio Clubs	146.970	Sunday	8:30 PM
Lakeway Amateur Radio Club	147.030	Tuesday	8:30 PM
Mountain Empire Amateur Radio Society	443.000	Wednesday	8:00 PM
Smoky Mountain Amateur Radio Club	146.655	Thursday	7:00 PM

*Except meeting nights.

Regional Club Meetings			
Club/Association	Date	Time	Place
Bristol Amateur Radio Club	1 st Thursday	7:00 PM	Bristol Memorial Medical Center Azalea Meeting Room, Exit 74 on I-81, TN
Carter County Amateur Radio Association	1 st Tuesday	7:30 PM	Elizabethton Municipal Airport Terminal Building, 415 Highway 91, Elizabethton, TN
Johnson City Amateur Radio Association	3 rd Tuesday	7:00 PM	North Side Hospital Courtyard Main Classroom, 401 Princeton Road, Johnson City, TN
Kingsport/Bays Mountain Amateur Radio Clubs	2 nd Thursday	7:00 PM	Toy F. Reid Employee Center, Wilcox & Industry Drives, Kingsport, TN
Lakeway Amateur Radio Club	Last Thursday	7:00 PM	Morristown-Hamblin Library, W Main Street, downstairs Community Room, Morristown, TN
Mountain Empire Amateur Radio Society	3 rd Thursday	7:00 PM	Washington County 911 Dispatch Office, 234 Valley Drive, Abingdon, VA
Scott County Amateur Radio Society	3 rd Thursday	7:00 PM	EOC Building behind Public Library, Gate City, VA
Smoky Mountain Amateur Radio Club	4 th Monday	7:00 PM	United Steel Workers of America Hall, 339 Hall Road, Alcoa, TN

Interested in placing information in the newsletter?

Contact Phyllis Maness, KG4DTX
kg4dtx@gmail.com



This monthly newsletter is published as a service to members of the Bays Mountain Radio Club and the Kingsport Amateur Radio Club.