ZERO BEAT

June 2018

John Williams (KJ4ZFK) hosted **QRP In the Park part 2** on June 5th. John led discussions on “Lessons Learned from Previous Outings” and “Using Technology for More Successful Communication”. David Gulley (KI4AAU) spoke to us on “Better Practices for UHF/VHF Communications”. Carl Hacker (WC5WM) discussed NVIS Antennas and led us in an NVIS installation. Everyone had a good time and took home what we had learned. As there is a lot of interest in this activity and several folks work during the week, plans are being discussed to have QRP part 3 on a Saturday.

Our last club meeting was presented by William Wakely (KM4JQF) on “Near Space Balloon Flights”. Everyone that attended had great things to say about William, his knowledge and the perfect presentation he gave us. Below is a link from www.qrz.com on a Balloon Launch similar, I believe, to one of William’s.

http://forums.qrz.com/index.php?threads/615246

We are honored to have Tom Shutters (K4FJW) of the Bristol Amateur Radio Club present the June Program to us. Tom is not new to this hobby and is considered by those that know him, a Giant in this field. His presentation will be on Yagi Antennas, in particular, the DL6WU Yagi Antenna. Come enjoy the meeting and bring a friend!!!

Field Day 2018 is here!!! That's' right, FD 2018 is being held this year on June 23 and 24th. Last year was a Blast and we expect Great things again this year!!! Ron Burns (KI4TN) has been gracious to us by being the Captain again this year and we are blessed to have Carl Hacker (WC5WM) as our Chef. We will meet for breakfast and then assemble at Shelter 11 on Duck Island at Warriors Path State Park in Kingsport. Times will be announced later. By the way, instead of carrying your gear up the hill, you drive your vehicle to the rear of the pavilion, unload and then park in the parking lot. Details will be discussed at the club meeting and at breakfast.

Please be aware that the breakfast location for the 4th Wednesday of the month has changed. We now meet at Café 93, located at 5199 Sullivan Gardens Pkwy in Kingsport Tn. The menu is a little different, prices are very reasonable and of course, the fellowship is always great!!! Be sure to bring your spouse.

John Williams has written another fine article for us to read. Thank you so much, John. Your articles are informative and interesting!!!

QRP In The Park

During the first week of May the Kingsport Amateur Radio Club sponsored an exercise called "QRP in the Park". The purpose of this activity was to expose operators to the challenges of low power, portable/semi-fixed operations. The desired goal was to introduce participates to the crucial considerations essential for success in this endeavor. Each of our participating club members become aware of the difficulties in areas of radio, power supply, and antenna deployment, often as "lessons learned"

by hands on application. Those taking part in this venture were: Bob Warden (KU4R), Carl Hacker (WC5WM), Craig Walled (AC4M), David Gulley (KI4AAU), Erik McCord (WX4ET), John Williams (KJ4ZFK), Larry Dale (KD4FTN), Neil Weber (KM4NWH), Rick Johnson (WB4RLJ), and Tom Price (KI4CVU).

Okay, so what's the big deal about operating portable and away from one's home or office? What's to be accomplished by carrying radios outdoors into the weather or taking a chance of breaking something? So, what's this all about and why the interest?

First of all, we ought to define "QRP". Simply stated it is the operation of our transceivers at a low power setting, typically at ten watts or less. Depending upon the mode, sometimes the transmission power is even less than a watt. Because transmit power is at a minimum, operators need to learn how to maximize other variables to achieve successful QSOs. So, this exercise, "QRP in the Park", was meant to introduce techniques and methods which generally can be dependent upon to achieving low power operational success.

You may ask, "What is a QRP radio?" Some of our radios, which we may normally operate at 100 watts or more from our vehicles or base stations, can be reduced in output to settings as low as five watts. Other radios may have five watts as their maximum or only power out settings. And some of the home-built kit radios may be rated at less than a watt! QRP operations occur when we use radios that transmit less than ten watts for Single Side Band (SSB) or five watts or less for data modes and mores code (CW). Yet the radio is only one aspect of the QRP blueprint.

How about the power supply? Power is what makes it all work – needed to bring the radio to life and in some cases to power up an antenna tuner. There are all kinds of power sources, e.g., solar panels, generators, nine volt batteries (as typically found in your home smoke detector), deep-cycle automobile battery, and Sealed Lead Acid or Lithium Ion or Lithium Iron Phosphate battery chemistries usually around twelve volts. The power supply selected is going to help determine how portable an operator may be; mobility decreases rapidly as power supply weight increases. Typically, those who are looking for portability select power supplies of the newer light-weight batteries, such as Lithium Iron Phosphate batteries, or even

solar panels. Additionally, an operator needs to select a power supply with a capacity that ensures sustainability for the period of time the operator wishes to be on the air. For example, a solar panel source is not going to be very reliable during periods of darkness, nor will a nine volt battery last very long for Single Side Band operations. Now consider, regardless how great the radio and its power supply is, a successful operation still needs the all important antenna.

A discussion of antenna types usually ends up in a squabble. There is not going to be an easy answer to this one. Seems everyone likes to rely upon their favorite home antenna, but an operator's favorite base station or vehicular antenna may not have a place when we are involved in QRP operations. For some, reconnecting their home antenna after moving a QRP operation into the back yard may work okay, but that is not the classic response for a call to QRP. Normally mobility and expediency is why we do QRP outdoors, so we need an antenna that supports those criteria. Typically, a QRP antenna is light-weight, strong, simply, easy to deploy, and multiple band capable. Now is not the time to try to run a 165 foot random wire antenna through the trees, nor try to suspend a multi-band fan dipole antenna thirty feet into the air. An end-fed half-wave multi-band antenna or a vertical antenna seems to be more appropriate most of the time. Yet, conditions dictate selection of antenna type; for example, a vertical antenna will not work on a mountaintop bald without trees from which to suspend it, but does work beautifully if the operator brought along a telescoping thirty foot mast. If one's antenna is resonant on multiple bands, then an antenna tuner is not required. An antenna which does not need a counterpoise is much simpler and easier to set up than having to string out multiple wires underneath the radiating element. An antenna which is easy to configure and sets up rapidly as either a horizontal, vertical, inverted vee, or sloper is like gold to QRP deployments.

So, there it is – the big three: radio, power source, and antenna. So what is the rest of the story? Consider the contents of the "accessories bag" as the single most over-looked items which often result in failure. These bits and pieces may include antenna lead in (coax) cable, antenna connectors, power cable, headset, microphone, CW key, paper and pen, watch or clock, and waterproof liner to keep it all dry and clean. And, of course, one needs a pack of some kind to transport these items along with the antenna, power supply, and radio.

Having held just one “QRP in the Park” achievement our club’s leadership is hardly finished with a dedication for making resourceful, competent, and proficient QRP operators. It is going to take more than a single visit to the park. Consequently, there will be another gathering that will occur with all participates located at one venue, to share lessons learned and to demonstrate acquired QRP skills. And following later in the year our QRP operators may spread out to various parks in the area and attempt to operate a QRP net. Additionally, new material will be introduced during these ongoing activities, to include subjects such as band selection, use of electronic devices, and Near Vertical Incidence Sky wave (NVIS) antenna construction and deployment.

So, if you wish to learn about QRP operations, you need to let the club leadership know. There will soon be another gathering in a local park. We look forward to having you join us for some fun and an opportunity to learn.

Seventy-three’s to all,
--John (KJ4ZFK).

Monthly Meeting Minutes

10 MAY 2018
Time 19:00 Hrs
Meeting Opened- George (W3KPT)
Prayer by- John(KJ4ZFK)
TREASURY REPORT – Rick (WB4RLJ)
SECARTARY REPORT – Minutes from last month’s meeting accepted.
NET REPORT – Rick (WB4RLJ) Sunday net operating well – need NCS’s
ARES REPORT –Walt (K4YCP) No hospital check in- Apr Exc used for quarter check in
Repeater report – Ken (W4IJK) Up and running
WEBSITE REPORT – No report
OLD BUSINESS – Field day coming up – Ron Burns In charge
NEW BUSINESS – Need VE’s
Meeting closed – George(W3KPT)
PROGRAM – William Wakely (KM4JQF) Near Space Balloon Flights

Below is the Field Day 2018 News Release prepared by George DeVault (W4KPT). Thank you so much, George for this!!!

KINGSPORT AMATEUR RADIO CLUB
TO PARTICIPATE IN HAM RADIO FIELD DAY

Contact:
Larry Dale – President
Email: sevenbinary@outlook.com

June 15, 2018

Members of the Kingsport Amateur Radio Club will participate in the national Amateur Radio Field Day exercise June 23 and 24 at Shelter 11 on Duck Island at Warriors Path State Park in Kingsport. Since 1933 ham radio operators across North America have established temporary ham radio stations in public locations during Field Day to showcase the science and skill of Amateur Radio. This event is free and open to the public, and all are encouraged to attend.

For over 100 years Amateur Radio --- sometimes called “ham” radio --- has allowed people from all walks of life to experiment with electronics and communications techniques as well as provide a free public service to their communities during disasters, all without needing cell phone or Internet service. Field Day demonstrates ham radio’s ability to perform reliably under any conditions from almost any location and create an independent communications network. Over 35,000 amateur operators from thousands of locations participated in Field Day last year.

It’s easy for anyone to pick up a smartphone or get on a computer, connect to the internet, and communicate, with no knowledge of how the devices function or connect to each other,” said Dave Isgur of the American Radio Relay League, the national association for amateur radio. “But if there is an interruption of service or you’re out of range of a cell tower, you have no way to communicate. Ham radio functions completely independent of the Internet or cell phone infrastructure, can interface with tablets or smartphones, and can be set up almost anywhere in minutes. That’s the beauty of Amateur Radio during a communications outage.”

Hams can literally throw a wire in a tree for an antenna, connect it to a battery-powered transmitter, and communicate half way around the world. Hams do this by using a layer of the Earth’s atmosphere as a sort of mirror for radio waves. In today’s do-it-yourself environment ham radio remains one of the best ways to learn about electronics, physics, meteorology, and numerous scientific disciplines, and is a huge asset to any community during disasters when the standard communications infrastructure goes down.

Anyone may become a licensed Amateur Radio operator. There are over 725,000 licensed hams in the United States, as young a 5 and as old as 100. And with clubs such as the Kingsport Amateur Radio Club, it's easy for anybody to get involved right here in the Tri-City area.

For more information about Field Day, contact KARC president Larry Dale via email at sevenbinary@outlook.com or visit www.arrl.org/what-is-ham-radio.

Do you need a new Handheld Radio? The Johnson City Club has Raffle and you may want to participate.

WIN A BRAND NEW YAESU SYSTEM FUSION FT-70D DUAL BAND HANDHELD WITH RAPID CHARGER BASE!

THIS RAFFLE IS SPONSORED BY

JOHNSON CITY AMATEUR RADIO ASSOCIATION, INC.

TICKET PRICES: 1 TICKET- $5.OO 3 TICKETS- $10.00
THE PROCEDES OF THIS RAFFLE SUPPORTS JCARA'S 2018 OPERATING BUDGET.

TICKETS ARE AVAILABLE UNTIL THE BEGINNING OF THE AUGUST 21ST MEETING OF THE JOHNSON CITY AMATEUR RADIO ASSN.
THE DRAWING WILL BE HELD AT THE END OF THE AUGUST MEETING.
YOU DO NOT NEED TO BE PRESENT TO WIN.
IF THE WINNER RESIDES OUTSIDE OF THE TRI CITIES AREA YOUR PRIZE WILL BE SHIPPED TO YOU VIA USPS PRIORITY MAIL, INSURED.

FOR FURTHER INFORMATION CONTACT:
George Odom, K4ETN at 423-948-3028 or email: k4etn@comcast.net

Are you or a friend looking for a Saturday Testing Session? The Bristol Club is offering one on June 16. See below.

The Bristol Amateur Radio Club VE team will conduct a test session for all license classes on Saturday, June 16. The session will be at 10 AM and the cost will be $15. We hope this provides a chance for candidates who have been studying for the Technician class to test before the current question pool expires on June 30, 2018.

The session will be conducted at Faith Lutheran Church located at:

2909 Weaver Pike
Bristol TN 37620-9013

Please bring 2 forms of ID with one being a photo ID. We also ask that you get an FRN number too. If anyone is wanting to upgrade their current license, you will need to print an Official Copy of your license that is signed. As always, bring a couple of pencils for your test and a pen in blue or black ink for filling out forms. If anyone has any questions, please feel free to contact me at 276-791-0102.

Ben Morris K4EDI
VE Liaison

THE ZERO BEAT NEWSLETTER

Published monthly by the Kingsport Amateur Radio Club and Bay's Mountain Radio Club. For more information on the Zero Beat, please contact: Dave Stevens at WB4DES@gmail.com

Kingsport/Bays Mountain Radio Clubs' Officers 2018

Larry Dale: KD4FTN, KARC/BMRC President,
George DeVault Jr.: W3KPT, Vice President
Rick Johnson: WB4RLJ, KARC Secretary
Dave Stevens: WB4DES, KARC Treasurer / BMRC Treasure Ken Klotz W4IJK Club Repeater License Trustee

Rick Light: KG4WZG, BMRC Vice President Dave Stevens: WB4DES, W4TRC Webmaster Web Site: www.w4trc.org

W4TRC 146.970 MHz REPEATER INFORMATION:

Location is on Bays Mountain, Kingsport, TN
2 Meter repeater: 146.970 MHz, (-) PL Tone, 123.0 Hz.
440 Repeater: 443.325 Mhz. (+), PL Tone, 123.0 Hz.
33Cm. Repeater: 927.025 Mhz. (-) PL Tone 123.0 Hz.
50-watt Packet Station Frequency, 145.050 MHz, and the Alias is BaysND.

Sunday Night Informational Net on 146.970 at 8:30 P.M. EST

For More Information on the KARC/BMRC and Amateur Radio, Visit our Club Website at www.w4trc.org

For More Amateur Radio News, Visit the American Radio Relay League Website at www.arrl.org

A.R.E.S.

Walt Baldree, K4YCP, West Sullivan County ARES® Coordinator

Net Schedules (as off 1/03/2018)

Kingsport Amateur Radio Club/Bays Mountain Radio Club weekly two-meter net, Sunday night at 8:30 p.m., on the W4TRC repeater at 146.970 Mhz. The net includes ARES® check- ins and an opportunity to sell, buy and/or swap equipment.

The Boone Trail ARES®/RACES Net is held each Monday night at 8:30 pm on the 146.820 MHz KF4VTM repeater. A C4FM digital Fusion net is held on Thursday evenings at 8:30 pm on 146.820 except for the 3rd Thursday.

The Carter County Amateur Radio Association (CCARA) repeater is WR4CC on 145.290 MHz, with a tone of 103.5. The club holds a net every Monday evening on their repeater at 8:00 pm.

The Johnson County Net is Monday at 9:00 PM on 145.290 MHz with a 103.5 tone or direct on 146.610 MHz with the same tone (103.5). 6-meter Net every Thursday at 8:30 p.m. The Net is at 53.330 MHz, and the repeater has a tone of 103.5.

Johnson City Amateur Radio Association's Net is held on Tuesdays at 8:00 p.m. on the 146.790 MHz Repeater. Tone is 131.8 with a negative offset. This net is not held on the 3rd Tuesday, the night of the JCARA's monthly meeting.

Bristol Amateur Radio Club’s 2 Meter net meets every Tuesday night at 9:00 PM on the 146.070/670 Bristol Repeater.

Mountain Empire Amateur Radio Society's 440-net, Wednesday at 9:00 p.m., on the 443.00 Repeater. Everyone is invited to check in.

Unicoi County Amateur Radio Association's Net, Thursday at 8 pm on 147.270 MHz. Except for the first Thursday of the month which is the Club Meeting.

SKYWARN Net, Thursday at 9:00 p.m., on the 146.700 MHz Repeater.

Area Amateur Radio Clubs/Organizations Meetings

Bristol Amateur Radio Club meets the first Thursday of each month at 7 pm in the Conference Center at the Bristol Memorial Medical Center. Take exit 74 off Interstate 81 in Tennessee. For more information, email w4ud@qsl.net

Carter County Amateur Radio Association meets the first Tuesday of each month at 7 pm at 805 Highway 91, Elizabethton, TN (0.5 miles past the 2nd traffic light on Hwy 91 or 3.5 miles from Hwy 19E on the left side of the highway).
For more information go to the Club's web page at http://www.wr4cc.org

Johnson City Amateur Radio Association meets the 3rd Tuesday of each month at 7 pm at the Washington Co/Johnson City EMS Training Building 296 Wesley Street Johnson City, TN 37601. Contact JCARA, 240 Hartman Road, Jonesborough, TN, 37659.

Kingsport Amateur Radio Club/Bays Mountain Radio Club meets the second Thursday of each month at 7 pm at the Toy Reid Eastman Employee Center, South Wilcox Drive, Kingsport, TN, unless meeting changes are made due to Eastman related activities. For more information email w4ijk1@gmail.com .

The Mountain Empire Amateur Radio Society (MEARS) meets the third Thursday of each month at 7 p.m., at Washington County Public Library in Abingdon, VA, with possible exceptions in November and December. For more information, visit their website at http://www.home.earthlink.net/~mears_arrl/

Scott County (VA) Amateur Radio Society meets the third Thursday of each month at 7 p.m., at the EOC Building behind and under the Lonesome Pine Regional Library, Gate City, VA. For more information, email Jeff K4LMP at k4lmp@k4lmp.org

Unicoi County Amateur Radio Association will be moving the meetings to Maple Grove Restaurant in Unicoi. This change will take place Feb. 5,2015. The weekly ARES nets will change to Thursday evenings at 8pm as of Thursday December 11, 2014. For more information contact Ken Johnson at w3gfmkj@gmail.com

Johnson County Amateur Radio/Ares club meets the second Tuesday of each month at 7 p.m., at the Johnson County Hospital Conference Room. For more information contact Danny Herman at K4DHT@dannyherman.com

WX4TN Northeast Tennessee District 7 SKYWARN meets every last Saturday of each month at 7:00 p.m., at the Crossroads Christian Church; 1300 Suncrest Dr.; Gray, TN in the Lower Auditorium. www.skywarn7.org For more information contact Erik McCord (WX4ET), District Coordinator at dc7skywarn@gmail.com