

FEEDBACK



JOHNSON COUNTY RADIO AMATEURS CLUB, Inc.

The Johnson County Radio Amateurs Club normally meets on the 2nd and 4th Fridays, 7:30 PM at the Overland Park Christian Church at 75th and Conser streets, west of the Fire Station.

April Meetings

Friday, Apr. 12, 2013 7:30 pm
The program for this evening will be "The World of CW" by Rob Underwood W0RU.

Friday, Apr. 26, 2013 7:00 pm
The program for this evening will be a show and tell of mobile ham radio and computer installations. Members will show how they solved various installation challenges.

NOTE: The program will start in the Church parking lot, at **7:00 pm**, to take advantage of daylight. (You do not have to be a club member to demonstrate your mobile installation.)

Happy Birthday

When you get a chance, say "Happy Birthday" to the following club member(s). If your birthday is not listed here, it was not listed in www.qrz.com, but, you can email us the month and day and we will add it to the list:

Doris Goll	N0OVY	Apr.13
Richard Willis	K0KUD	Apr.29

JCRAC Dues Choices

Remember, you have an option now on JCRAC dues; pay \$40 for TWO YEARS, as compared to the regular rate of \$24 per year, and, your grandchild under the age of 18 qualifies as a member of the family for membership purposes.

Amateur License Testing

When?

Third Saturday of each month, at 9:00 am.

Where?

Johnson County Public Library
Blue Valley Branch, 9000 West 151st St.
Overland Park, KS
(Just west of Antioch on north side of 151st St.)

Fee? \$14

Pre-registration is NOT required.

Walk-ins are welcome!

For more information contact

Jim Lee, N0KCB 913-745-5121 or

e-mail: JimLee@kc.rr.com

Commercial Radio Tests are also available.

Public Service Events List

Larry Staples W0AIB compiles, and makes available by e-mail, a list of the public service activities/events in the metro Kansas City area. Please let W0AIB know of any ham-type public service events, with confirmed dates, scheduled to be held in the metro area in 2013.

Atlantic Cable

Ever wonder how the internet makes its way around the world? It is mostly by undersea cables. Back in 1858 the first (somewhat) successful cable was laid between Ireland and Newfoundland. This single conductor cable had seven strands of 22 ga wire, plus insulation and armoring. It operated for only three weeks. Transmission speed? A leasurely "few words per hour"! But it was on the leading edge technology of the time. The latest cable (upgraded in 2007) has a 10Gbit/s speed. Check out <http://atlantic-cable.com/> for some interesting history on cables and communication.

John KØIZ

Choose the Correct Answer

The correct answer to the problem on Pg 7 can be found as follows:

$$((7 + (7 / 7) + (7 \times 7)) - 7 = 50$$

Are you one of the 8 percent or the 92 percent?

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JCRAC Officers

President's Corner

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The club mailing address is: JCRAC, P.O.Box 93, Shawnee Mission, KS 66201. FEEDBACK is published monthly for the JCRAC membership. Opinions expressed herein are not necessarily those of the Club or the officers. Items for FEEDBACK should be in the Editor's possession by the fourth Friday of each month for publication in FEEDBACK for the following month. The Johnson County Radio Amateurs Club website address is:
<http://www.w0erh.org/>

As I'm writing the snow is coming down with 2 inches on the ground. A fire is cracking in the background with Molly curled up at my feet. A perfect winter scene. But wait it is spring according to the calendar. Spring is a time for antenna maintenance and public service events. This could be the last old man winter for this year as there is more daylight each day to warm the earth. Of course with the warming comes the potential of thunderstorms. Remember to check your stations for grounding safety.

Don W0DEW mentioned that he will be announcing, as weather permits, camp fire at the Ensor farm. Keep an ear to the repeater as the announcement could come at any time since it relies on weather that evening. The public service events that need amateur radio support return in April. Spend a few hours helping others and learn more about your radios. Volunteering is a very good way to meet other hams and learn. This is especially true if you have a new license. It is a very satisfying effort.

Do not forget to mark June 22nd and 23rd on your calendar for Field Day 2013. We will be at the Shawnee Mission observation tower again this year. Planning is underway to make this a fun and successful event once again. A quick reminder to mark your calendars for this years JCRAC campout and Auction on October 25th and 26th at Ensor. Please pass the word and start looking for auction items.
Bill KA2FNK, President

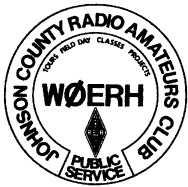
Meeting Minutes of 3/22/2013... cont'd from Pg 4

- A SATERN Communication vehicle workday has been scheduled for Saturday, March 23 at the on the Salvation Army Emergency Disaster Services, 1110 E. Truman Road.
- Olathe Marathon April 20, 2013. See Herb Fiddick NZ0F if interested.
- There is interest in having the club hold another General Class.

Business meeting adjourned at 7:57 pm.

Program:

- The program was a "Show and Tell".
- Submitted by Ted Knapp N0TEK, Secretary



QCWA

Come enjoy lunch with other hams. QCWA Mid-Continent Chapter 35 meets each Thursday at 11:00 am for lunch at Waid's, 103rd and State Line in KC, MO. Waid's is located just east of State Line and north of 103rd Street. You don't have to belong to QCWA to attend the luncheons...just drop in and enjoy the company of other hams. Mid-Continent Chapter 35 serves the Metro KC area in both Kansas and Missouri. Ron Wood KØBRO is President and JCRAC club member George Yantis KØGY is Chapter 35 Secretary and Treasurer. Starting in January 2013 QCWA publications will be on-line only as one means of reducing costs. More information on QCWA and Mid-Continent Chapter events can be found at

<http://www.qcwa.org/>

For Sale and Wanted

FOR SALE:

Name badges with your name, call letters, and QTH; top quality, engraved in a wide range of colors. For sale, 4" diameter multi-colored embroidered patches, with the WØERH call sign, for sale at \$3.00 ea. This will give the club a small profit on each patch. Contact Jim McCoy WØLQV at 913-648-4406 or w0lqv@arrl.net

WANTED: 4-post open style rack cabinet. Also looking for 15 to 20ft of 2 ga or larger insulated stranded wire or welding cable.
John KØIZ, 816-587-8204.

Ensor Museum

If you can visit the Ensor Park and Museum, just 5 minutes South of central Olathe but haven't, do it now and see a most interesting and original flashback to the mid-1900's. Our motto "SEE IT TO BELIEVE IT" is true. A site map, Ensor GPS coordinates, and much more can be seen on the website at www.w9bsp-w9ua.org/
Larry Woodworth WØHXS, Ensor Park and Museum Manager

Wheatshocker Net

The weekly Wheatshocker Net is on Thursday evenings, 8 pm on 145.29 (-). There is usually a 'meeting-after-the-net' on or about 28.475 MHz usb. The Amateur Radio Emergency Services (ARES) net is also called on 145.29 (-) at 7:00 pm local, on Tuesday.

Johnson County Radio Amateurs Club Meeting Minutes for 3/8/13

Meeting Date: Friday March 8, 2013. The meeting started at 7:30 pm. Attendance: Self-introduction with name and call sign. 35 signed the check-in sheet. This was followed by the Pledge of Allegiance. The Minutes from the February 8, 2013 were read and accepted with one opposed vote.

The Treasurer's report, as follows, was read and accepted unanimously.

Cash on Hand	\$ 405.43
Checking Account	\$ 1,435.48
Savings Account	<u>\$ 8,214.90</u>
Total	\$ 10,055.81
Repeater Operating Reserve	\$ 646.25
Memorial Fund	\$ 150.00

Old Business:

- Field Day 2013 location has changed. The Observation Tower at Shawnee Mission Park is now available. This is the same location we had last year. A planning team has met to discuss layout and things we can improve on from last year. We will not have the Sheriff's Tower this year but are checking into getting John Borzen KCØPUK's portable 40 and 50 foot towers. The dates of Field Day are June 22nd and June 23rd.
- The dates of the Ensor Auction for 2013 will be October 25 and 26.

The Club is planning a campout and Radio Merit Badge class with the Boy Scouts. Details to follow.

Meeting Minutes of 3/8/2013... cont'd on Pg 4



Meeting Minutes of 3/8/2013... cont'd from Pg 3

- Bill Brinker WA0CBW reported that both Repeaters are working fine. He suggests it's time to purchase another controller for 440 Repeater. He also mentioned a demonstration of the new controller at a future club meeting.

New Business:

- None.

Reports:

- 6 m No Report.
- 10 m SSB net 6 check-ins on March 7.
- 440 Wheat Shocker net 9 check-ins on March 6 and 18 check-ins on February 27.
- 2m Wheat Shocker 21 check-ins on March 7.
- HF Activity TX5K Clipperton Island Dxpedition. 9U4U Burundi Dxpedition (Africa).

Announcements:

- Hamclass.org graduated 31 new hams in February.
- Johnson County ARES SAR Drill March 11.
- The KCHEART program is looking for volunteers at Shawnee Mission Medical Center.
- Olathe Marathon April 20, 2013. See Herb Fiddick NZOF if interested.
- Kansas QSO party in August.
- 4 new Hams attended tonight's meeting.

Welcome.

Business meeting adjourned at 7:57 pm.

Program:

- The program was a presentation on Solar Power by John Fasbinder KDOQWM and a second presentation on "Freeze your Keys" QRP event by Rob Underwood KORU.
- Submitted by Ted Knapp N0TEK, Secretary.

**Johnson County Radio Amateurs
Club Meeting Minutes for 3/22/13**

Meeting Date: Friday March 22, 2013. The meeting started at 7:30 pm. Attendance: Self-introduction with name and call sign. 27 signed the check in sheet. This was followed by the Pledge of Allegiance. The Minutes from the March 8, 2013 meeting were read and accepted unanimously.

The Treasurer's report, as follows, was read and accepted unanimously.

Cash on Hand	\$ 395.67
Checking Account	\$ 1,430.20
Savings Account	<u>\$ 8,216.71</u>
Total	\$ 10,042.58
Repeater Operating Reserve	\$ 659.25
Memorial Fund	\$ 150.00

Old Business:

- Field Day 2013 will be at the Observation Tower at Shawnee Mission Park. John Borzen KC0PUK has been contacted about using his portable 40 and 50 foot towers. The planning team is checking into renting a large tent due to the lack of a shelter around the Observation Tower. Preliminary costs are \$300 for a 20' X 20', \$8 each for tables, and \$2 each for chairs. The planning team will assess the needs and present a recommendation to the club. The dates of Field Day are June 22nd and June 23rd.
- The dates of the Ensor Auction for 2013 will be October 25 and 26. There are several 19" equipment racks left over from the last auction that are available. See Brian Short KC0BS if interested.
- The Club is planning on being a sponsor for this year's Kansas QSO Party. Cost is approx. \$125. More details to follow.

New Business:

- None.

Reports:

- 6 m No Report.
- 10 m SSB net 3 check-ins on March 21.
- 440 Wheat Shocker net 11 check-ins on March 20.
- 2m Wheat Shocker 22 check-ins on March 21 and 25 check-ins on March 14.
- HF Activity Germany, France, Italy. 15m open earlier in the week.

Announcements:

- Don Warkentien W0DEW will be organizing campfires at Ensor this spring. Listen to the 2m net on Thursdays for dates and times.

Meeting Minutes of 3/22/2013... cont'd on Pg 2

Quick Take on the KN-Q7A QRP SSB Transceiver
March 24, 2013, by Tom Wheeler NGS
for Johnson County Radio Amateurs Club
(and published in FEEDBACK newsletter for April, 2013)

The KN-Q7A is a low-power SSB transceiver kit designed to operate within the voice portion of the 40 meter band. In assembled form, it's about the size of a paperback book and weighs just over a pound or so, so it's ideal for stuffing into a backpack for portable operation. I had access to an example of this radio skillfully constructed by Ty KD0NTY and put the radio through some simple tests on the bench to see how it really performs.



Figure 1: KN-Q7A SSB Transceiver

The KN-Q7A is a very simple, minimalist radio. As you can see, the set has only two primary controls, a *frequency* knob (which tunes a varactor-controlled variable crystal oscillator or VXO), and an *IF gain* control, which controls the overall gain of the set. There's no volume or microphone gain controls, nor is there any sort of automatic gain control (AGC). There's no S-meter. What you see is what you get! KD0NTY added an LED to show when the unit is transmitting, a nice touch.

Bench Testing

The KN-Q7A is fairly sensitive, but not anywhere near state-of-the-art. The minimum discernible signal (MDS) for the receiver is around -110 dBm (compare with -130 dBm for typical modern transceivers). Comfortable copy of SSB signals with this radio requires input of -90 dBm or greater. This is actually not a limitation, as reception of 40 meters is typically limited by the noise floor on the band, so sensitivity is not a limiting factor in practical use. The radio draws a measly 45 mA (less than a typical LED flashlight!) in receive with no signal. The VXO is stable with little discernible drift; however, a single-turn control is used to operate the VXO, so a careful hand is required for tuning.

KN-Q7A SSB... cont'd on Pg 6

Inside the Box

The KN-Q7A is a single-conversion superheterodyne radio using crystal filters for the IF, and a handful of NE-602 Gilbert cell mixer ICs for modulation and frequency conversion. Most of the IF gain is provided by the ancient but venerable MC-1350P IF amplifier chip, a staple in radios of yesteryear.

The radio uses four (!) relays for T-R switching, and uses mostly through-hole construction, with only a single surface mount transistor. The kit is not for the beginner - - careful technique is required throughout to ensure success, and many parts must be mounted in precise alignment to allow everything to fit together. The instructions encourage the builder to construct and test a single stage at a time, which is highly recommended.

An extruded aluminum case is provided with the kit, and at least the bottom must be in place to transmit, as it provides a heatsink for the driver and final PA transistors. Troubleshooting and repair can be tricky, as it's impossible to replace many parts without fully removing the board from the case - - and that entails disassembly of the front panel - - so it's best to take your time and make sure this radio is put together right when building!

Conclusion

The KN-Q7A is a very nice radio that should be an excellent backpacker's companion. It's cost in kit form is fairly minimal (around \$120), and it's also available pre-built for around \$160. This is also a radio that's ripe for experimentation and improvement due to its open design. For either purpose, the KN-Q7A is a definite bargain and should provide lots of enjoyable on-air time.

(Ed. note: Thanks to Ty KD0NTY for building the QRP SSB unit and to Tom N0GSG for the review article. A good example of a collaborative effort that every Editor appreciates. Also see Ty's Blog at <http://www.riverty.net/wordpress/> for more on this unit.)

Call it Lesson Learned

In WW2 it was a common practice on fighter planes to load every 5th round with a tracer round to aid in aiming. This was a big mistake. Tracers had different ballistics, so (at long range) if your tracers were hitting the target then 80% of your rounds were missing. Worse yet, tracers instantly told your enemy he was under fire and from which direction. Worst of all was the practice of loading a string of tracers at the end of the belt to tell you that you were out of ammo. This was definitely not something you wanted to tell the enemy. Units that stopped using tracers saw their success rate nearly double and their loss rate go down.

Choose Correct Answer!

$$7 + 7 \div 7 + 7 \times 7 - 7$$

a: 00

b: 08

c: 50

d: 56

92% FAIL THIS SIMPLE TEST!

(See Pg 1 for the answer.)