

The RCARC Beacon

“Uniting The World Through Amateur Radio”

Repeaters sponsored by RCARC on Roosevelt Mtn.

KE4RX/r 147.015 + (pl 110.9) Roane County ARC

KE4RX/r 443.975+ (pl 110.9) Roane County ARC

KE4RX/r 441.8125 + DSTAR Roane County ARC

KE4RX-1 144.390 APRS Digipeater Roane County ARC

K4APY/r 147.120 + (pl 82.5) K4APY Repeater

K4APY/r 224.840 - (pl 82.5) Coming Soon

Volume 61 • Issue 2

February 1st 2021

A Newsletter from The Roane County Amateur Radio Club



Visit Our website at www.ke4rx.org

RCARC Meeting : February 11th, via Google Meet 7:00 PM

News From The Treasurer



Hello Everyone!!

I hope everyone is doing well. **The February 2021 meeting of the Roane County Amateur Radio Club will be held online via Google Meet on February 11^h at 7:00 PM . We will e-mail a link to members on the email list for the Google Meet meeting when it is available and post it on the Facebook Page too, so be prepared to join in.** If your not on the club group email, you need to sign up at www.ke4rx.org/email/ . Keep check on the Monday Night Net on 147.015+ PL 110.9 Mondays @ 8:00 PM.. for breaking news and updates. I am optomistic we will be able to return to possilby outdoor face to face meetings in March or April 2021 when the weather fairs up.

Beginning January 1st 2021 RCARC Memberships are due so if you have already renewed for 2021, Thank You! If you still need to renew your RCARC membership for 2021, send it in to the PO box please. RCARC PO Box 1104, Kingston, TN. 37763 using the application form on the last page of this newsletter. Thanks again and we look forward to a better 2021!

Tennessee Phone Net on 3.980 Mhz 80 Meters!!

Lee Grace KM4AKE has been checking into the Tennessee Phone Net and is encouraging Roane County Members to step up and Check In! It is a fairly long net but worth checking in and getting used to working HF. Time to fire up the HF Rig and tune up to check in.

Times are: Mornings M-F starts 7:45 am and depends RC is about 8- 8:05

Evening M-F starts 6:30 pm and RC about 7:50-8 pm

Saturday usually starts 9 am evening 6:30

Sunday well 9 am evenings I'm not to sure.

Finally the Roane County VE Team has a test session scheduled for February 13th 2021 . **By appointment at 9:00 AM** in the Trenton Street Baptist Church in Harriman. If you need to take a HAM test contact Keith Dalton WV4G [wv4g.keith\(at\)gmail\(dot\)com](mailto:wv4g.keith(at)gmail(dot)com) to schedule an exam. Please see the information on VE testing in this newsletter.

C-ya!!

Jim White K4APY

Don't Forget! **2021 Memberships Are Now Due Beginning January 1st**

Don't forget, RCARC memberships run January 1st till December 31st every year. Full memberships are \$20 for a licensed HAM (\$30 family memberships 2 or more licensed HAMS in the same family at the same address) \$10 for Associate members who are not licensed HAMS. We have a few folks who have already renewed early for 2021, so don't forget to support our club in the next year. We have been blessed by the generous donations from JTV and the hard work from Sterling N4VAV and other members to help move this equipment to generate cash for the club. **If** you are unsure of your membership status, just send me an e-mail to k4py (at) yahoo (dot) com and I will get back to you. Our membership dues are only part of our income so every bit helps. Thank You to everyone for helping make RCARC the community driven club we have become. See our club application on the last page of this newsletter!

Roane County VE Team offers Ham Radio Exams

The Roane County VE Team offers ham Radio Exams on every even numbered month at the Trenton Street Baptist Church in Harriman at 9 am. If you are interested in scheduling a HAM radio exam, get in touch with Keith Dalton WV4G to make arrangements.

Send E-mail to:

Keith Dalton: [wv4g.keith\(at\)gmail\(dot\)com](mailto:wv4g.keith@gmail.com)

What they need is your name, the date you want to take an exam and your phone number for them to be able to contact you.

The next exam is on **February 13th 2021** by appointment. **Several folks have asked about Virtual Testing. The Roane County VE Team does not offer virtual testing.**

Good Luck!!.

Meet the Roane County VE Team!!



(Left to Right) David Rogers AC4DR, Mike Winters AG4OT, Jim Dalton K4FPG, Buddy Miles K4CPF (certified pipe fitter!!) and the VE Team Leader Keith Dalton WV4G. They are always ready to answer any ARRL Testing related questions and to schedule an exam. Exams are offered on the second Saturday of every even numbered month at 9:00 am By Appointment at the Trenton Street Baptist Church in Harriman, TN.

E-mail Keith for more information or to schedule your exam. [Wv4g.keith\(at\)gmail\(dot\)com](mailto:Wv4g.keith(at)gmail(dot)com)

Jewelry Television in Knoxville, TN

has provided RCARC with Generous donations of retired equipment that has been a welcome financial benefit to our club.

Thank You Jewelry Television!!

WWW.JTV.Com



ROANE COUNTY VE INFORMATION

The Roane County Amateur Radio ARRL Volunteer Examiner (VE) Testing Team provides the following information.

First time test candidates need to bring to the test session:

- 1) a photo ID,
- (2) FCC Issued FRN Number (You will need to apply for and receive the FRN number from the FCC before we can give you a test.) This is a change beginning in 2021. Apply for an FRN number at this link : <https://apps.fcc.gov/coresWeb/publicHome.do>
- (3) \$15.00 test fee.

Please bring correct change. Test fees are subject to change as directed by the ARRL.

If you are planning to upgrade to a higher class license, or modify your license in any way, bring:

- (1) a copy of your current license which we are required to send in with the paperwork,
- (2) a photo ID,
- (3) your FRN* and
- (4) \$15.00 test fee.

If you have just passed an Amateur test for the first time, you can normally find your new call sign posted on the ARRL data base at <http://www.arrl.org/advanced-call-sign-search> or the FCC data base at <http://wireless2.fcc.gov/UlsApp/UlsSearch/searchLicense.jsp> by Friday of the week after your test. Once you see your call sign posted, you can legally get on the air on any frequencies assigned to your class of license.

The Roane County Amateur Radio Club meets on the second Thursday of each month in the Conference Room in the Rockwood Community Center, 710 N. Chamberlain Ave, Rockwood TN. at 7:00 PM. We encourage you to join the Club and participate in its activities. Additional Information about the Roane County Amateur Radio Club can be found at: www.ke4rx.org/

The Roane County Amateur Radio Club has a Net each Monday night, except on major national holidays, at 8:00 on the Club's KE4RX repeater. The repeater frequency is 147.015+ with a tone of 110.9. The backup repeater for KE4RX is K4APY 147.120+ with a tone of 82.5.

The Roane County Amateur Radio Emergency Service (ARES) Net is called each Tuesday evening at 8:00 on KE4RX 147.015+ repeater with a tone of 110.9, except on the third Tuesday of the month when the monthly meeting is held at 7:00 in the Roane County EOC at Kingston.

Amateur radio tests are given on the second Saturday of even months, i.e. Feb, Apr, Jun, etc. by appointment only. A VE testing team member must be contacted prior to the scheduled Saturday or the team will not be at the test location. Applicants should have studied from the current license study guide for the license class they will be tested.

Roane County VE team members are:

Keith Dalton, (Team Leader) WV4G: [wv4g\(at\)arrl\(dot\)net](mailto:wv4g@arrl.net) or [wv4g.keith\(at\)gmail\(dot\)com](mailto:wv4g.keith@gmail.com)

Buddy Miles, K4CPF: [jbuddymiles\(at\)msn\(dot\)com](mailto:jbuddymiles@msn.com) Phone: 865-376-7842

David Rogers, AC4DR: [ac4dr.tn\(at\)gmail\(dot\)com](mailto:ac4dr.tn@gmail.com) Phone: 865-435-0159

Mike Winters, AG4OT: [preachermike77\(at\)yahoo\(dot\)com](mailto:preachermike77@yahoo.com) Phone: 865-382-1054

Jim Dalton, K4FPG: [k4fpg\(at\)arrl\(dot\)net](mailto:k4fpg@arrl.net) or [jsdaltonk4fpg\(at\)att\(dot\)net](mailto:jsdaltonk4fpg@att.net) Phone: 865-882-2639

Jim White, K4APY: [k4apy\(at\)yahoo\(dot\)com](mailto:k4apy@yahoo.com) 865-603-7212

Tests are given in the Fellowship Hall at Trenton Street Baptist Church in Harriman at 519 Trenton Street.

Coming through downtown Harriman on US 27 (Roane St.) turn East at traffic light # 7, go one block on Queen St., turn left on to Trenton Street, then immediately left into the church parking lot. Signs will direct you to the Fellowship Hall. ***First time license applicants must obtain an FCC FRN number** for use on Form 605.

The FRN uniquely identifies an applicant in all future transactions with the FCC. You can obtain your individual FRN from the FCC by going to the following FCC website: <https://fjallfoss.fcc.gov/coresWeb/publicHome.do>

Learn About RCARC At

WWW.KE4RX.ORG

Ham Shack Grounding Principles

Submitted By Lee KM4AKE

Grounding and Ground Loops !
Borrowed from online source !

The story begins with the young Ham setting up his ground system for his shack!

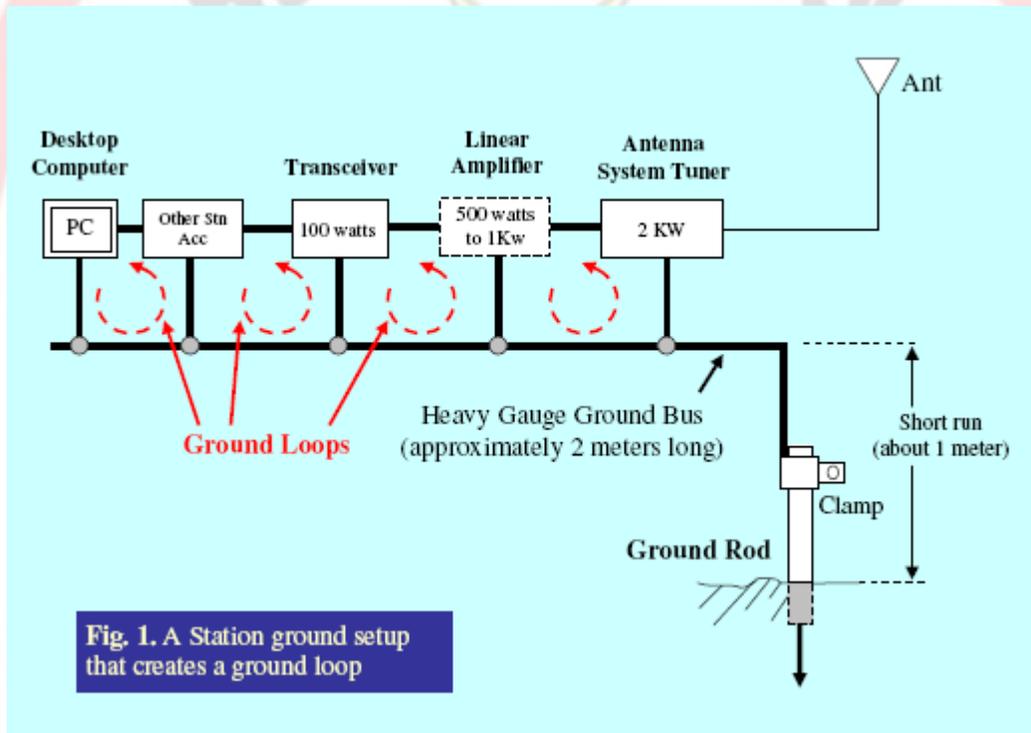


Figure 1.

When everything was in order, he fired the 100 watt transceiver and began transmitting in J3E or any mode by calling another station at 7.035 MHz. To his surprise, the station operator at the other end responded to tell him that his signal was S9 but the audio was garbled, gritty and fuzzy. Further adjustment and tweaking the ALC and mic gain controls did not solve the problem. He further observed that by reducing the RF power to 50 watts PEP, the problem disappeared. But when he switched on his linear amplifier to give 250 watts PEP output, the problem returned and became even worse. The two stations spent almost two hours of adjusting "this" and "that" but alas, to no avail. Just as our good and neat fellow ham was about to retire after a frustrating day, a third ham who has been monitoring the exercise came on frequency, and then politely said "You may be suffering from a "POOR GROUND".... The problematic ham answered "What?... I have a perfect ground system". He then described his new and neatly connected grounding setup".... "Hmmm...." said the third ham "You may have GROUND LOOPS! "...Then he proceeded to explain why. During the long QSO exchange, the problematic ham learned the following:

*** Ground loops are formed when the individual ground wires of each connecting equipment are:

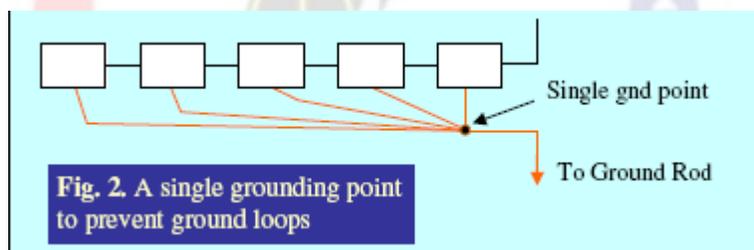
1. Ground loops are formed when the individual ground wires of each equipment are connected to the main ground bus at a point that is distant from each other (see Fig. 1)

2. The individual station equipments already have their own ground reference but when they are interconnected, grounding each piece of equipment to the main ground bus as shown in Fig.1 creates GROUND LOOPS. Each time a ground loop is created, a small inductive coil is formed (the ground wire completes the loop).
3. When the ground loops are in the near field of RF energy (During transmit mode), these loops will couple to the RF energy (called RF coupling). As the RF energy is coupled to each loop, a fluctuating voltage is induced in unison with the burst of audio modulation of the RF energy. This energy will flow within the system and will seek the least resistance by following the associated circuits and eventually creeping into other internal circuits.
4. Once the RF is inside these circuits, it will interfere with the normal operating parameters of sensitive circuits thereby creating havoc. RF bleed-over escaping from long interconnecting coaxial cables may also flow within each loop, bathing the whole shack with RF energy.
5. His new ham shack has an excellent DC electrical ground system but has a VERY POOR RF GROUND SYSTEM!

Finally, the Elmer suggested to him to try the following:

1. Dismantle the present ground wire configuration.
2. Remove the long ground bus and terminate all ground wires from each equipment into a single point near your ground rod.

The problematic ham scribbled quickly in a piece of paper and came up with a final wiring that looked like the circuit shown in Fig. 2.



**Hope your station stays Ground Loop Free and hear you "On the Air"
de Lee KM4AKE**

Happy Birthday RCARC!

According to the ARRL, the original RCARC was formed around 1960, but the RCARC we have come to love and know was reformed on February 2nd, 1987 and has been going strong ever since. We've had our ups and downs in Membership, but the club has held together and prospering.

The first President elected by RCARC was Loy Dormer (call unknown). The first Secretary was Dean Webb WB4NLT now N4NLT, and The first Treasurer was Johnny Cole KA4QYI / SK.

At the first meeting on 2/2/87 it was recorded that the hat was passed to collect \$238 to purchase a set of duplexers . Also \$36 was collected toward the purchase of a repeater which is now what we know as our KE4RX 147.015. On a side note, The clubs vanity call was in honor of one of the original RCARC Members Sunny Skidmore KE4RX/sk

Just wanted to pass on some of the history of how our club was formed and became known as The Roane County Amateur Radio Club KE4RX

www.ke4rx.org

Jim White K4APY

RCARC Net News!

The Roane County Amateur Radio Club net is back on 147.015 PL 110.9 each Monday evening at 8:00 pm. Join us every Monday evening for a great informal 2 meter net!!

Net Controller Schedule:

First Monday night : Lee Grace KM4AKE

Second Monday Night: Cliff Segar KD4GT

Third Monday Night: Don Coffman KJ4VWE

Fourth Monday Night: Jim White K4APY

Fifth Monday Night and Alternate: Bill White KK4AGX

Anyone interested in calling a net or being an alternate net controller, please let Jim White K4APY know and we will put you in the roster. k4apy@yahoo.com

The Roane County ARES Net is every Tuesday on 147.015 +pl 110.9 at 8:00 pm except the third Tuesday which is the monthly meeting at The Roane County EOC , 230 N. 3rd Street in Kingston, TN. Roane County ARES welcomes anyone interested in emergency communications and training. Contact Bill Farnham **KI4FZT** for more information on ARES/DEC [bfarnham\(at\)utk\(dot\)edu](mailto:bfarnham(at)utk(dot)edu) COML (Type III All Hazard Comm Unit Leader)**Division of Emergency Communication Roane County Office of Emergency Services & Homeland Security**

Important Dates To Remember!

RCARC Monthly Meeting for February 11th 7:00 PM will be held online via Google Meet. Watch your e-mail for a link to the meeting and also on the Facebook Page.

RCARC KE4RX

Monday Night Net 147.015+ PL 110.9

Roane County N4OES

ARES/DEC Net 147.015 + PL 110.9

Both Nets Held @ 20:00 hours

02/08/21 NCS KD4GT

02/15/21 NCS KJ4VWE

02/22/21 NCS KK4AGX

03/01/21 NCS KM4AKE

03/08/21 NCS KD4GT

03/15/21 NCS KJ4VWE

03/22/21 NCS K4APY

03/29/21 NCS KK4AGX

04/05/21 NCS KM4AKE

04/12/21 NCS KD4GT

02/09/21 East TN ARES / Emcomm Net

02/15/21 RC ARES Meeting Via Zoom

02/23/21 East TN ARES / Emcomm Net

03/02/21 East TN ARES / Emcomm Net

03/09/21 East TN ARES / Emcomm Net

03/16/21 RC ARES Meeting Via Zom

03/23/21 East TN ARES / Emcomm Net

03/30/21 East TN ARES / Emcomm Net

04/06/21 East TN ARES / Emcomm Net

04/13/21 East TN ARES / Emcomm Net

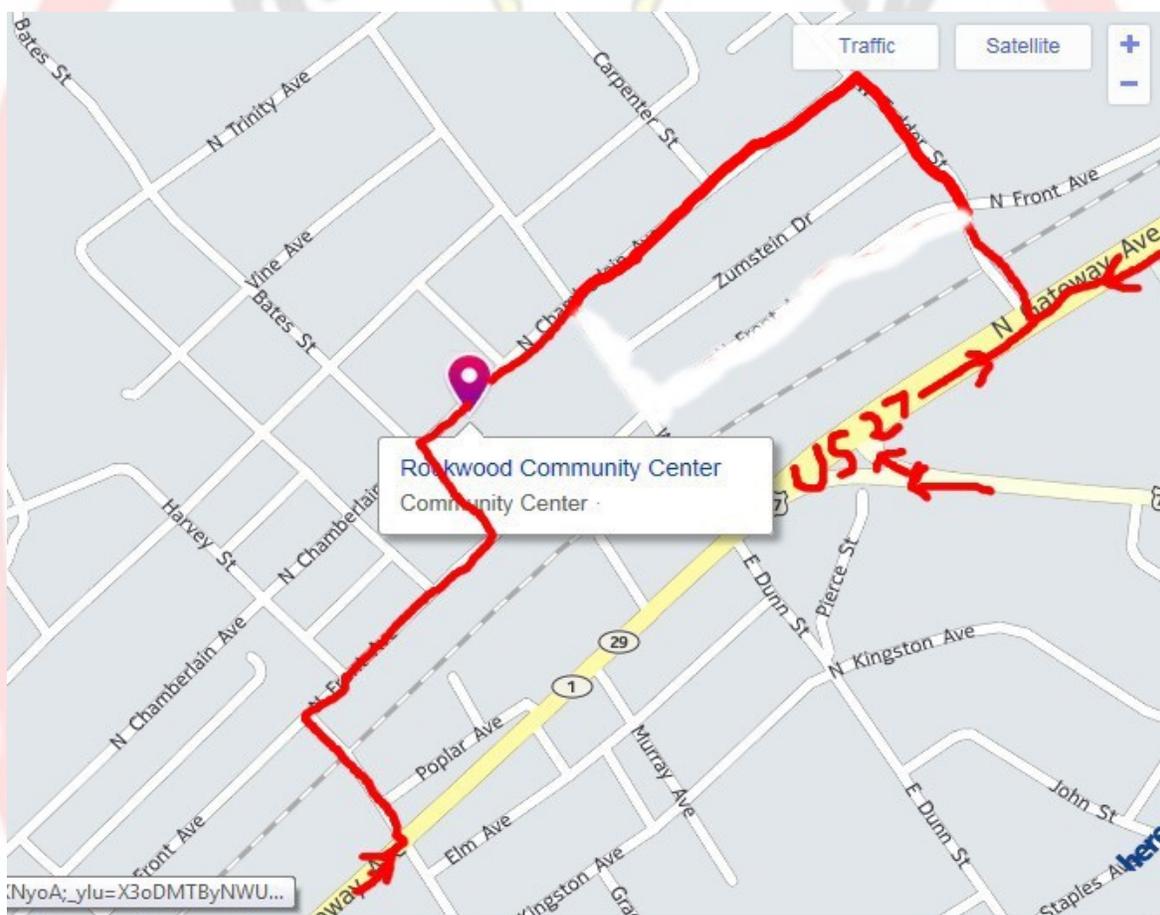
I hope to hear you all on the nets!

WWW.KE4RX.org

Hamfests within About 100 miles

- ***2/27/2021 Dalton Hamfest, Dalton GA. www.w4drc.com/hamfest***
- ***3/27/2021 The Sevier County Hamfest Sevier County Fairgrounds 754 Old Knoxville Hwy Sevierville TN. <https://seviercountyars.com/hamfest-2021>***
- ***6/19/2021 RACK Hamfest Knoxville Hamfest and Electronics Convention, ARRL Tennessee State Convention <http://WWW.W4BBB.ORG>***

Join RCARC Today!! Learn How on www.ke4rx.org



RCARC Normal Meeting Location!

No Face to Face Meeting in February 2021

Directions to the meeting location: From US 27 North turn left on Stratton St. (at IGA) then 1 block turn right on Front Ave. Turn left on Bates St. then right on N. Chamberlain Ave. Look for community Center. From US 27 South, turn right on W. Tedder St. then left on N. Chamberlain Ave. Arrive at Community Center. US 70, bear to the right on US 27, then left on W. Tedder. Follow previous directions off Tedder. I would have had everyone come to W. Dunn St., but last time I was there, it was blocked off at the train tracks. Talk In on 147.015+ (pl tone 110.9) I hope to see everyone there!!

RCARC Officers for 2021



President : Sterling Edmunds N4VAV
[nicholas_edmunds\(at\)yahoo\(dot\)com](mailto:nicholas_edmunds@yahoo.com)



Vice President : Cliff Segar KD4GT
[kd4gt.tn\(at\)gmail\(dot\)com](mailto:kd4gt.tn@gmail.com)



Secretary : Lee Grace KM4AKE
[lgracetn56\(at\)gmail\(dot\)com](mailto:lgracetn56@gmail.com)



Treasurer : Jim White K4APY
[k4apy\(at\)yahoo\(dot\)com](mailto:k4apy@yahoo.com)

WWW.KE4RX.ORG

Friends of RCARC

RCARC would like to show our appreciation and many Thanks to Eric Barger KG4RJR of Barger and Sons for their help and donations on our tower project!



We would also like to Thank D&M Fencing for their help and fast service installing the fence around our KE4RX Tower



Ted McKinney 865-919-4495



Rodney Harback owned Eddies Body Shop a few years back and he painted 2 towers and the repeater shack door for the club completely free of charge. Rodney sold Eddies Body Shop but now owns The Roane Street Grill but we still want to Thank Rodney Harback for his generosity and support to Roane County Amateur Radio Club. Be sure to stop in for some good food and say Hi to Rodney!

Join Us On Facebook!!

[Search for The Roane County Amateur Radio Club Group](#)

Do you use Facebook? If so RCARC has a facebook group. It's a great way to stay in touch with whats going on at RCARC and share ideas for the club and events. Check it out. Just search for **The Roane County Amateur Radio Club** and it should be there! If you need a link, just drop me an e-mail and I'll send you one. Hope to see you in the group!!

Jim

K4APY

[k4apy\(at\)yahoo\(dot\)com](mailto:k4apy@yahoo.com)

147.120 K4APY/r (pl 82.5) Repeater News

Just a quick note to say that the 147.120 has been running pretty good. I've had a couple issues with noise getting into the repeater and I'm still trying to get it figured out. I think that will get better and hopefully go away when the antenna is moved onto the tower with the correct feedline and antenna. There are 2 other repeaters over 100 miles away on this frequency that can occasionally be heard when conditions are right. Turning on tone squelch (receive tone on) will keep those from being heard on your radio.

Check Us Out On The Web! WWW.KE4RX.ORG

>>>>RCARC Classifieds<<<<

Icom IC-28H 2 meter transceiver. It is in working condition. Display backlight is out but still readable. \$50 Contact Jim K4APY [k4apy\(at\)yahoo\(dot\)com](mailto:k4apy@yahoo.com)

Comet H422dipole Used 1 year. After move will just use wires.. Been sitting in back.. rotatable, 40_20-15-10m.. used on 17 also. Elements 24'6" horizontal or v. Worked very well for me up only 30'. \$150.00. 779-770-3148 **text please** or email me [n9imhqs\(at\)gmail\(dot\)com](mailto:n9imhqs@gmail.com) . N9IMH good on qrz.

1 TB Computer Hard Drives RCARC has a large number of 1TB hard drives suitable for a desktop, RAID Array, or even put in a portable Hard drive case to make a portable external drive. These drives have been wiped and tested to be good by Sterling N4VAV . 1TB drives are \$20 each. 750GB drives are \$10 each and only 2 left!. Contact Lee KM4AKE or Jim K4APY [k4apy\(at\)yahoo.com](mailto:k4apy@yahoo.com)

Old Home Built 10 and 6 Meter Radios in a Rack Mount. Originally built by my father in law Andy Anderson K4APY, but after he passed no one in the family wanted it. I used it to listen to but when the power supply let the magic smoke out, It is just an onrnamet now. It's big and it's heavy. Lots of parts for someone who wants to repair / experiment with it. As is , no warranty. Very little documenttion. \$300 Contact Jim K4APY [k4apy\(at\)yahoo\(dot\)com](mailto:k4apy@yahoo.com) 865-603-7212

If your a club member and want to list something in the RCARC Classifieds that is ham radio related, Just shoot me a e-mail to [k4apy \(at\) yahoo \(dot\) com](mailto:k4apy@yahoo.com) and we will get it in next month!!

**The RCARC Beacon is published by:
The Roane County Amateur Radio Club
WWW.KE4RX.ORG
PO Box 1104
Kingston, TN. 37763
Editor: Jim White [k4apy\(at\)yahoo\(dot\)com](mailto:k4apy@yahoo.com)**



**Roane County Amateur Radio Club Membership
Application / Renewal
January - December**

Callsign: _____ Date of Application: _____

License Class: Circle One N T G A E

Name: First _____ Mi: _____ Last: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____ Home _____ Cell

E-mail : _____

ARRL Member: Yes / No

RCARC is an ARRL affiliated club. While ARRL membership is not required, it is encouraged and has several benefits.

Full Member \$20.00 Amount Enclosed: \$ _____

(FCC licensed Operator)
Associate Member \$10.00 Amount Enclosed: \$ _____

(Non FCC licensed member) *Please list names of Associate Member on the back of this form*

Family Membership \$30.00 Amount Enclosed: \$ _____

(Family with 2 or more licensed operators. *Please list the names of Family members on the back of this form.*)

Repeater Donation Amount Enclosed: \$ _____

Any extra repeater donation is greatly appreciated and is used to fund our repeater.

Total Amount Enclosed: \$ _____

Signature: _____

Date: _____

Please complete and return to:

R.C.A.R.C
P.O. Box 1104
Kingston, TN. 37763

The RCARC Monday Night Net is on KE4RX/r 147.015+ (PL 110.9) Each Monday evening at 8:00 pm Eastern time

The RCARC Monthly Meeting is on the second Thursday of every month at 7:00 pm Eastern time at The Rockwood Community Center, 701 North Chamberlain Ave, Rockwood, TN. Always come early and bring a friend.

Visitors, The Public and New memberships welcome at anytime.