

FEEDBACK

MARCH 2018

February 9 - Show and Tell



Herb Fiddick, NZØF (left) demonstrates how he can use a modified voltage-shifter to use rechargeable batteries that came with various tools for radio equipment.

February 23 - Batteries

Jim Andera, KØNK (right) explains the characteristics of different batteries can help users select the best technology for their applications. *[Ed. -- I didn't know that there was so much to know about batteries.]*



Jim Krentzel, KEØGEY (left) attended his first JCRAC meeting with his Elmer, speaker Jim Andera. Jim became interested in amateur radio when watching his grandfather in Oregon. They communicate over the air via CW.

He thinks that the JCRAC's technician licensees should upgrade so that they can communicate with him on the general-class frequencies.

MARCH MEETINGS

March 9 -- FT-8 digital mode- Herb Fiddick, NZØF

March 23 – TBA

The Johnson County Radio Amateurs Club normally meets on the 2nd and 4th Fridays of each month at 7:30 PM at the Overland Park Christian Church (north entrance), 7600 West 75th Street (75th and Conser), west of the Fire Station.

Much of the membership travels to the Pizza Shoppe at 8915 Santa Fe Drive for pizza buffet and an informal continuation/criticism/clarification of the topics raised at the meeting ... or anything else.

LEAVE THE CHURCH, TURN RIGHT (WEST) ON 75TH. TURN LEFT (SOUTH) ON ANTIOCH. TURN RIGHT (WEST) ON SANTA FE. THE PIZZA SHOPPE IS JUST PAST THE SONIC ON YOUR LEFT.

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-> FEEDBACK <-

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Johnson County Radio Amateur Club, Inc.*

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All email addresses are available at w0erh.org

Here's the last WW1USA operation, including a number of familiar faces. Charlie Van Way, NØCVW.



PRESIDENT'S CORNER

Here it is March. The sun rises earlier and earlier each day



and the sun sets later each evening.

Having the additional daylight has been great, allowing outside work as well as

finishing up getting equipment installed in the Jeep.

We want to get early start with Field Day 2018. It is not set in stone, but we are trying to get the same location we had last year. One of the meeting in April we will have a planning session for that evening's program. In past years we have waited to the last minute to decide on Field Day dinner. If you would like to help us with this please let Jay or me know. We will also need a person to help with the rentals. As in past years we will start Field Day set up on Friday after noon.

- Bill Gery - WA2FNK

Johnson County Radio Amateurs Club - February 9, 2018

Meeting Date: Friday February 9, 2018. The meeting Started at 7:30PM.

Attendance: Self introduction with name and call sign. 40 signed the check in sheet. This was followed by the Pledge of Allegiance.

The Minutes from the January 26, 2018 meeting were read and accepted with 1 opposed vote.

The Treasurer's Report – NR.

Old Business:

- We welcomed all 1st time visitors to the meeting.
- Repeater Update – All are working well.
- WW1USA – Operated for roughly 20 hours and made 2,399 contacts during the weekend of January 27 and 28.
- Field Day 2018 – June 23 – 24.

New Business:

- Joel Meddings, KØJEM would like to hold a General Class. He is looking for 2 to 3 additional instructors besides himself. The class would be held in late May or early June. The class would take place 3 Saturday's in a row. See Joel if you are interested in helping.

Reports:

- 6 m – NR
- 10 m SSB Roundtable – 4 participated on February 8.
- 40m SSB Roundtable – 5 + Steve from Utah participated on February 7.
- Fusion Digital 440 net – 14 Check-ins on February 7 and 14 Check-ins on January 31.
- 2m Wheat Shocker net – 16 Check-ins on February 8 and 21 Check-ins on February 1.
- HF Activity – South Africa 20m phone.

Announcements:

- Novice Rig Round-Up. March 3 thru March 11. For more info go to www.novicerigroundup.com
- William Bucknell Santa Fe Trail Special Event Station May 19 -20. For more info go to www.wb0sft.org

Business meeting adjourned at 7:53 PM

Program:

- The Program for this evening was a "Show and Tell".

Johnson County Radio Amateurs Club - February 24, 2018

Attendance: Self introduction with name and call sign. 50 signed the check in sheet. This was followed by the Pledge of Allegiance.

The Minutes from the February 9, 2018 meeting were read and accepted with 1 opposed vote.

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

Cash on Hand	\$ 260.00	Repeater Operating Reserve	\$ 890.46
Checking Account	\$ 113.82	Memorial Fund	\$ 310.00
Savings Account	\$ 10,013.15	Active Members	156
PayPal Account	\$ 200.96		
Total	\$ 10,587.93		

Old Business:

- We welcomed all 1st time visitors to the meeting.
- Repeater Update – All are working well.
- Joel Meddings, KØJEM reported he has 3 individuals that expressed an interest in helping teach the General Class. The class would be held in late May or early June. The class would take place 3 Saturday's in a row. More information to follow.
- Field Day 2018 – June 23 – 24. We are looking for volunteers to organize Saturday's dinner and station captains.
- Al Rawitch, KØIMP recently updated the Silent Key Plaque that hangs at Associated Radio. 13 names were added. Al read aloud all 13 of those names.

New Business:

- "Van" Van Daveer, KØHCV wondered about renting a storage locker to store all the Club's equipment in one place. Currently Bill Brinker, WAØCBW and Bill Gery, KA2FNK have the Club's equipment taking up a lot of space in their garages and basements. Rod Rodriguez, K6TBJ reported that a 10' x 5' rents for \$86. If anyone has any storage ideas please let us know.

Reports:

- 6 m – NR
- 10 m SSB Roundtable – 8 participated on February 22.
- 40m SSB Roundtable – NR.
- Fusion Digital 440 net – 17 Check-ins on February 21 and 12 Check-ins on February 14.
- 2m Wheat Shocker net – 20 Check-ins on February 22 and 23 Check-ins on February 15.
- HF Activity – None.

Announcements:

- HamClass.org – The February class passed 32 Technician of which 4 upgraded to General.
- Ham 101 Class March 7 and April 14. See KcHamLink.org
- WW1USA May 12 – 13.

Business meeting adjourned at 7:53 PM

Program:

- The Program for this evening was a Presentation on "A Practical Look at Batteries" by Jim Andera, KØNK.

Hambone and the Boat Anchor Blues

“Yup, Unck, I don’t think I’ll ever learn that you gotta be real careful when buying used stuff at a hamfest,” moaned Hambone as he wandered into his Uncle Elmer’s shack looking for sympathy.



“What do you mean, Hammy?” asked Elmer trying to appear concerned while his attention was mostly directed towards a glazed donut and a fresh cup of coffee. “Hamfests are really just electronic flea markets and it’s always buyer beware.”

“I mean that guy whose pushing the Novice Rig Roundup event got me interested in boat anchors and how much fun they can be. He said they’re not just for old guys like you reminiscing over their youth. A lot of young guys are buying them because those rigs are simple and you can learn a lot about how radios really work. And, they are cheap.”

“I don’t know that I would call it old guy reminiscing, exactly. I’m just trying to share interesting stories that you could profit from,” said Elmer taking mock offense at Hambone’s remarks.

“Oh, Unck, I don’t mean you’re ready for a rocking chair. No, nothing like that. I just meant that guys, like me, who never were novice hams and never actually used a vacuum tube for anything, are beginning to find those old rigs interesting. There’s something cool about hot glowing tubes,” said Hammy reaching for a chocolate donut with sprinkles.

“Okay, nice save. So, why are you here, other than for a free donut?”

“Last weekend I went to a hamfest and bought a National NCX-3 transceiver with it’s NCX-A power supply. I thought this would be good start for my boat anchor collection. At least that’s what the Novice Roundup guy said. These things date back to the 1960s.”

“He’s right. Those are good little rigs. Lots of little quirks, but really fun to operate. That is a good start.”

Well,” continued Hambone. “The rig looked pretty good, considering its age. It had all its tubes and the knobs all worked and it wasn’t rusty or dented. The guy said it worked and he even had a copy of the manual.

When I got home and tried to check it out, I discovered that it did not work. The tubes lit up, but that was about it. I was pissed. I began to feel like I had been taken and I was sure of it when I started to check some voltages.”

“You probably were taken. But putting that aside, testing voltages is a good place to start,” said Elmer. “The first step in any troubleshooting is to get the power right.”

“I remember you told me that and that’s what I did. The voltages in the power supply were way off. I would have tested all the tubes first but, I don’t have a tube tester and

you weren’t home and the door to your shack was locked.”

“How far off is way off?”

“Sorry, Unck, I know you only like numbers. The high voltage that should be about 700 volts was actually 1189 volts. The low voltage should have been about 280 volts but really was 483 volts and the bias supply which should have been negative 80 volts was negative 182 volts.”

“You’re right, Hammy, that’s way off.”

Hambone continued, “I opened up the power supply and that’s when I got a big surprise. The only part of it that was original National NCX-A was the case. Inside it was some sort of home made thing that didn’t match the schematic. The seller had kluged together three transformers, one to supply high voltage and low voltage, another one to supply the bias and a third for the filaments. The real schematic in the manual shows two chokes in the power supply. This power supply has none. Only the filament transformer was the right voltage. It’s a mess.”

“I see you brought it with you, let’s have a look,” said Elmer as he hoisted the heavy components on to his bench.

“You’re right, this power supply doesn’t even resemble the manufacturer’s schematic. I don’t think this transceiver ever worked very well – if at all - with this power supply.”

see HAMBONE on page 6

from HAMBONE on page 5

“Are you sure, Unck? The guy said it worked fine.”

“Did you change the bias pot in the power supply?” asked Elmer.

“No, I just turned the rig on and messed with the front panel controls. When it didn’t work, I measured the voltages and brought it over here.”

“I don’t see how it could have worked,” said Elmer. “With that much negative bias voltage the transmitter would never transmit. The output tubes are biased completely off.”

“I guess I’ve been screwed,” moaned Hambone. “With all those high voltages, I bet every part in the rig is fried.”

“Maybe, maybe not. Let’s look it over. Ah, yes. There it is, a 0A2 voltage regulator tube. Did this tube glow when you had the rig turned on?”

“Oh, it sure did! I think it’s some kind of a pilot light. It glowed a very bright sort of purple and got very hot.”

“That’s not a pilot light,” Hammy. “It’s a gas filled voltage regulator tube designed to hold a constant 150 volts across its terminals.”

“I’ve never heard of a gas-filled regulator tube, what does it do?”

“It’s a bit like a Zener diode in that it tries to keep a constant voltage across its terminals. It has no filament. The unregulated voltage applied to its terminals causes the gas inside to ionize and glow. The

gas in this tube is argon and it is designed to hold about 150 volts across its terminals.”

The glow showed that it was working and keeping that very high, low voltage from reaching the rest of the transceiver. But, under normal operation, the glow is not very bright and the tube only gets warm.”

“That means there’s still hope for this old rig?” asked Hambone starting to smile again.

“Yes! Let’s check the tubes and replace those two old electrolytic capacitors and slightly charred resistors connected to the 0A2. Then, let’s try the radio.”

“But Unck, won’t this old power supply still damage the radio?”

“No, because you are going to replace it. Over there is a junked NCX-A power supply. The case looks terrible, but inside it’s fine. Your job – as a new antique radio restorer – is to replace the insides of your power supply with that other one. I bet it will work just fine.

You can use that wheel barrow over there to carry all this stuff home.”

With that, Elmer grabbed the last donut and walked out of his shack in pursuit of another cup of coffee.

* * *

A few days later we find Hambone back at Elmer’s shack with his NCX-3 transceiver in tow.

“Unck, Help”

“What’s the problem, Hammy, old world radio got you down?”

“Well, yes. The radio receives fine and phone works pretty well, too. But most people who I contact with CW say I’m chirpy. I’m not sure what that is, but I think it’s bad.”

“It’s bad,” replied Elmer. “Chirp is what you get when your transmitter changes frequency slightly when you key it. Many old rigs chirped because of poor voltage regulation. If the VFO’s supply voltage dropped by even a couple of volts when you pressed the key, it changed the transmit frequency slightly and the far end heard that as a chirp.

Let’s hook you up and have a listen.

Yup, you chirp all right. Let’s replace that voltage regulator tube and see if that helps. I know, it checked ‘good’. But sometimes tube testers lie when testing gas-discharge tubes.”

Elmer let Hambone open up the rig, remove and replace the 0A2 regulator with a new one. Then operate the rig again.

“You fixed it, Hammy! The chirp is gone.”

“Yeah, thanks Unck. I’m gonna use this rig in the Novice Rig Roundup. It is a lot of fun working with these old radios. I may be looking for more at the next hamfest.”

>> **JCRAC FEEDBACK** <<<