JOHNSON COUNTY RADIO AMATEURS CLUB, INC. P.O. Box 93 Shawnee Mission, KS 66201

FEEDBACK

FEBRUARY 2018

JCRAC Gets an Introduction to DMR



JCRAC member **Tom Wheeler**, **NØGSG** and Back Yard Repeater Group member Chuck Kraly, KØXM, introduce Digital Mobile Radio to a full house of members and visitors. First timers at the meeting included:



Dave Atkins



Ed O'Connor



Jeff Nyberg, KBØTVC



Mark Peterson, KDØSZC

FEBRUARY MEETINGS

February 9 -- Show and Tell: Bring in some ham equipment and tell its story ... or make one up February 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. Pizza Shoppe is just past the Sonic on your left.

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Roy Timberman, W1RMT

>> THE FEEDBACK <<

A publication of the Johnson County Radio Amateur Club, Inc.

Bill Gery, KA2FNK, President Jaimie Charlton, ADØAB, Vice President Ted Knapp, NØTEK, Secretary Cal Lewandowski, KCØCL,Treasurer / FEEDBACK distribution

> Chip Buckner, ACØYF, Editor Charlie Van Way, NØCVW, Photography Deb Buckner, KDØRYE, Contributing Editor

All email addresses are available at w0erh.org

Resolution: Try Something New

Each year, your Editor --after announcing that the key to keeping a resolution is a public announcement--resolves to do something in the coming year. Specificity has not worked. Rather than select something from his list of failed resolutions, he resolves to do "something new".

At the Re-enactment

As usual, Jaimie Charlton has woven a bit of physics into an entertaining story. Your editor can't match the engineering or the imagination, but he does have a "reenactment" story and can't resist this opportunity to inflict it upon the membership.

For reasons best shared at a post-meeting pizza gathering, a Florida real estate developer decided that I needed to attend a reenactment of the Battle of Perryville in Kentucky. If I would attend, he would provide me with a horse, a Confederate officer's regalia and a place riding as a staff officer with the Confederate command. Figuring that this was an adventure I was not otherwise likely to have, I said "sure".

At the appointed time, I appeared. As the aide assigned to me assisted me onto a horse, an experienced re-enactor--a purist--objected to my attire. "Wouldn't a staff officer be carrying a saber?", he asked.

"Why, yes. Yes, he would", my aide replied. "But I decided he shouldn't carry one."

"Why not?" challenged the interrogator.

"Because if he is not carrying a saber", my aide--who exhibited a keen understanding of my limitations--replied, "he will not hurt himself with that saber", which explanation silenced the purist and earned my aide my deepest respect, affection and gratitude.

PRESIDENT'S CORNER

Did you get all the tasks you wanted to do completed in



January 2018? You know the ones--the tasks that required a "blue Moon" to get accomplished. This past January was your

opportunity. The lunar eclipse coupled with a "super moon" on January 31 was great to witness. I watch the event from the parking lot at the office.

Our second January meeting gave us a good list of program ideas for 2018. We will be working to line up presenters for these programs. If the program was your suggestion, we may be asking you for your assistance.

Every new year renews the need for volunteers for the public service events. Larry's List is your best source for the dates of these events. Select a couple to support and contact the event ham coordinator. Volunteering for these events is a great way to increase your skill as an Amateur radio operator, serve the community and have fun.

- Bill Gery - WA2FNK

Johnson County Radio Amateurs Club - January 12, 2018

Meeting Date: Friday January 12, 2017. The meeting Started at 7:30PM.

Attendance: Self introduction with name and call sign. 41 signed the check in sheet. This was followed by the Pledge of Allegiance.

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

Cash on Hand	\$ 260.00	Repeater Operating Reserve	\$ 871.46
Checking Account	\$ 143.82	Memorial Fund	\$ 310.00
Savings Account	\$ 10,008.83	Active Members	149
PayPal Account	\$ 167.06		

PayPal Account \$ 167.96 Total \$ 10,580.61

Old Business:

- We welcomed all 1st time visitors to the meeting.
- The Ensor Auction raised a total of \$1,548. This amount was split between the Club and the Museum.
- Repeater Update All are working well. The 443.725 MHz analog repeater was placed back on top of the Black and Veatch build and is back on the air. Work continues to upgrade and make better the Yaesu Fusion Repeaters in the Kansas City area.
- WW1USA January 27 -28.
- The Mo-Kan Regional Council of Amateur Radio Organizations will be sponsoring the 2020 ARRL Midwest Division Convention. More information to follow.

New Business:

• Al Rawitch K0IMP has offered to update the Silent Key Plaque that hangs inside Associated Radio. Thank you Al!

Reports:

- 6 m NR
- 10 m SSB Roundtable 5 participated on January 11.
- 40m SSB Roundtable 5 participated on January 10.
- Fusion Digital 440 net 19 Check-ins on January 10 and 17 Check-ins on January 3.
- 2m Wheat Shocker net 29 Check-ins on January 11 and 21 Check-ins on January 4.
- HF Activity NR

Announcements:

• US Amateur Radio Bands Mouse Pads for sale \$5.

Business meeting adjourned at 8:04 PM

Program:

• The Program for this evening was a Presentation on Introduction to DMR with a Q&A session.

Johnson County Radio Amateurs Club - January 26, 2017

Meeting Date: Friday January 26, 2018. The meeting Started at 7:30PM.

Attendance: Self introduction with name and call sign. 32 signed the check in sheet. This was followed by the Pledge of Allegiance.

The Minutes from the January 12, 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 January 27 28.
- Field Day 2018 June 23 24.

New Business:

- John Raydo, K0IZ presented to the Club the idea of doing a Kit Project. See the February 2018 FEED-BACK newsletter for additional information about the potential Kit.
- Jack Holzer, W0YZF of the Johnson County Sherriff Dept. is retiring from the Department. Jack has been instrumental over the past years with the donation of equipment to the Ensor Auction.

Reports:

- 6 m NR
- 10 m SSB Roundtable 5 participated on January 25.
- 40m SSB Roundtable 5 participated on January 24
- Fusion Digital 440 net 21 Check-ins on January 24 and 16 Check-ins on January 17.
- 2m Wheat Shocker net 21 Check-ins on January 25 and 25 Check-ins on January 18.
- HF Activity Bahamas on 160m CW, Hawaii on 160m and 80m CW, Lima Peru using FT8.

Announcements:

• None.

Business meeting adjourned at 7:56 PM

Program:

• The Program for this evening was an idea session around potential Programs for 2018.

Hambone and the Reenactment A Hambone Story by Jaimie Charlton, ADØAB

"This was not a very bright idea driving through these weird woods. It's starting to get dark and we're

lost and you know it," complained Dude as his friend Joey did his best to pilot his electric Nissan Leaf along a narrow gravel road in rural Georgia.

"Dude, you liked that Civil War reenactment

campsite back there. This is the real Civil War South. Heck, you bought more "genuine artifacts" than the rest of us put together. I think you've been had," said Joey. "Those 'genuine Confederate brass shell casings' and your 'genuine Civil War toilet paper' look pretty fake. Besides, if you hadn't spent so much time listening to that bluegrass band and buying all their CDs we'd be driving in daylight now."

"Quiet down, boys," soothed Dude's uncle Elmer. "Dude, Why don't you kick back and take a nap like Hambone in the back seat and let Joey drive. This is a tough road and we're all a little tired and hungry. We'll find a nice hotel in the museum town the guy at the reenactment said was just up ahead and spend the night there."

"I hope we get there pretty soon, we're running low on battery—less than ten miles left—and this road is awful dark," observed Joey.

"What do you mean, 'less than ten miles left'?" asked Dude with renewed sarcasm.

"I mean that 'ten miles left' is the last mark before empty on the battery charge guage and the pointer has been on it for some time. "You said we had a full charge this morning and that was good for about 120 miles. We haven't gone

half that far.
What's wrong?"
"Nothin's wrong,"
snarled Joey,
losing his
patience with
Dude's implied
accusations.

"You've been playing those stupid CDs for the last several hours and you keep turning the A/C up full. Those things take power, you know. It's you, not the car, that's sucked the battery dry!"

"Dude, Joey, look just a ahead," said Elmer, trying to change the subject. "Lights and I think I hear voices. That must be the town."

"That's good because the car's just gone to turtle mode which means it's about dead," said Joey as he pulled to the side of the road.

"We'd better walk from here until we find a power plug to recharge."

"Just look at the old buildings, this place is a museum," said Elmer.

"Yeah, and look at the people most of them look like soldiers. They've really gone all out with this reenactment thing. I guess those gray uniforms mean this is a Confederate town," said Dude.

"No kidding," said Joey. "We're in Georgia. This is the South, even now. Look, here comes a guy in a soldier uniform."

"Good afternoon, gentlemen. What brings you to our little town?" He asked, smiling and tipping his broad-brimmed hat.

"Good afternoon, sir," replied Elmer trying to fit in. "We were visiting the reenactment up the road a bit and they said if we're interested in history, we must not miss your museum town. It looks fantastic, so realistic. Could you tell us where we might find a hotel? We're tired and could use a good meal."

"Well, there's a boarding house 'bout a quarter mile up the road. My men have taken over most of the rooms, but they may be able to put you up. Meals aren't too good. Food's scarce here 'cuz of the war. But they probably have some mule and hardtack.

Say," continued the soldier, "How'd you get here, walk?"

"Oh no," piped Joey. "We came in my new Nissan Leaf, its electric."

"What's a Nissan Leaf?" asked the soldier. "Some kind of a horse?"

"It's a car, parked back there around the bend. It runs on electricity, but its battery is nearly dead so we need to charge it at the hotel, er, boardinghouse."

"Car, battery, I don't know what you're talkin' about. By the way, where's your uniforms? Boys your age should be fightin' for the cause instead of lookin' like a circus."

"Oh, wait, mister. We're not part of the reenactment," interrupted Elmer.

"No, you wait, mister!" said the soldier. "I was speaking to the boy. And, whenever you address me you say 'Sir' or 'Lieutenant', got that?"

"Yes sir, lieutenant, sir," stammered Elmer, taken aback by the sudden brusqueness. "We're not part of this event. We're visitors passing ..."

"Lieutenant, lieutenant," shouted a soldier running toward the group pulling a groggy Hambone along.

see HAMBONE on page 6

from HAMBONE on page 5

"Sir, I found this guy hiding in that weird wagon back there."

"I wasn't hiding, I was sleeping," said Hambone still not quite aware of what was going on.

"Good work, Sergeant."

"Sir," continued the sergeant,
"Could these be the four spies that
shot ol' Josh yesterday? I hear tell
there was four of them and these
guys dress funny and talk funny.
They ain't from around here."

"You're right, Sergeant. They're not from around here. Take them to the brig for questioning. If they're spies, we'll hang 'em and if they killed old Josh, we'll hang them anyway."

Later, in the brig . . .

"I don't know what's going on here, boys but this isn't a game. That body in the wagon looked very dead and the bars on this jail are real and the door is locked," said Elmer.

"Yeah, and I saw some of those guys loading their guns with what looked like real gunpowder and lead balls," added Joey.

"Stand up and step away from the door," ordered the Lieutenant as he and his sergeant barged into the room. "Let me in the cell, sergeant.

I'm gonna question these guys and find out what they're doing here."
"Do as he says, boys," whispered Elmer. "But don't say anything, let me do the talking."

In the cell, the lieutenant continued. "You boys are in big trouble. There are witnesses that saw four men dressed funny running through the woods, right after Josh was murdered. The jaw is that they are spies and you are them. Are you? Don't lie, we hang liars, too."

"We're not spies and we're not liars and we're certainly not murderers," emphasized Elmer, a tone of desperation creeping into his voice. "We're visitors, tourists, nothing more. My name is Elmer, these are my nephews Hambone and Dude and their friend Joey. Can't you check us out with your command headquarters, sir?"

We need more than your names, fella. Where're you from? You dress funny and talk like Billy Yanks, said the lieutenant."

"We're not Billy Yanks, we're from Kansas," blurted Dude.

"Oh, Jayhawkers, eh? You're almost as bad."

"Dammit Dude, shut up!" snarled Elmer under his breath.

"Sir, Lieutenant Sir," continued Elmer, "Please, just check us out. You'll see we're just visitors from Kansas."

"Sorry, no can do. The telegraph to Atlanta has been down for the last few days. It never was very good and now it's dead. I could send a letter, but it will take a couple of days there and back. The jaw among the troops is that you're the spies that killed Josh and they want a hangin' and they want it now."

"Wait, wait!" said Elmer as the lieutenant got up to leave. "What's wrong with the telegraph? We know something about telegraphs and maybe we can fix it."

"Obie, the telegrapher, thinks the battery's gone weak. Says he needs new zincs. But, I can't let Yankee spies mess with our telegraph. You might wreck it," said the lieutenant. "How can we wreck it? You said yourself it hasn't worked for days. We can't make it worse. Besides, you already have us in jail. Just let us have a look at it," argued Elmer.

"Well, okay, you can have a look. But you will be shot if you try to escape.

"Sergeant, take these guys to the telegraph office, it's in the back of the food larder. But don't let them out of your sight. Oh, and call Obie to come over," ordered the lieutenant. "Wow, Unck," exclaimed Hambone now recovered from his groggy daze. "Look at all these old relays and switches! And look at that rack of pickle jars over there, how weird is that?"

"Now hold on there, boy! This here is the newest and latest office and no Jayhawker spy gonna tell me different!" spat Obie. "Besides, those ain't no pickle jars, that's a right powerful battery."

"Oh no, you're right, mister Obadiah, sir, he's just a boy and doesn't know what he's looking at," soothed Elmer.

"Tell me, what's the problem?"

"Okay, but I don't want to hear no more from him," said Obadiah pointing at Hambone.

"This here little battery is the local battery and it is still good. See? If I work this here relay by hand the sounder clicks nice and loud, just like it should. But, if I press this key, which is on the main line, there's no clicks like there used to be. I think the main battery's gone weak. It's that rack of jars over there."

"Could the main line be down or somebody's switch be open?" asked Elmer.

"Oh no. Every once in a while I hear a click on the main line, but no good messages. That means the loop's okay. I'm pretty sure it's just the battery," explained Obadiah.

see HAMBONE on page 7

from HAMBONE on page 6

"You can see the zincs are almost all eaten up and need to be replaced. But, without these zincs, I don't have enough power to order more zincs from Atlanta."

"How many volts should this battery provide?" asked Elmer.

"I don't know volts, but this here's a big battery with 121 cells. We need that much because the wire is more than 100 miles long."

"Unck, how does this telegraph work? Why does it need such big batteries?" asked Dude.

"A telegraph main line is a big series circuit with the batteries, keys, and relays at each station all connected in one big loop," explained Elmer as he sketched a quick drawing on the message pad.

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SOUNDER

taps a sequence on his key - to attract the attention of the other operator and re-closes his key switch. The far end operator replies by opening his key switch and taps an answer telling the first operator to send his message. He then re-closes his switch."

"I get it," said Dude, "the key switch is like push-to-talk, except it's close-to-listen. And the battery voltage is so high because it's pushing current through a 100 mile long wire and 100 miles of dirt. So, if Obie is right, we need to fix his battery or find a couple of hundred volts to use instead."

Joey added, "Good luck with that in this awful place."

"Cheer up, boys," said Elmer. "A couple of hundred volts is just down the road in Joey's car battery. It has

KEY

100 mile

connect the car to the office backwards we might blow something. What should we do, flip a coin?"

"No need to flip a coin," said Elmer.
"Obie, please grab one of those potatoes over there and cut it in half."

"What the..." said Dude. "You gonna have a bite to eat?"

"No, Dude, be still and learn. You just stick the two wires from the office battery into the potato and watch, like this."

Elmer pushed the wires into the potato and waited. In a few seconds, the space around one of the wires turned green. "See boys, the green indicates that's the negative lead. So, we just connect the car's negative lead to the relay and the positive lead to the ground. Okay, Obie, now try it."

"Hey, it works! That's Atlanta answering us! Lieutenant, Lieutenant, come here," shouted Obie.

But just as the Lieutenant opened the office door a mob of angry soldiers pushed in shouting, "We ain't waitin' no

more. We're gonna hang these Jayhawker spies and now. They gonna pay for killin' Josh."

Ropes appeared around their necks and the mob dragged Elmer and the boys to their newly constructed gallows.

"Stop, stop, we're not spies!" shouted Hambone thrashing about.

"Hammy, wake up, wake up! You've been dreaming. We've arrived at the hotel. They've got everything, even a free charging station for the car. Grab your bag and let's check in," said Elmer.

about 360 volts fully charged, so it must have 150 maybe more still in it even now.

g "Sir, Lieutenant sir," called Elmer. "I

LELA-/

"Sir, Lieutenant sir," called Elmer. "I think we can fix your telegraph, but we need our funny carriage. Can you help us push it over here next to the office?"

Grudgingly, the lieutenant assigned a couple of grunts to help with the car while Joey and Dude helped Obie with a coil of copper wire from the back room. The boys then set about connecting two strands of wire from the car's positive and negative terminals to the telegraph office.

"Hold it, guys," said Hambone. "We don't know which terminal is positive on this office battery. If we

"Here's two stations connected together through a single 100 mile long wire. The ground is the return path. When both stations are standing by, the key shorting switches are both

path. When both stations are standing by, the key shorting switches are both closed and current flows from the main batteries – which are in series – through the relays and back to the batteries. The whole path loop is 200 miles long with half of it being

through the ground.

"Since the relays at the two stations are energized, current from the small local batteries energizes the sounders. This is the way the system sits until one end wants to send a message. When one end has a message to send, the operator opens his key switch, which breaks the main loop current and crops out both relays. He then

>> JCRAC FEEDBACK <<

Raydo Proposes a QRP CW Kit as a Club Project



Kansas City Radio Amateurs Featured in QST

The February 2018 QST magazine features three articles on Kansas City hams and their activities.

Page 20 features a full-page spread on last September's "Scouting 500 Event at Kansas City Speedway". The article notes that 11,000 youngsters attended the event, with one of the biggest attractions being radio contact with the International Space Station during a flyby.

Pages 71-74 covered WW1USA's on-going commemoration of the centennial of events occurring during World War I. The article emphasized that Kansas City had a number of amateur radio clubs that catered to a variety of interests, the clubs came together to draw attention to the centennial and to the National World War I Museum.

John Raydo points out that "former long-time" JCRAC member John Ellis, NP2B (formerly KØMMI) is a regular contributor to the "Classic Radio" column. His article on "The Shure 55 Microphone" spans pages 84 and 85 of this "Kansas City edition" of ARRL's flagship publication.

John Raydo, KØIZ came across a project he thought might interest club members. The January issue of RadCom (Radio Sociey of Great Britain) featured what John calls "a most amazing single band CW transceiver". The kit--introduced at the RSGB "Youths On The Air" summer camp in August 2017--consists of a 3" x 4" circuit board with two pre-soldered SMB parts. The rest of the kit consists of through-hole soldered parts.

John lists the specs as:

- 5 watts on your choice of 80 through 17 meters
- stable frequency synthesizer and digial display
- two VFO's for split operation
- 250 Hz selectivity
- 16 frquency/12 message memories
- iambic keyer, CW sidetown and CW decoder
- full or semi break-in
- built in digital voltmeter, RF power meter, frequency counter and signal generator (to 200 MHz)

in a \$49 kit. More information is available at www.qrp-labs.com/qcx.html or www.youtube.com/watch? v=A0BkDoVcQr