

The Smokehouse

Where Country Hams Hang Out

March 2021

President, Larry Brumett, KN4IV

Vice President, Tom Buchanan KG4KGY

Sec/Treas, Herb Hess, KJ4CMG



MCARC Meeting February 23, 2021

The meeting came to order at 7pm in the basement of the City Hall Building located in Glasgow, KY

KN4WLS made a motion, seconded by K4UOJ, to dispense with the reading of the minutes. Motion passed.

KD4SS gave the financial report. He reported \$XXXX.XX in the checking and \$XXXX.XX in the savings. The CDs earned XXXX.XX in interest over the past year. K8RPG made a motion, seconded by KN4WLS to accept the treasurer's report. Motion passed.

Committee Reports:

Repeater Committee:
KY4BC, W4RRK,
K1CNH and K4UOJ are
on the Repeater committee.
KD4SS had no update on
proposed work at the Hwy
63 site. Discussion ensued
about internet access at the
Hwy 63 site and possibly
moving the Fusion repeater
to that site for more
advanced testing.

Hamfest Committee:
KN4IV, K8RPG and
KG4ABA are on the
Hamfest committee.
KN4IV reported that the
cost to rent the Pavilion at
the Cave City Convention
Center is \$60 per day.

Field Day/Special Event
Committee: K4UOJ,
KK4RJV and K4AUU are
on the Field Day/Special
Event Committee. K4UOJ
asked if the club would be

interested in participating
in the KY QSO party this
year. The club participated
last year, and everyone had
a great time. The club
agreed to participate again
this year in the clubroom.
K4UOJ made a motion,
seconded by K8RPG to
participate. Motion passed.
The KY QSO party will be
on June 5th, 2021. More
details to follow.

Webpage Committee:
KC4RGE, KN4WLS and
W3JBG are on the
Webpage committee. No
report.

Old Business: Voted on
KO4KRM for
membership. Motion
passed. KJ4CMG reported
that the local Girl Scout
Troop is interested in
seeing and participating in
an Amateur Radio

demonstration but are waiting for warmer weather to possibly setup at American Legion Park.

New Business: None to report.

No further business to come before the meeting, KN4WLS made a motion, seconded by K8RPG to adjourn. Motion passed and the meeting was adjourned at 7:30pm. There were 8 members present for the meeting.



Report: Radio Amateurs in Israel Lose Access to Much Microwave Spectrum

Radio amateurs in Israel have lost much of their spectrum between 1 and 6 GHz and suffered a “draconian” power reduction on 10 GHz, according to a report earlier this year in *Southgate Amateur Radio News*. The report said an Israeli Ministry of Communications amateur allocations document from

November 17, 2020, shows these changes between 1 GHz and 10.5 GHz.

The 9-centimeter band, which was 3.4 – 3.475 GHz, has been lost altogether. The FCC in the US announced last fall that it would be “sunsetting” amateur access on 3.3 – 3.5 GHz to accommodate burgeoning 5G wireless providers.

The 23-centimeter band in Israel has been pared back to 1260 – 1270 MHz from the former 1240 – 1300 MHz and is only accessible by Class A license holders for satellite uplinks at a maximum power of 25 W. Satellite segments remain on 6 centimeters (5650 – 5670 MHz) at 50 W and 5830 – 5850 MHz at 200 mW.

The maximum power level permitted on 3 centimeters (10 – 10.45 GHz) is now just 100 mW, down from 100 W for Class A licensees.



23-Centimeter Band in Region 1 Under Discussion Ahead of WRC-23

In advance of World Radiocommunication Conference 23 (WRC-23), the amateur radio allocation at 1240 – 1300 MHz (23 centimeters) remains in the spotlight in International Telecommunication Union (ITU) Region 1 (Europe, the Middle East, and Africa). Chair of International Amateur Radio Union ([IARU](#)) Region 1 Spectrum Affairs Barry Lewis, G4SJH, reported that preparatory work continued during the February 15 – 19 meeting of ITU-R Working Party 4C. Also representing the IARU was Ole Garpestad, LA2RR, with other IARU members present within national delegations from Australia, Brazil, Canada, and the US. The 23-centimeter WRC agenda item has initiated technical studies focusing on coexistence between the amateur services and the Galileo GPS (radio navigation satellite service or RNSS). The IARU participated in the meeting and delivered key information on amateur activities in this microwave band.

“This information is vital to ensure the amateur services are realistically represented in the studies as they move forward,”

Lewis said. “It remains vital that national amateur communities present their views on the importance of this band to their national regulators in a consolidated and consistent manner.” To assist, IARU Region 1 is developing supporting material that member societies can refer to when addressing the topic with national regulators.

Work on this topic will continue throughout the year and beyond, both in ITU-R and in the Regional Telecommunications Organizations (RTOs). The [Summary Meeting Report](#) for the Working Party 4C meeting says, “The only administration that can be considered supportive toward proper treatment of the Amateur Services in this work is Germany.” It encouraged support from outside Europe. Working Party 4C will meet again in July. — *Thanks to AMSAT News Service and AMSAT-UK*



Maritime Radio Day is Set for April

The 10th anniversary of Maritime Radio Day ([MRD](#)) will take place

from 1200 UTC on April 14 to 2200 UTC on April 15. The annual event commemorates nearly 90 years of wireless service for seafarers. Radio amateurs and shortwave listeners are welcome and should [register](#) in advance by April 1.

Stations such as coastal radio stations and ships may participate only if operated by former commercial or Navy operators, or by radio technicians who worked on the installation and/or maintenance of naval equipment. Former Merchant Marine Radio Operators or former Ship’s Electronic Technicians are encouraged to participate.

All traffic must occur around the following international naval frequencies on amateur radio bands: 1824 kHz; 3520 kHz; 7020 kHz; 10,118 kHz; 14,052 kHz; 21,052 kHz, and 28,052 kHz. The primary working frequency is 14,052 kHz. There is no power limit. Participants exchange QSA (signal strength, 1-5), QRK (readability, 1-5), name, call sign of last or favorite ship/aircraft/maintenance company, and “additionally a tr, msg and/or a QTC, if you like.”

Submit an [email](#) or letter detailing stations worked to Rolf Marschner, Narzissenweg 10 53359, Rheinbach, Germany.



North Carolina Radio Amateurs Adapt Tailgating Hamfest to the COVID-19 Pandemic

With most hamfests canceled due to the COVID-19 pandemic, some radio amateurs in Raleigh, North Carolina, have come up with a way to adapt with a tailgate hamfest in an unused shopping center parking area. The event grew out of the so-called [Ham Radio Taco Thursdays](#), begun many years ago by ARRL Life Member Alan Pitegoff, AB4OZ.

Pitegoff had to put his event on hold when the pandemic erupted. It was suggested that hams could gather and socialize at a safe distance by having a Taco Thursday with the taco truck outside in an adjacent empty parking lot. That event was a success, with participants remaining at their vehicles and bringing their own chairs. That success inspired

holding a tailgate hamfest in the same spot, and it's now turned into a monthly event, called the [AB4OZ Hamfest](#).

Pitegoff said Taco Thursday started collecting more people — up to 15 or so — at Taco Thursday, and when Taco Bell closed due to the pandemic, the event moved to a Thursday on-the-air net, with one requirement — that participants could not talk about COVID-19.

The tailgate hamfest was established at the new location and held once a month on Saturday at 10 AM.

“I think this is a great, uplifting, and positive experience for all of us hams to get out and socialize,” participant Charles Murray, KI4DCR, said. “We might not be able to have a big hamfest, but these micro tailgate hamfests might be the future for a good while. I've met a lot of good people. There's a lot of cool stuff out here, the weather's great, you know, there's plenty of space for everybody to be socially distanced. I think it's fantastic.” — *Thanks to Martin Brossman, KI4CFS*

Quantum Receiver Can Detect Huge Swath of the RF Spectrum

US Army researchers have built a so-called “quantum sensor,” which can analyze the full RF spectrum and real-world signals, a [report](#) on Physics.org says. The quantum sensor — technically a Rydberg sensor — can sample the RF spectrum from 0 to 20 GHz and is able to detect AM and FM radio signals, as well as Bluetooth, Wi-Fi, and other RF communication protocols. The peer-reviewed *Physical Review Applied* published the researchers' findings, “Waveguide-coupled Rydberg spectrum analyzer from 0 to 20 Gigahertz,” coauthored by Army researchers David Meyer, Paul Kunz, and Kevin Cox.

“The Rydberg sensor uses laser beams to create highly excited Rydberg atoms directly above a microwave circuit, to boost and hone in on the portion of the spectrum being measured,” the article explains. “The Rydberg atoms are sensitive to the circuit's voltage, enabling the device to be used as a sensitive probe for the wide range of signals in the RF spectrum.”

Cox, a researcher at the US Army Combat Capabilities Development Command ([DEVCOM](#)) Army Research Laboratory, called the development “a really important step toward proving that quantum sensors can provide a new and dominant set of capabilities for our soldiers, who are operating in an increasingly complex electromagnetic battlespace.”

Cox said earlier demonstrations of Rydberg atomic sensors were only able to sense small and specific regions of the RF spectrum, but “our sensor now operates continuously over a wide frequency range for the first time.” The technology uses rubidium atoms, which are excited to high-energy Rydberg states. These interact strongly with the circuit's electric fields, allowing detection and demodulation of any signal received into the circuit.

The report says the Rydberg spectrum analyzer has the potential “to surpass fundamental limitations of traditional electronics in sensitivity, bandwidth, and frequency range.”

According to Meyer, “Devices that are based on quantum constituents are one of the Army's top priorities to enable technical surprise in the competitive future battlespace. Quantum sensors in general, including the one demonstrated here, offer unparalleled sensitivity and accuracy to detect a wide range of mission-critical signals.”

The researchers plan additional development to improve the signal sensitivity of the Rydberg spectrum analyzer, aiming to outperform existing state-of-the-art technology. “Significant physics and engineering effort is still necessary before the Rydberg analyzer can integrate into a field-testable device,” Cox said.