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

FEEDBACK

APRIL 2020

March Meetings

March 13

One of the responsibilities of an ARRL Technical Specialist, per the ARRL website, is to serve as a technical advisor to local hams and clubs and to speak at local clubs on popular technical topics. Technical Specialists work under the direction of the ARRL Section (State) Technical Coordinator.

Rather than delegate the responsibility to a subordinate Technical Specialist, Kansas Technical Coordinator and JCRAC member Bill Brinker, WAØCBW, (above) took it upon himself to conduct a question and answer session on Fusion radio tips and technology at the Club's March 13 meeting.

March 27

By March 27, most of the Kansas City metropolitan area was subject to one of several stay-at-home orders. Even before the orders went into effect, the Overland Park Christian Church informed the club that the church would not be available to outside groups until at least mid-May.

The first thought was to use the Club's 145.290 MHz repeater to conduct an on-air meeting. The technically savvy pushed, instead for a video conference over the newly popular Zoom Video Communications software.

In addition to the regular business meeting, members experimented with the Zoom software and, once it was working, conducted a roundtable session with 33 participating club members each offering comments about their, the community's and the world's situation.

APRIL MEETINGS

April 11 *-- On-line via ZOOM. Speaker to be announced*

April 25 *– On-line via ZOOM. Speaker to be announced*

The Johnson County Radio Amateurs Club normally meets on the 2nd and 4th Fridays of each month at 7:00 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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A publication of the
Johnson County Radio Amateur Club, Inc.

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PRESIDENT'S CORNER

I hope all are doing well handling the current situation we find ourselves in. Follow the guidelines. Stay at home unless necessary. If you have to venture out, be mindful of keeping distance from other people and washing your hands.

Thanks to Herb Fiddick, NZØF, for keeping us all connected with coming up with some very imaginative "Ham" activities. Also thanks to all that are joining the "virtual" breakfast club net Monday through Friday on the 145.29 repeater. If you have time join us on this net which begins at 9:00 am

We had a good a jump with Field Day 2020. We already have the permit for the same location as last year in hand. Just this week ARRL posted an article about the virus impacting Field Day. It appears that the rules for 2020 field Day are being reviewed. At this writhing is looks like some form of remote operations may be permitted. We will have to see how this developed.

The Club normally provides volunteers for Ensor museum for the weekends in May. At this time it is unsure that the museum will be open. So standby.

From the positive feedback we received form the "Zoom" club meeting I think we will continue using that tool. We are plan to add programs to the virtual club meeting.

– Bill Gery – WA2FNK

Johnson County Radio Amateurs Club - March 13, 2020

Meeting Date: Friday March 13, 2020. The meeting Started at 7:00PM.

Attendance: Self introduction with name and call sign. 26 signed the check in sheet. This was followed be the Pledge of Allegiance.

The Minutes from the February 28, 2020 meeting were read and accepted unanimously.

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

Cash on Hand	$ 90.00	Repeater Operating Reserve	$ 1,567.83
Checking Account	$ 473.72	Memorial Fund	$ 310.00
Savings Account	$ 13,311.62	Active Members	147
PayPal Account	$ 47.95		
Total	$ 13,923.29		

Old Business:

- We welcomed all 1st time visitors to the meeting.
- Repeater Update – All are working well.
- Field Day 2020 – This year's Field day will be June 27 – 28. We have again secured the Old Hutton Farm at Shawnee Mission Park. This is the same location we had last year.

New Business:

- None.

Reports:

- 6 m – NR.
- 10 m SSB Roundtable – 5 participated on March 12 and 5 participated on March 5.
- 40m SSB Roundtable – 1 participated on March 11.
- Fusion Digital 440 net – 14 Check-ins on March 11 and 13 Check-ins on March 4.
- 2m Wheat Shocker net – 14 Check-ins on March 12 and 17 Check-ins on March 5.
- HF Activity – Cape Verde 20m SSB.

Announcements:

- WW1USA May 9-10 Outside.
- See Larry's List for upcoming Events.

Business meeting adjourned at 7:35 PM.

Program:

- The Program for this evening was a Question and Answer Session on Fusion by Bill Brinker, WAØCBW.

Submitted by Ted Knapp, NØTEK, Secretary.

Johnson County Radio Amateurs Club - March 27, 2020

Meeting Date: Friday March 27, 2020. The meeting Started at 7:00PM.

Attendance: Due to COVID-19 restrictions, this Meeting took place online using Zoom Video Conferencing. 33 were present.

The were no Minutes available from the March 13, 2020 meeting.

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

Cash on Hand	$ 90.00	Repeater Operating Reserve	$ 1,578.83
Checking Account	$ 437.72	Memorial Fund	$ 310.00
Savings Account	$ 13,311.62	Active Members	148
PayPal Account	$ 132.49		
Total	$ 13,971.83		

Old Business:

- Repeater Update – All are working well.
- Field Day 2020 – This year's Field day will be June 27 – 28. Ice Cream Social possibly the Friday before Field Day - June 26th. This will also be a Meeting night. We had a issue last year with the chairs under the tents sinking into the mud. A suggestion was made to either put plywood under the chairs or locate the tents to more solid ground like the cement/gravel driveway. Concerns around COVID-19 may impact Field Day especially around sharing headphones and microphones. We will monitor the situation and address sanitation of radio equipment. More to come.

New Business:

- We did a roll call of each online/call-in participant and had them make comments.

Reports:

- 6 m – NR.
- 10 m SSB Roundtable – 5 participated on March 26.
- 40m SSB Roundtable – 3 participated on March 25.
- Fusion Digital 440 net – 16 Check-ins on March 25.
- 2m Wheat Shocker net – 18 Check-ins on March 26.
- HF Activity – Europe 20m CW, FT8, SSB, and AM.

Announcements:

- Everything Canceled.
- Breakfast Club meeting not in person but on the 145.29 MHz Repeater at 9:00 am.
- WW1USA May 9-10 Canceled However a few will conduct the events from home.
- For up to dated information on COVID-19 go to www.cdc.gov
- See Larry's List for upcoming Events.

Business meeting adjourned at 8:35 PM.

Program:

- No Program. We just wanted to figure the Zoom Video Conferencing platform.

Submitted by Ted Knapp, NØTEK, Secretary.

A Hambone Story by Jaimie Charlton, ADØAB

Hambone Faster than Light

Readers:

It is spring break at Hambone's school and because of that, there are no classes and most of the frat boys have gone to enjoy the beaches in Florida.

The day before break started, professor Flask invited a friend of his to speak to the students. Unfortunately, this very important lecture was sparsely attended due to the fact most of the students were already gone. For that reason, I am reprinting the unedited transcript here.

"Good afternoon, class. As you may know, our university is on the leading edge of research that explores electromagnetism and its origins. Yes, that means there's more to radio waves than we cover in our engineering classes and even more than the ham radio club covers in their antenna design seminars which seem to use a lot of small aluminum kegs these days.

Today, we are lucky to have as our guest, professor Lei Dennis Jar who leads the research in our electromagnetics project. He has some interesting stories to tell and some new discoveries that haven't hit the news, yet.

Without further ado, Professor Jar."

"Thank you, Erly, er, Professor Flask. It's my pleasure to speak to your class and report on some new and very interesting discoveries. Lately, we have been exploring the possibilities of sending messages faster than light speed.

You can put your hands down, I know that would seem to fly in the face of Einstein's Theories of Relativity, but it really doesn't. Einstein's theories deal with light propagating through free space, we are investigating something different, although we are not sure what it is just yet.

We got started on this line of research while we were evaluating radio signals, or lack thereof, from space. It has long been assumed that there are a lot of intelligent species on other planets orbiting other stars with the capacity to send and receive radio signals, yet we haven't heard any. Some of you may recognize this as the Fermi Paradox.

That seems strange to us because as a planet, Earth has been radiating some sort of radio waves for just under 100 years and we have been really hot, electromagnetically speaking, for the last 50 years. According to some astrometric estimates, there are about 1,400 star systems within 50 light years of the earth. If only a few of them have inhabited planets - which is still a lot of planets - where's the radio chatter?

Given the great distances between star systems, radio waves, even going at the speed of light, are too slow for meaningful communication. Consequently, we asked the question, is there a faster means of transmission? It seems there is. It's called *entanglement*.

For those who are not up on their quantum physical effects or their science fiction literature, entanglement is what Einstein referred to as "spooky action at a distance". Basically, if you create two subatomic particles such as electrons or photons so that they are entangled and then let them go their separate ways, certain changes you make to one will instantly be reflected in changes in the characteristics of the other. This effect has been shown to be present at distances of hundreds of kilometers between the particles."

"Professor, professor!" shouted a student in the back row waving his hand violently.

"Aren't the photons just going at the speed of light?"

"Good question, young man. Yes, they are. But the effect on one due to changes in the other is, as far as we can tell, instantaneous regardless of the distance between them. So, we want to know how they do that.

One of the possibilities we are investigating is that the particles, we are actually using electrons because we can trap and hold them in a magnetic field, communicate through a medium other than empty space. This would be a medium in which either permittivity or permeability or both are zero, or nearly so. So, where is that? You might ask.

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To answer that we must go back to the big bang. Current cosmological thinking is that about 13.7 billion years ago the universe burst into existence in an event called the big bang. According to that theory, the universe grew from the size of a proton to about the size of a softball in way less than a trillionth of a second. That very brief period is called *inflation*. The interesting thing is that to accomplish that growth, space, or space-time as Einstein called it, had to expand or move faster than what we now call the speed of light. We are calling the condition that existed before the big bang the *void* and the universe is still expanding into it.

It appears that the current speed of light is not the ultimate speed limit. It is just a number that is determined by the permittivity and permeability of the free space we are living in. In the void, we think those values are nearly zero meaning that the speed of light – in the void - is nearly infinite. It is in the void where we think interplanetary communication is taking place."

"Sir?" asked a young lady in the front row and the only lady in the room, "Do you have any proof that the void exists and communication is taking place in it?"

"My answer is no and yes. What I mean is we have no solid evidence of the existence of the void. We do know that the universe is still expanding and it must be expanding into something. And, we do know that entangled electrons seem to communicate with each other instantaneously, much faster than the speed of light in ordinary space would allow.

But yes, we believe we have intercepted what seems like coherent communication of some kind. Let me explain.

There are two main problems that must be solved to actually send and receive messages through the void. The first problem is actually getting some sort of signals into and out of the void and the second is interpreting what has been received.

For our signaling apparatus we chose an old Yaesu FT950 transceiver because we had one in the supply room. The problem was an antenna.

In normal free space the size of an antenna is determined by the wavelength of the signal being sent and received. That wavelength is determined by the speed of light. In the void, the speed of light is presumed to be infinite or nearly so which makes for an antenna of nearly infinite size. Besides the enormous size, how would we get it into the void? In fact, where is the void? This is where the entangled electrons come in. We think they are somehow able to send signals through the void.

To test this theory, we launched two entangled electrons and captured them in two magnetic energy wells. Energy wells are sort of like magnetic jails for electrons. The captured electrons are destined to spiral around magnetic lines of force indefinitely because they do not have enough energy to climb out of the well. Hence, the name energy well.

Our first procedure was to verify that the two electrons, each being held captive in its own energy well, were entangled and linked together. To do this, we wiggled the magnetic field of one electron and observed a similar wiggle in the other. That means that they were entangled and we could proceed with our experiment.

We set up our transceiver so that the transmitter's RF wiggled the magnetic field holding the first electron and the receiver sensed changes in the second electron. At first, we just listened on various frequencies and heard only noise. Part of that noise was due to the fact that the electrons kept escaping from the energy wells and part of it was random noise on the twenty-meter ham band.

But as we refined our magnetic cells and greatly improved our RF shielding, coherent signals seemed to emerge. We filtered and cleaned up the signals, but couldn't make head or tail of them. Maybe they weren't signals at all, but some local noise getting into the system. Then our luck changed.

Professor Flask came into our lab while we were puzzling over the mystery signals. We explained that they didn't look exactly like noise, but we could not make head or tails of them. Professor Flask observed that they looked a little like the old five-bit radio teletype or RTTY code used to send text back in the 60s.

None of us had heard of a five-bit code, but professor Flask, being in the cocktail hour of his life, remembered it well. To check this out, he helped us move an antique model 15 teletype machine with its mechanical decoding mechanism from the school's museum to our lab and set it up.

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from HAMBONE on page 6

With a little oil here and there in its mechanical decoding mechanism, the old machine started clicking and clacking and faded blue letters began to appear on its paper. Most of the letters were gibberish, but we did see *C_NCORD_, B_ATLES AND NIX_N* appear. One of us recognized that these word fragments could mean *concorde*, a supersonic jet liner, the *Beatles*, a singing group from England and *Nixon*, then president all from the 1960s. We were thrilled. Professor Flask was right and we were onto something. We hooked up the keyboard to our little transmitter and sent 'hi' on 14.043MHz.

Instantly, the chatter stopped and a sequence of letters began to appear. It appeared over and over and over again. Finally, it stopped and the chatter returned so, we sent 'hi' again. The sequence began again.

So, that's where our project stands right now. We have set up some kind of communication with someone, we don't know who. We send 'hi' and they send the same message five or six times and then stop. In fact, no matter what we send, they respond with the same thing, but we haven't been able to decode it. It looks simple, its starts with a two character header followed by two five character sequences. That's it. Maybe one of you can crack the code.

Thank you very much for having me. I've added some references if you would like a bit more background of our project.

Here's the message: VS BQSJM GPPMT

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>> *JCRAC FEEDBACK* <<