

RF News



Baton Rouge Amateur Radio Club



September 2023 Issue

Prepared by KE5TA

The following members are serving our club since their election in December 2022 or earlier:

Officers:

Bill Smith – President (several positions 2015 to present) *
Todd Huovinen – Vice Pres. (several positions 2014 to present) *
Thornton Cofield – Secretary (2022 to present) *
Jerry Clouatre – Treasurer (2022 to present) *

Board Members:

Dan Lott
Brook Samuel
John Reise
Don Austin
Paul Smith
Joe Roppolo
Russ London

* indicates leaving position in December 2023



Thanks to all who are serving the BRARC.

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I encourage you to please consider running for office in 2024. There are open positions, and the club needs your help. Several of our Officers and Board members will be leaving after their terms are over in December.

The BRARC has several committees, and we could use your help. These committees and their leaders are:

Education and Training – Joe Roppolo

Equipment Management – Don Austin

PIO/Outreach - Thornton Cofield

USS Kidd – John Krupsky

Volunteer Examiner – Jon Reise

Equipment Loaner Program – Don Austin

Webmaster – John Krupsky

Finance – Open

Net Manager – Open

Hamfest coming up this year:

Slidell October 6-7

Club Meetings

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BRARC Member Meetings are held on the last Tuesday of the month. We are meeting at the Bluebonnet Library at 7:00 p.m. We hope to see you there. We are always looking for subject matter experts to present at our meetings. Let us know if you wish to share.

Upcoming club meeting presenter and subject:

September club meeting– David Assaf – Vacuum Tubes

October club meeting – Jeremy Gerald – Fire Safety in the Ham Shack

You are invited for Breakfast.

Waffle House @ I-12 and Walker Rd. in Walker - Wednesdays @ 06:30

Franks @ Old Cortana Mall on Airline – Fridays @ 08:00

Yeager's Down-Home Restaurant on Bass Pro Blvd. – Saturdays @ 06:15

The food is always good. Hope to see you soon. Guests are always welcome.



Club Events:

BRARC Auction – Big Mikes, 123 Aspen Sq. Denham Springs, La. 225-243-5258. – November 28, 2023, from 6:00 p.m. to 8:00 p.m. (1800-2000). This is an excellent opportunity for the club to make a few dollars and have a fun time. If you have any equipment, you no longer use/want, bring it.



[This Photo](#) by Unknown Author is

BRARC Christmas Luncheon – Big Mikes, 123 Aspen Sq. Denham Springs, La. 225-243-5258.– December 9, 2023, from 11:30 a.m. to 2:00 p.m. (11:30 – 1400).

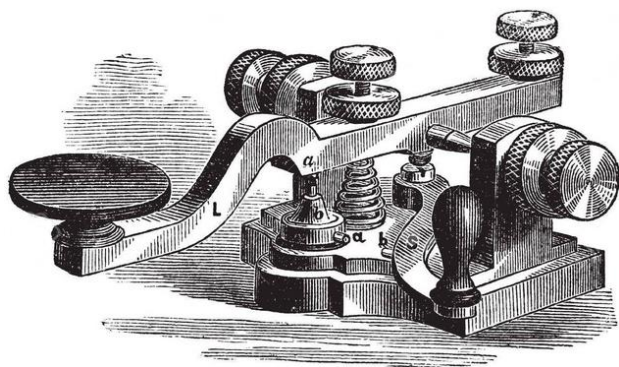


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News:

John Mark Roberson is stepping down as Louisiana ARRL Section Manager due to health-related issues and Matt Anderson KD5KNZ will be assuming all responsibilities. We wish John a speedy recovery.



Baton Rouge Amateur Radio Club Slow Speed CW Net

The BRSN (Baton Rouge Slow Net) is now active! We had our first Net on Tuesday evening, July 11th, and we could call it a success – that is if you were able to make contact. Several reported they could hear but not be heard, or not hear anything. QSO's were made with six members and hope to increase that number. Remember, you don't have to be fast. Just send your call sign at whatever slow speed you wish to use. I'll try to come back to you at that speed. We meet on **10.120** MHz at 6:30 local time every 2nd and 3rd Tuesday evening. Thanks to N5DR, K5AHE, WA4MXT, KE5TA, and AB5TH for participating!

73

Jerry AG5AY

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Amateur Radio Class



Ready to upgrade your General License to Amateur Extra?

Baton Rouge Amateur Radio Club is teaching an Extra Licensing Class during October and November 2023. The class will be a hybrid format class with three in-person Saturday sessions and 4 evening online sessions during the week. There is no cost for the class, and we will follow the ARRL Extra License curriculum which corresponds with the ARRL Amateur Extra License Manual.

If you are interested in learning more about the class offering, please contact Joe Roppolo (K5ROP), Director of Training at K5ROP@BRARC.ORG

We will also be announcing details on our webpage and Facebook pages. Please visit our pages to learn more about club activities and come visit us at our monthly meetings.

Tentative Dates (based on in-person meeting location availability):

In-person (Saturdays, 10 am-3 pm)

Oct 14

Nov 4

Nov 18

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Online (Tuesdays, 7-8:30 pm)

Oct 17

Oct 24

Nov 14

Nov 21

Club Meeting Nov 28 (optional)

VE Exam Session Dec 2 (optional, but you WILL BE READY!)



Five Candidates Test for Licenses

The BRARC VE team conducted the third exam session of the year on Saturday, September 2nd at the EBR Main Library on Goodwood. Two Candidates pre-registered and we accommodated three walk-ins. Four of the Candidates had not been licensed before. One examination

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room was used at the library. The successful Candidates and their new license were:

- Ava Gerald, KE5UQE Extra
- Colin Blood General
- William Curry Technician
- Edwin Curry Technician
- Daniel Luecke Technician

This session's VE Team was comprised of:

- Jon Reise, WA9JBR
- Todd Huovinen, AB5TH
- Hank Ellis, K5HDE
- Paul Smith, KG5HLB
- Jeremy Gerald, AD5XY

Ava Gerald, KE5UQE, a long-time member and past President of BRARC easily passed her Extra exam. Her husband Jeremy, AD5XY helped with some of the extra duties during the session and has now joined the BRARC VE team.

BRARC will be conducting the next test session at the library on Saturday, December 2 at 10 am:

If you hold a Technician or General class license, think about upgrading at one of our test sessions. If hold a General Class license, consider registering for our Extra Class license course starting October 14th at the EBR Goodwood Library. Registration can be done on the BRARC website, www.brarc.org. If you are a VE and interested in joining the BRARC VE Team, contact Jon Reise, WA9JBR at jreise92@gmail.com

DC over Coax Three-Way Antenna Switch

Jerry Clouatre, AG5AY

One of the things I enjoy is experimenting with homebrew antenna designs. I currently have an off-center fed dipole and a vertical antenna, and I wanted to easily swap between those two and a third experimental antenna. My shack is located on the opposite side of my house from the antennas with about 125 feet of coax run through my attic just to get to my antenna connections. I would have to go outside to swap coax connectors between the OCF and vertical antenna leads, or to connect to my test antenna. It would be nice to have three different runs of coax, but with the bulk and length of the coax, not to mention the expense, I started looking for something that would switch between the three antennas and could be controlled from in the shack. I was also looking for something I could build using parts I have on hand.

To reduce the cost and effort of running a separate cable to control the antenna switch, I decided to use DC power over the coax to switch the antenna relays. It's pretty easy to do with two antennas, but adding a third was a bit of a challenge. I searched on the internet and various antenna project books but only found two position antenna switches and no simple solutions for three antennas.

What I came up with was a pretty modest solution for this simple one evening project (see Figure 1). After a short search on the internet, DC over the coax was easy to do. Capacitor C2 and C9 passes RF from the transceiver to the antenna while blocking the DC (see Figure 2). The two chokes, L1 and L2 block the RF from the relays and power supply while allowing the DC to pass. The other capacitors filter any RF to ground. Using diode logic with two relays, three-way control can be easily

accomplished. With no voltage applied from the controller (S1 in the center position), the normally closed contact on RY1 and RY2 brings the RF signal to ANT 1. With a positive voltage applied from the controller (S1 in the down position) diode D1 allows relay RY1 to energize, connecting ANT 2. With a negative voltage applied from the controller (S1 in the up position) diode D2 allows RY2 to energize, connecting ANT 3.

Any style of construction can be used to build the switching unit and the controller. As you can see in Figure 3, I simply connected the parts directly to the switch and SO-239 UHF chassis mount connectors using point to point construction. For the remote switching unit, Figure 4, I decided to use a pref-board to mount the two relays and components just to keep things a little neater inside the enclosure. The enclosure for outdoors is an aluminum weatherproof electrical box. For indoors, I used a small BUD box left over from another project.

Using a 5/8" spade bit, it was easy to drill through the aluminum BUD box and weatherproof box. Holding them secure in a vice helped keep them steady and safe while slowly drilling the holes for the SO-239 connectors using my drill press.

One important precaution, though. Because of reversing the control signal polarity with reference to ground using the DPDT switch, you cannot use the same power supply that is used to power your transceiver. It must be isolated to prevent shorting the rig supply positive lead to ground. I simply used a wall-wart type 12 volt supply I had on hand. Both legs of the input power should be fused to protect from accidentally shorting the power supply to the common ground. The values used in this project are not super critical and were what I had on hand. If running an amplifier, make sure the components have sufficient voltage rating and power handling capabilities.

I've been running this three-way coax switch for a couple of years and it's still serving me well. It was well worth the couple of hours to put it

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together. It can always be fancied up a bit with LED indicators to show the connected antenna, but that's for another time.

<i>PARTS LIST:</i>	
C1	5 pF
C2, C9	0.01 uF 1.6KV
C3, C6, C10	0.01 uF
C4, C7, C11	0.1 uF
C5, C8, C12	4.7 uF non- polarized
D1-D4	1N4003
RY1, RY2	SPDT 12v relays
S1	DPDT switch, on-off-on
F1, F2	1A fuse
L1, L2	25 mH
J1-J6	SO-239

Figure 1 – Antenna Switching Controller

Figure 2 – Using DC over coax and diode logic to control the switching relays, the DPDT switch S1 can remotely select any one of three antenna feeds into the shack.

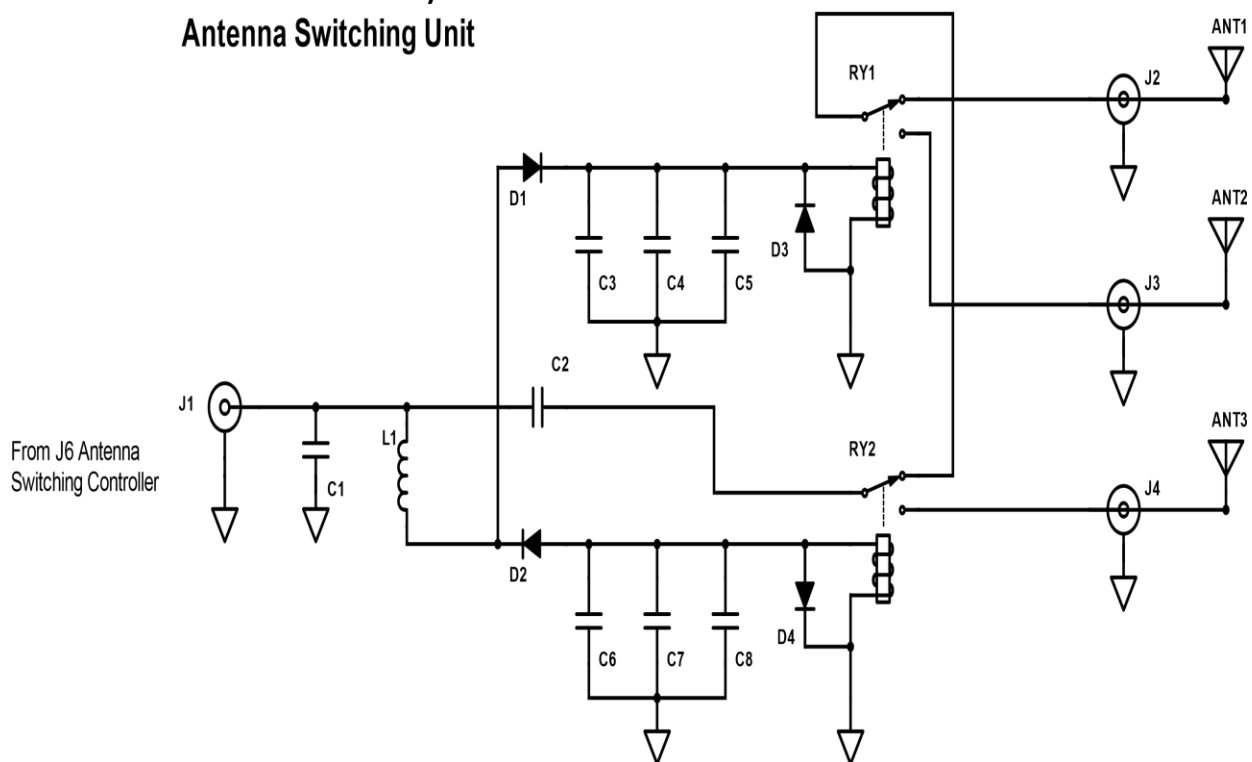
Figure 3 – The antenna switching controller built using point to point wiring.

Figure 4 – The remote antenna switching unit, located in the field, was assembled inside a weather resistant enclosure.

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Figure 5 – Even after a few years of service, the remote switching unit is still ready to connect to a test antenna, allowing a quick comparison of different antenna performance.

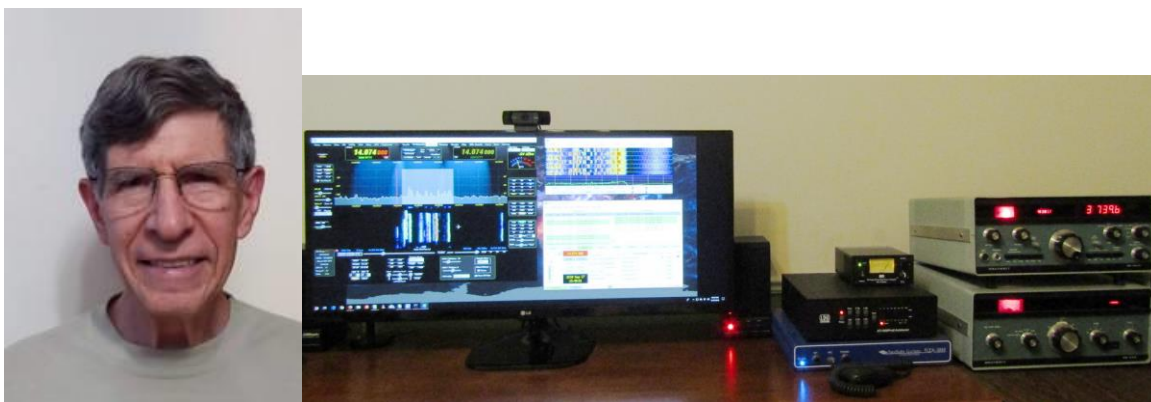
DC over Coax Three-Way Antenna Switch Antenna Switching Unit



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Introducing - John Krupsky



WHAT IS YOUR NAME? AND WHAT KIND OF WORK DO YOU DO NOW? IF RETIRED WHAT WAS YOUR WORK?

My name is John Krupsky, callsign WA5MLF. Since 2012 I have worked part time for a small family medical practice, supporting their computer and telecom services. Prior to that most of my working career was with BellSouth Telecommunications in

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engineering and planning of networks and operations support systems. I spent some time at Bell Communications Research in New Jersey, working with optical fiber communications, laser diodes and digital transmission systems. I also served in the US Navy in submarines.

WHEN DID YOU FIRST BECOME INTERESTED IN AMATEUR RADIO AND WHAT LED TO YOUR INTEREST IN AMATEUR RADIO?

Before high school I became interested during my time in Boy Scouts, visiting a ham for the radio merit badge. I also enjoyed listening to a short-wave radio at home.

WHAT DO YOU REMEMBER ABOUT YOUR FIRST RADIO SETUP?

I started with heavy, vacuum tube transmitter and receiver units made by Hallicrafters, connected to a dipole antenna. I did not keep this equipment during my service in the US Navy but went on to build a Heathkit solid-state transceiver and a single-tube linear amplifier while stationed in Virginia in 1976. I still have the Heathkits, but a FlexRadio SDR transceiver is what I've normally used since 2013.

DID YOUR FORMAL EDUCATION PREPARE YOU OR LEAD YOU TO AMATEUR RADIO OR WAS IT JUST THE REVERSE?

Amateur radio was a facet of my interest in electronics and supported my education, leading to bachelor's and master's degrees in electrical engineering.

WHAT DO YOU ENJOY MOST ABOUT AMATEUR RADIO NOW AND WHY? Can list multiple items. (modes of operation, contesting, experimentation, kit building, etc.)

For the past few years, my activity has focused on HF radio voice and digital modes. Operating our club station W5KID aboard the USS KIDD is one of my favorite activities. I am the station trustee and enjoy being with our club members who come to operate this fun station. I participate in two annual QSO parties on HF, one of which I support through scheduling and website postings. I have not participated in contests.

I've enjoyed experimenting with wire antennas, including a horizontal loop and multi-band dipoles, particularly using designs published by W8JI on his website. (These days I note that off-center-fed dipoles have become very popular for multi-band use.) I used an antenna analyzer and [antenna modeling software](#) to better understand and optimize these antennas. I've observed and learned more about HF radio propagation, combining my own experiences with propagation modeling (e.g., [VOACAP](#)) and the data published by [ionospheric sounders](#) that sweep the HF range to assess the state of the ionosphere. Another type of radio operation I got involved with in recent years is the remote operation of HF transceivers via Internet connections. An example of this is described in the article I contributed to the August RF News.

I use a different Internet tool to augment my radio communication with long-time ham friends in multiple states of the southeastern USA. In past years we held morning roundtable QSOs on the 75 m band supplemented with live text chat over the Internet. Over time we added video chat alongside our radio roundtables. Eventually we discovered [Discord](#) and are enjoying video chat along with a nice structure for sharing and storing lots of ham radio and computer web articles, photos, and discussions among our members. Screen sharing has enabled us to demonstrate ham radio equipment features, computer software, and provide online

assistance to our group members. Many BRARC regulars may recall the Discord presentation at a past club meeting by Erik (K5EDH).

WHAT ARE SOME OF THE MORE EXCITING EVENTS THAT YOU CAN REMEMBER REGARDING YOUR EXPERIENCE WITH AMATEUR RADIO?

One of my fond memories of the 1990's involved a road trip from Birmingham to Atlanta for a 2-day department event. Four of us hams road together in my car and we planned to make some mobile HF radio contacts. I provided my car and antenna. Another ham brought his solid-state HF transceiver. A third ham brought his laptop computer and the fourth brought software for the fairly new PSK-31 digital mode. During the drive, the guys in the back seat got the software installed and set up to interface with the transceiver. Everything came together and the guys made multiple PSK-31 contacts as we cruised along I-20 on the way to Atlanta.

WHAT DO YOU THINK AMATEUR RADIO WILL BE LIKE IN 20-30 YEARS?

As others have said, this is very hard to forecast. Continuing use of the radio spectrum for amateur radio is subject to commercial pressures. I expect that computer hardware and software will continue an expanding role in radio communication. Signal processing will become more sophisticated. Digital voice modes will become more common. Commercially built amateur radio equipment may become smart enough to need fewer manual controls to obtain the same results. I hope that hams will continue to have access to the frequencies that inspire wonder about the nature of the ionosphere. I hope that home-brew gear will continue

to be possible and will provide opportunities for young entrants to the hobby to create ways to experience the physics of radio.

WHAT ADVICE CAN YOU GIVE TO A NEWLY LICENSED AMATEUR TODAY?

Get acquainted with your local amateur radio club(s). You'll find members who can share their knowledge and experience about many facets of amateur radio. They can help you with challenges you may encounter involving equipment and antennas.

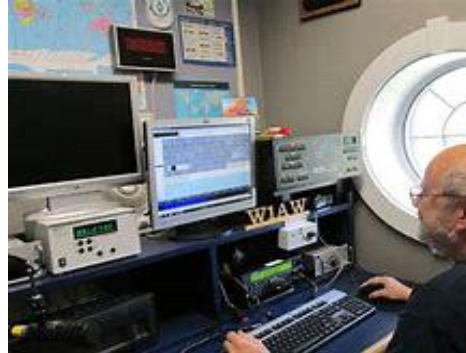
WHAT CAN THE BATON ROUGE CLUB DO TO ENHANCE YOUR RADIO ENJOYMENT? Be specific if possible!

Continue to provide activities that enable members to interact with each other on projects and radio operating events.

MY NON-RADIO ACTIVITY WITH BRARC

I've been the webmaster for brarc.org since 2016. Since our website was already set up with [WordPress](#), this enabled me to extend what I knew about building web pages with regular HTML. I try to make our website useful and organized in a way that makes it easy to find important and timely information while also including photos of club events. I welcome any comments or suggestions for improvements.

W1AW/VOTA Louisiana Operating event



Louisiana has one remaining week to operate as W1AW/5, December 6-12. W5WZ Scott Dickerson is the Louisiana coordinator for both weeks. Visit <https://www.w5wz.com/vota/> for more information and scheduling. Please join in.

USS Kidd

GOTA HF – USS KIDD – 12 August 2023

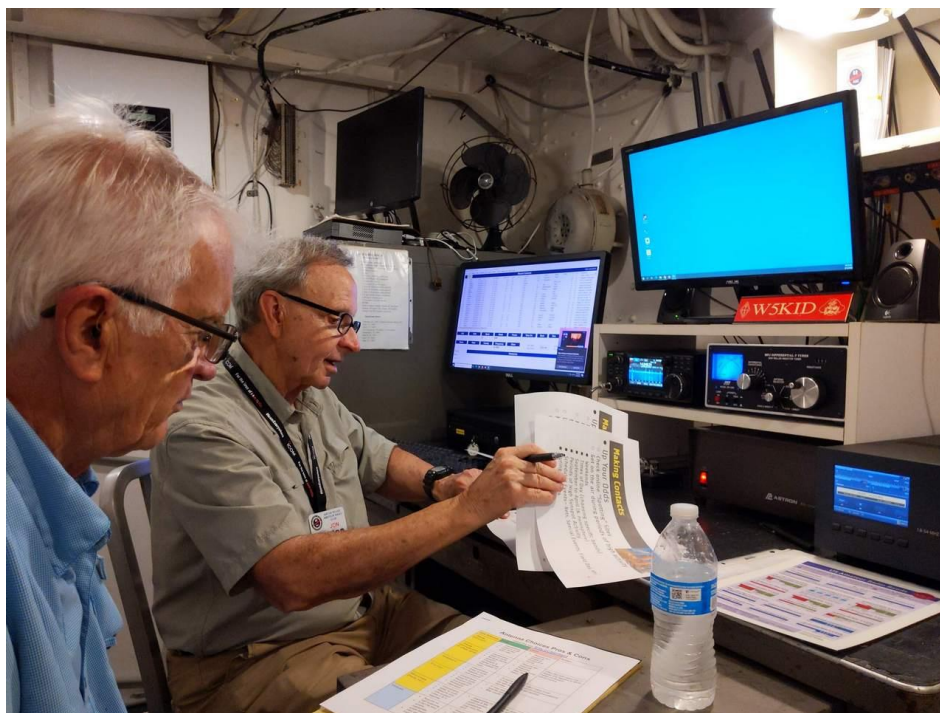
Our club sponsored another **Get on The Air** session for members who recently earned or upgraded their ham radio licenses. This was a tutoring session for learning the basics of operating an HF ham radio station.

Using the W5KID station aboard the USS KIDD we covered the following topics:

- HF station setup
- Use of a station PC
- Logging software
- Making digital FT8 contacts
- Basics of an SSB contact

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Jon Reise (WA9JBR) conducted the session, which included a voice contact by Bill Clenney (KI5ZYN) with Jon's friend in the Chicago area, on the 20 m band.

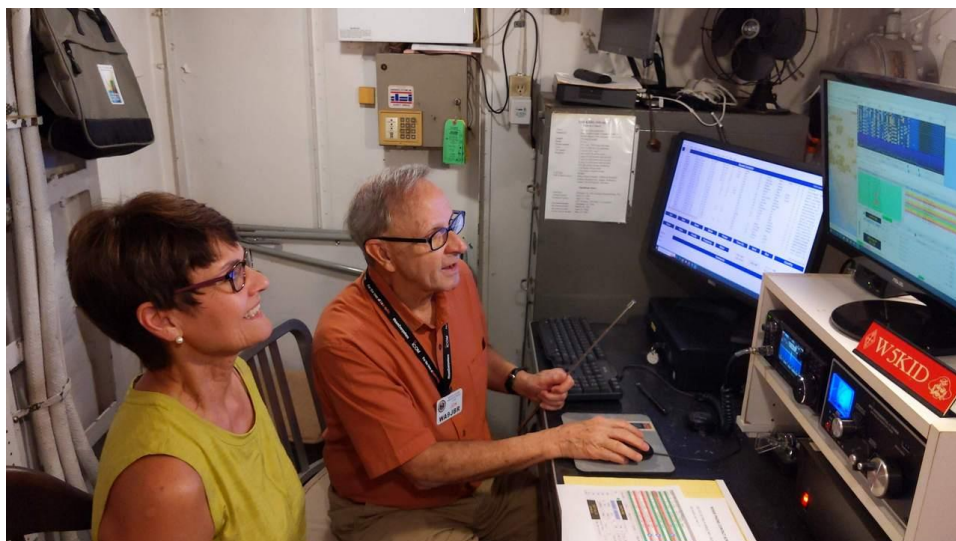


Other voice contacts included New York and Wisconsin. Our FT8 contacts included Colorado, Maryland, and Nebraska.

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GOTA HF – USS KIDD – 30 August 2023

This **Get on The Air** session using the W5KID station covered the same content as the one described above. The attendees, Pam Welsh (KF5IPJ) and Jeff Welsh (KF5ENP), enjoyed the instruction and dialog with Jon Reise (WA9JBR). They both enjoyed turns speaking with other hams on the 20 m band.



Here is a summary of the contacts made during the session:

Digital FT8 contacts:

Veterans Crisis Line – dial 988 then press one or text 838255

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20 m band - Arizona, Indiana, Texas, Virginia

17 m band - Norway, Dominican Republic and California

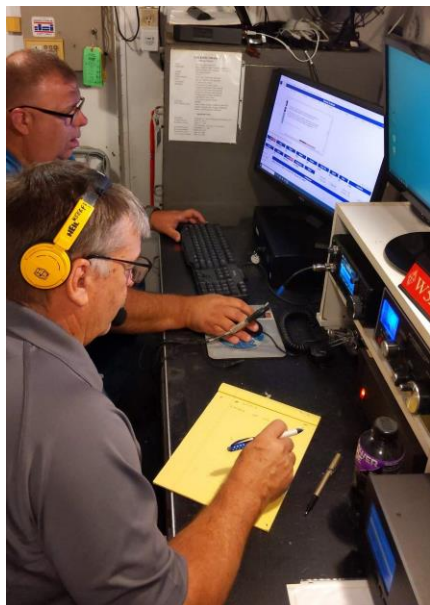
Voice (SSB) contacts:

20 m band - Florida, Indiana, Michigan (2) and West Virginia

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V-J Day – USS KIDD – 2 September 2023

Our club station W5KID was on the air in recognition of V-J Day, when the surrender document was signed, officially ending World War II in 1945.



The operators during the first part of the morning were Elmer Tatum (N5EKF) and Jason Mullins (KI5ZAZ). During the remainder of the morning the operators were Jason Mullins (KI5ZAZ) and Jason Giroir (KI5LIG).

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We logged 33 contacts, with 9 on the 40 m band and 24 on the 20 m band. All contacts were SSB voice. The locations we reached included 2 in Canada and the following USA states: AZ, CO, IA, IL, LA, MA, MI, MN, MS, NC, NY, PA, TN, TX, VA, WA, WI.

Many thanks to Jon Reise and all the participants who made these events successful and enjoyable.

73,

John WA5MLF

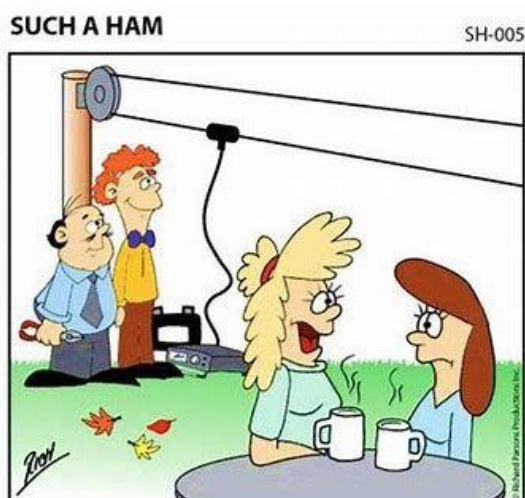
The USS Kidd will be headed for dry dock and much needed repairs late in the fall of 2023.

Observatory

The antenna/rotor work is planned at the Observatory this fall when the weather is a little cooler. It should be in time for use as we know the USS Kidd will be getting a facelift soon after. More information as it becomes available.

I will try to send out each publication by the 10th of the month. If you have something to contribute, please send it to me by the first of the month.

williamfk100@outlook.com



Stan & Cliff have been working all day
on installing my clothesline, Mary.

BATON ROUGE AMATEUR RADIO CLUB



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