



MURRAY STATE UNIVERSITY AMATEUR RADIO CLUB



MSU ARC Meeting – September 7, 2021

Meeting was called to order by President, Tracy McKinney, W4IRT, at 7:00 p.m.

Roll Call & Question of the Night: Roll call was done and there was no question of the night.

Program: Dan Reimer, N4ZY, presented part one of a very informative program on *“Taking a Spin Through the HF Bands.”* Dan explained that the purpose of this presentation is to help those who are new to HF gain an understanding of some of the characteristics and qualities of each band and help them decide how they want to set up their home station based on what bands they plan to operate on. Dan went over a brief history of HAM radio and how the different bands were established. He then went through some of the different characteristics of a few of the amateur radio bands and recommended checking out bandplans.com for more detailed information (such as: net frequencies, known segments for different modes, known beacons, etc.) on each band.

- **160 Meters – 1.715 MHz to 2.0 MHz**
 - Sparsely populated
 - Very noisy band
 - Much more conducive to absorption than higher bands
 - Operation is notoriously hard to do
 - Antennas are a challenge
 - A half-wave dipole is around 253 feet.
 - Often referred to as the “Gentlemen’s Band”
- **80 Meters – 3.5 MHz to 4.0 MHz (also known as 75 M)**
 - CW is allowed anywhere on band but frowned upon in voice segments
 - It is broken up by license class and operating modes
 - Not the easiest to work DX, but a great social band
 - Can be quite noisy at night
 - Poor propagation and high absorption in the daytime, easier at night
 - Antennas are a challenge
 - A half-wave dipole is around 130 feet
 - If you want to cover the whole band you will need at least 2 antennas
 - Easier to work longer distances at night than during the day and even better in the winter months
 - Often known for not-so-friendly HAMS
- **60 Meters – 5 frequencies around 5.3 MHz**
 - Available for use by General, Advanced, and Extra Class licensees
 - Upper side-band is required if you are going to use side-band PEP/ ERP referenced to a half-wave dipole
 - CW, RTTY, and data are permitted but the maximum power is 100 watts
 - Band is available to HAMS on a secondary basis
 - Also used by military and government to establish inter-operability with HAMS



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Program (cont.): “Taking a Spin Through the HF Bands.”

- **40 Meters – 7.0 MHz to 7.3 MHz**
 - Divided similarly to 80 Meters (by license class and operation modes)
 - Atmospheric noise is still present but not as bad as it is in the lower bands
 - Some international broadcasters on band from 7.2 – 7.3 MHz
 - D layer absorption isn’t as severe as it is on 80 Meters
 - Usable for “short-haul DX” during the day (500-1000 miles)
 - Ground wave is good for 50 miles
 - Good for night time communication across the U.S. and around the world
 - Antennas are significantly shorter than on the lower bands
 - A half- wave dipole is around 65 feet
 - One antenna does it all
 - Very crowded band
- **30 Meters – 10.1 MHz to 10.15 MHz** (lowest of the WARC bands)
 - Has many of the same benefits as 80 and 40 meters
 - Less noise and fewer HAMS
 - Good daytime propagation, even better at night
 - Not very good for short distance contacts
 - Antennas are the smallest we have discussed so far
 - They are easy to build and effective at modest heights

Secretary’s Report: Josh Kerr, WV4O, moved to accept the minutes from last meeting; motion was seconded by Bill Call, KJ4W. Motion approved.

Advisor Report: Jana Hackathorn, KN4MWE, reported that everything is going well and that the volunteers who helped with crowd control/security at the Murray State Football game did an excellent job. They earned \$8.00/hr per volunteer for the club and may be asked to assist again in the future.

QSL Manager Report: Sue Reimer, NR4R, reported that she received four more QSL card tonight and will respond to them accordingly. She also stated that she needs the rest of the contact information from the KYPOTA event. Tracy McKinney, W4IRT, and Todd Hackathorn, W4GV, stated that they would make sure the information was sent to Sue. In an effort to save time, it was decided that we would wait until the October club meeting to review the QSL card contest winner and prices for having the cards printed.

Treasurer’s Report: Bill Call, KJ4W, reported that there were no deposits made last month, but that he does have some money that needs to be deposited. He advised that checks were written for \$7.00 to W5YI-VEC for VE expenses and for \$100.00 to MSU for Arboretum membership. Bill stated that there was also a Credit Union transfer of \$205.05 to me for reimbursement for the Log-Periodic antenna balun and some connectors (\$500 had been budgeted for this project at the July meeting). Current bank balance is \$3647.34 and as of this afternoon, 78 members have paid their 2021 dues.



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System's Report:

- Bill Call, KJ4W, advised that the replacement balun was installed on the Log-Periodic antenna on August 12. they were able to use a man-lift that a university contractor had on campus, at no charge. Bill stated that he still needs to replace the coax cables that have been damaged by squirrels, but both the Log Periodic and the broad-band dipole are available for use.
- The 94 repeater began working poorly, and Bill had found that the main 2m repeater antenna had high SWR and that apparently burned out the power amplifier. He switched to the backup antenna and the old backup repeater for a week. Bill made up new connecting cables for the Motorola MSR-2000 repeater (which had been our main repeater until we installed the Yaesu System Fusion repeater and an amplifier) and got it back on the air on Sunday. Bill stated that he doesn't know what happened to the old cables. Bill determined that the old main antenna isn't the primary cause of the SWR problem; but that was caused by water in the coax cable. He replaced a short jumper cable and shook water out of the hard-line connector and that helped, but we still have some reflected power. Bill tested the antenna out for gain and advised that it doesn't work well. He has temporarily installed an old CushCraft Ringo Ranger and it all worked fairly well on the 9-6-21 Monday night net.
- Bill advised that he is trying to decide on what to do about the antenna system. At this point he plans to not reinstall the YSF repeater which requires an external amplifier, because no one seems to be using Fusion on 94 and amplifiers just don't seem to last long on that repeater. Bill explained that the Motorola repeater has SWR protection built in and is very rugged so he believes that that is a better arrangement, if we don't need YSF. Tracy McKinney, W4IRT, suggested that we continue the discussion at the next meeting to determine what needs to be done.
- Bill reported that he still has not yet gone to Hamlin to install the amplifier for that repeater, or done any more on the HF Winlink project. He also explained that the amplifier that he has ready to install at Hamlin is a Motorola amplifier that Doyan Jennings, KA4BLZ, donated and it includes SWR protection.
- Bill reported that the 3 repeaters, the 2 APRS digipeaters and the 2m Winlink system are working well at the moment.

VE Report: Bill Call, KJ4W, reported that one exam was conducted last month after the August meeting; Stuart KN4RGB upgraded to Extra Class. We have two requests for an exam tonight.

- The ARRL has stated that the FCC will not begin collecting the \$35 license transaction fee until sometime in 2022. The ARRL has also announced that they will cover that fee for young applicants, and offer youngsters a reduced license exam fee. The catch is, the exams have to be taken at an ARRL exam session to qualify. The club uses W5YI-VEC. A big advantage of W5YI is that we file the exam report by e-mail which speeds up the processing; with ARRL the report has to be reported by snail-mail. But for some young licensees the cost saving may be attractive.



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VE Report (cont.):

- Tracy McKinney, W4IRT, recommended that since W5YI-VEC has been so fast and we have not had any problems with using them, that we continue to do so. Debbie Barton, W8IBT, motioned that the club match the program that the ARRL is providing for young applicants; Bill Call, KJ4W, seconded the motion. Motion was carried unanimously.

CERT Report: Bill Call, KJ4W, reported that there were no CERT activities this past month. He advised that siren testing is planned for Friday September 17, and will involve CERT members as observers. Bill reminded everyone that a CERT course will be held this fall. It will start September 16, and it is time to register for the course. Attendance will be capped at 20 and preference is given for Calloway County residents. Bill has flyers for anyone interested. The instructors include Larry Morris, AD6QJ; Josh Kerr, WV4O; and Larry Call, KD6UNL. Bill advised that others will be helping as well. Bill advised that he does plan to conduct a Technician Class ham radio license course following the CERT course.

Net Manager Report: Tracy McKinney, W4IRT, shared the Net reports as provided by Net Manager, Chuck Williams, K4CHW, who is not in attendance tonight. The net reports are as follows:

- *August 2021 Net Report:*
 - 5 sessions
 - 103 stations
 - 218 minutes
 - 374.23 operator hours.
- There were no SkyWarn Nets held in August.

Special Events:

- **Collegiate QSO Party:** September 18th 9:00 a.m. to 2:00 p.m. Tracy McKinney, W4IRT, advised everyone to refer to the email regarding this and here is a link for those interested in additional information: <https://collegiateqsoparty.com/> Jana Hackathorn, KN4MWE, explained that the club will set up on the patio of the Collins Building (across from the Curris Center). It will be a POTA type set up with a table and club banner/cloth and operating station set up in hopes to draw attention from the students. Bill Call, KJ4W, mentioned that coax could be run from the patio directly into the club station and to the antennas. Bill will email Dr. Claiborne to inform him of the club plans.
- **CERT Training** - September 16, 2021 through November 04, 2021.



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Special Events (cont.):

- **Vette City HamFest and 2021 Great Lakes Division Convention** – The Vette City HamFest will be held October 2nd, 2021 in Bowling Green, KY. This would be a good event for us to attend as we are a part of the ARRL Great Lakes Division and this convention is usually held in Michigan or Ohio. This may be a good opportunity to get the club's name out there and hopefully promote the club as being part of the university which may encourage young HAMs to choose Murray State University for their academic future.
- **Technician Licensing Class** to start November 11, 2021- additional information to follow.
- **Club Christmas Party** - December 07, 2021, Los Portales

Old Business:

- Debbie Barton, W8IBT, inquired about Murray State University Homecoming and club participation in Tent City on October 22-23, 2021. Jana Hackathorn, KN4MWE, explained that she is still working on getting the club signed up to participate and Tracy McKinney, W4IRT, advised that we would discuss and make plans at the October meeting.
- Tracy McKinney, W4IRT, explained that we would continue discussion of the following old business items at the next club meeting.
 - KYPOTA
 - QSL Card design contest and ordering
 - Club equipment for proposed sale
 - Club equipment lending program

New Business:

- Tracy McKinney, W4IRT, advised that we will begin discussion on the Fall Fox Hunt at the next meeting but suggested that 10-16-21 be penciled in as the date for the fox hunt.
- Bob Aldrich, WD8OWA, reminded everyone that we usually start discussion about HAM of the Year in October as well.
- Joe Wray, WD4GXI, reminded the club that there is a VHF contest going on this weekend if anyone is interested in participating.

Josh Kerr, WV4O, moved to adjourn the meeting and motion was seconded by everyone. Meeting adjourned at 8:25 p.m.



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Attendance: 36 people

Tracy McKinney, W4IRT

Dan Reimer, N4ZY

Sue Reimer, NR4R

Bill Call, KJ4W

Brenda Call, WA4IJU

Corbie Gómez, KO4ARX

Josh Kerr, WV4O

Larry Call, KD6UNL

Steven Dabbs, KN4IRN

Todd Hackathorn, W4GV

Jana Hackathorn, KN4MWE

Stuart Naulty, KN4RGB

Mike Lyons, KK4PDL

Bob Atkinson, K9OIM

Helen Atkinson, no callsign

Gary Bolton, K1DXI

William "Pepper" Sullivan, WFIRE

Greg Gordon, KX4VI

Gary Cooper, KJ4EBQ

Tim Edmonson, KA4WWS

Charlotte Edmonson, KY4GAL

Bob Aldrich, WD8OWA

Candy Aldrich, KJ4OZU

Denis Barton, WB8SKP

Debbie Barton, W8IBT

Robert Bracken, KJ7RJB

Don Edwards, K4MKY

Ruben Fuentes, WB5WTF

Joseph Siedel, KO4ASH

Vickie Siedel, KO4ASI

Steve Sacco, W1KYL

Julie Sacco, K4JVJ

Joe Wray, WD4GXI

Dale Pentecost, AF0SI

Jack Ellis, K9JLE

Respectfully submitted,

Corbie Gómez, KO4ARX, Secretary