



The Maury Amateur Club News *June 2023*

The Maury Amateur Radio Club BOX 1871 Columbia, TN 38402 w4ggm.org

from the president....



May was certainly a busy month! We had lots of stuff going on in our household. I don't think I got to spend hardly any time on the air. In fact, I mentioned in last month's newsletter that I was wanting to set up my Pi-Star and try operating D-Star - well you can guess how far I got on that project! Hopefully I can get some quality radio time in this month.

Field Day will be here in just a couple of weeks. The club will be set up in Maury County Park (more details are in this newsletter). If you are new to Amateur Radio, or if you have never been to Field Day, I recommend stopping by the park on the 24th and checking it out. Like last year, we will be 100% battery powered, with some running off of solar. We will stop operating at 6PM and have a club dinner and hold a brief club meeting. Even if you are not participating in Field Day, you are welcome to join us for some good food and fellowship.

Also keep in mind that this month's club meeting will not take place at the LaFuente Mexican Restaurant next Tuesday. Instead we will have a short meeting at Field Day on the 24th. Also keep in mind that the Club Breakfast which is the 4th Saturday each month won't take place since we will be busy setting up Field Day in the park. The breakfast will resume in July.

I hope to see you all at Field Day! If you know any non club members be sure to invite them to Field Day. That also goes for anyone who may be interested in ham radio. You don't need a license to come see what is going on.

73 Joe N4JW

The June Club Meeting will be at Field Day

The May Minutes 2023-05-09

LaFuente Mexican Restaurant

17:30 Chew & Chat
19:00 Meeting starts

Meeting called to order at 19:00 by Joe our Pres, N4JW.

In Attendance:

22 in person & 4 Zoom.

Motion to Accept last months minutes as published in newsletter:

Motion to accept: Johnathan KQ4ATG
2nd: John N5AAA

Passes

Financial Report

By Paula KK4WVO
Balance March 27, 2023: \$2,756.11
Income: +\$95.88
OutGo: -\$79.00
Balance April 27, 2023: \$2,772.99

Motion to Accept:
Travis KO4HUO
2nd: Bob K4HRK

Passes

New Motions:

None

Announcements/News:

> Field Day Bridal & Saddle Pavilion @ Maury County Park
for more info contact Rick K4PKA or Justin K4LEN

> Fox Hunt July 22

> Discussed digital repeater and hot spot. Looking into D-Star

Motion to adjourn:

Rick K4PKA
2nd: Paula KK4WVO
Meeting adjourned at 19:10.

Presentation

by Buford W4HVV
Chasing DX

73, KK4FHS





Field Day 2023 *June 24-25*

The MARC 2023 FD operation will take place during the weekend of June 24-25 at the Saddle and Bridle pavilion, located in the Maury County Park. Talk-in will be on the W4GGM repeater, 147.120 MHz, PL tone 127.3 Hz. From 9:00 AM to 1 PM the club will be busy setting up the antennas and stations. We always need people to help with set up. Antenna checks and logging computers will be configured for the 1 PM start. For those who have never been to a Field Day, are an unlicensed or new ham, or want to learn about the different antennas and radios this is an excellent event to attend. Do not hesitate to ask questions and everyone is welcome. You do not have to be a MARC to join us as well as operate. FD is a great way to learn about the different frequencies and the propagation to different parts of the country at different times of the day and night.

If you are unfamiliar with FD and its operation, be it logging, putting up antennas or setting up stations, or making contacts, you will be paired with another ham that has done FD before. We all were new to FD when we first became hams. You'll find that FD is a lot of fun and you'll be anxious for next years FD after being "bitten" by the FD bug.

Club dinner 6 PM

The FD operation will temporarily shut down around 5:30 to prepare for the club dinner. Everyone brings a covered dish that is typical of a picnic (heat tolerable), a 2-liter bottle of pop or sweet/unsweet tea, or your favorite non-alcoholic beverage. If you bring serving utensils, please mark them so that they can be returned to you. Water will also be available. We need several coolers and ice to keep the mayonnaise-based dishes cold, as well as keep the food cold for the overnight operating crew. The club will furnish the BBQ for the club dinner and paper goods (plates, napkins, forks, etc.) are also supplied.

After the dinner there will be a short June meeting then everyone will be free to socialize or go operate the different stations. This is a great time to meet club members or put a face on the person you talk to on the repeater but have not met in person. If you have a comfortable chair to sit in, please bring it as picnic benches are not the most comfortable items to sit on.

At 8:00 PM the FD operation will return to the air and continue to operate throughout the night and up to the 1 PM shutdown. We also need operators throughout the night as well as Sunday morning to relieve those who were up all night. Justin K4LEN and Bill W4WRR will undoubtedly be trying to make contacts through the amateur radio satellites, as well as the International Space Station. Last year they were able to contact the ISS for FD credit, as well be treated to a visible flyover Sunday morning.

At 1:00 PM the FD operation will shut down, followed by teardown, and returning the club FD property to storage. We also need several to help tear down. After the FD site has been cleared of any trash and debris everyone can go home. Let's continue to keep the pavilion clean so that we can use it again.

Continued...

If anyone has pictures of the club members who have recently passed away:

Dale Adams KA4ZDR

Jerry Brown N4EO

Angie Brown KH6EO

Frank Bale KA4HBQ

Wade Staggs KJ4WS

Cary Nettles W5SRR

or any others please bring a picture of them so that they can be remembered.

Anyone who has built a “Go Box” for use in emergency communications and want to show them off please bring them. With the recent severe weather and increased interest in disaster preparedness there will be quite a few hams interested in building their own.

During set up there may be an antenna that may need to be repaired or rebuilt. This is a good time for the new hams to learn more about how to build a wire antenna.

FIELD DAY NEEDS:

2 air cannons (aka spud guns)

Ice (lots of it)

Coolers to store the ice in

5 gal water cooler

T-post drivers

Operators (day and night)

Control ops and coaches for the GOTA station

Tour guides to answer questions from visitors

Antenna analyzer and coax adapter

If you have any questions contact Justin K4LEN, Rick K4PKA, or Paul WB0CJB. We look forward to seeing you all at FD June 24-25!

73,

Justin K4LEN

Rick K4PKA

If you've never been to a Field Day.... Why go?

You can learn more in one day at Field Day than you will in a year sitting at home in front of your rig. On Saturday morning you'll see the antennas going up and stations being set up. You'll see different types of radios and gear. You will meet other club members.

At almost every Field Day I've been to, it was disappointing about how many of the newer hams that don't show up. Just show up... you don't have to do anything. You will not have to operate any of the stations, or even bring anything! You don't need to help with the antennas or anything else if you don't want to. We will just be happy that you came.

You are welcome to sit with any of the operators and perhaps help with logging or maybe grab the microphone and make some contacts. Or can just watch and if you have any questions, just ask.

Saturday morning is the time to visit if you want to see different types of antennas going up. The club has a few OCF dipoles and I'm thinking someone will have an End Fed antenna. Sometimes we have guys setup antennas for the satellites. Hey... it's always fun watching guys shoot lines over the trees to put up wire antennas with an air powered tater gun.

Operating will start at 1PM Saturday and ends at 1PM Sunday. They will always be someone there playing radio. You have a 24 hour window to see Field Day in action. We will have stations for SSB, CW and digital modes (*and possibly satellites and VHF*).

Let's not forget dinner! Around 6PM we will shut the radios down and have dinner. The club is supply BBQ and if you want to bring something to pass around feel free. I'm sure there are detail elsewhere in this newsletter.

If you know any non club members pass along this info on Field Day and invite them to come or perhaps forward this newsletter to them. We are open to non club members and anyone interesting in ham radio.

If you have any questions or suggestions for Field Day contact these 3 gentlemen:

Justin K4LEN justin_killen4605@yahoo.com

Rick K4PKA k4pka@arrl.net

Paul WB0CJB wb0cjb@hotmail.com

73 Bill K4BX



*picture
from
Field Day
2005*



| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|-----------------------------|-----------------------------|-----------|---------------------------|--------|---|
| | | | | 1 Club NET 8:00 PM | 2 | 3 |
| 4 ARES NET 8:30 PM | 5 MTEARS NET 8:00 PM | 6 NEWBIE NET 8:00 PM | 7 | 8 Club NET 8:00 PM | 9 | 10 |
| 11 ARES NET 8:30 PM | 12 MTEARS NET 8:00 PM | 13 | 14 | 15 Club NET 8:00 PM | 16 | 17 |
| 18 ARES NET 8:30 PM | 19 MTEARS NET 8:00 PM | 20 NEWBIE NET 8:00 PM | 21 | 22 Club NET 8:00 PM | 23 | 24  |
| 25  | 26 MTEARS NET 8:00 PM | 27 NEWBIE NET 8:00 PM | 28 | 29 Club NET 8:00 PM | 30 | |

The June Club Meeting will be at Field Day

6 Meters is coming to life... from Fran KM1Z

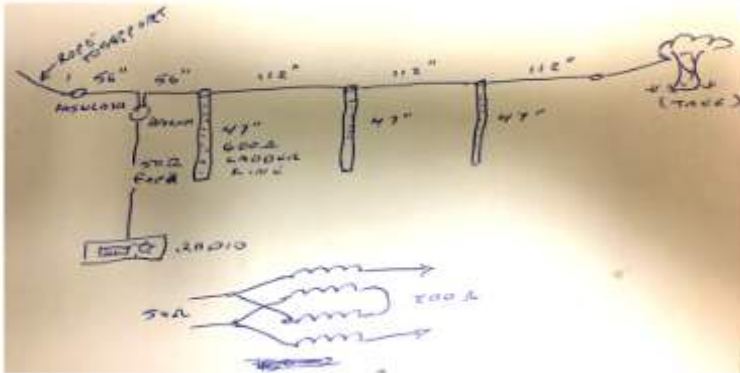
Summer is here and the time is right for sporadic E propagation.

The six meter band is not open very often, but when it is, it can be fun. With the sunspots coming up, we might even get some F layer propagation and start working more distant DX.

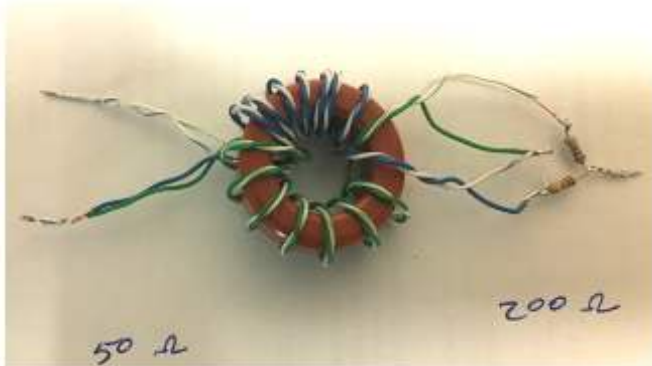
6m is known for being the “magic band” and that is for a good reason. Often, you can run a 100w and not be heard anywhere, but sometimes it seems like you can be heard everywhere with a small amount of power.

It's a good time of year to work the six meter band. The “E” layer of the ionosphere is getting active sporadically. You might say “Don't you need a tower and a beam to work 6 meters?”. Apparently, not in this case. My homemade gain antenna is made of wire and cost almost nothing, just some time to look up some designs in ARRL books and the internet.

About a year ago, I put up a 4 element co-linear dipole. This is not a dipole, but it is sort of, it is a bunch of dipoles fed in phase and strung along like a big clothesline. One dipole feeds the other in a line through some ¼ wavelength sections of ladder line that are shorted at the end to result in a ½ wavelength delay.



It is mounted on a 20 foot pipe that was previously used for a chain link fence. On 6 meters, a half wave is 3 meters (sorry if that's obvious) which works out to about 10 feet, so you don't need a 100 foot tower. A colinear



antenna is just a few half wave elements strung in a line driven in phase so that there is gain broadside to the wire of approximately 4.5dB over a dipole, since the spacing between elements would be ½ wavelength. There is plenty of published material explaining antenna theory, so I'll try to keep things simple here.



The feedpoint impedance is around 200 ohms, so you will need to match it somehow. This can be a coax balun, a 1:4 balun wound on a toroid core, or just feed it with ladder line from a tuner. I made a small 1:4 balun (balanced to unbalanced transformer) using a toroid. I know that there are various types of baluns and that a lot of people don't like winding toroids. I happen to have a box of toroids in my junk box, so I used one. The transformer shown is made with wire from a length of CAT5, which might be alright for QRP. You might want to use some teflon sleeve for higher power levels. The resistors are just there for my testing. I attached a 200 ohm small load to check the SWR with an antenna analyser.

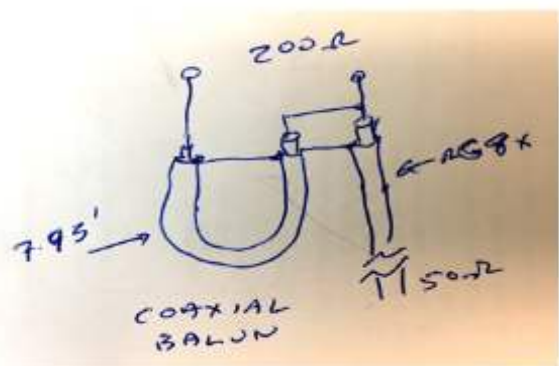
The ARRL Antenna book has designs for a ½ wave coaxial balun which can be made from a length of coaxial cable and gives you the 1:4 impedance transformation. In case my hand drawing is not clear, the length of coax should be 7.93 feet, which is a 1/2 wave on 6 meters with velocity factor of the coax figured in.

If you get on 6 meters, you can monitor propagation with this website:

<https://pskreporter.info/pskmap.html>

It can be interesting to see how propagation changes over time. I noticed that my signal “moves around” on the map as the E layer changes when the band is open.

73 Fran KM1Z



coming
soon

THE EXPERIMENTERS NET

Your Amateur Radio community wishes to announce a new group/net, called

“The Experimenter’s Net”

Once upon a time, if you wanted to get into ham radio, you built EVERYTHING!

That was not because it was optional, or to be found in a catalog...if you wanted it, you had to build it

Our Net controls and Conveners will initially be

| | |
|--------|-------|
| WA2BHS | EV |
| N1COZ | COZ |
| N4BBB | SCOTT |

When discussing this, I immediately thought about WA2BHS’ QRP RIGS...Ev has been prolific in building these

N1COZ, Coz, has been building a high-power Solid-State linear Amp..

Lastly, N4BBB, Scott, has been a builder of kits since the 60’s

These are other areas of interest, and other builder projects, like Raspberry PI, Arduino, SDR apps, antenna building, VNA, DMR, and others...

We plan on other subjects, like construction techniques, Soldering, heat-sinking, etc...

In the spirit of the Experimenter, we plan on being Frequency Mobile...

We were considering the E Net to be on 6m, or maybe 2m simplex, 10m FM, 40 phone, etc....it would make an opportunity to experiment with new modes, like FSQ, or older ones, like JSCALL, OR EVEN OLDER ONES, LIKE PACKET....

Tentative meeting time is 8:00 PM July 8th on Saturday night.

We’ll call up the net on 147.12 W4GGM, with tone of 127.3, repeater, and QSY to another frequency for the net session.

The First Session of the Experimenters Net, is tentatively set for the July 8 at 8:00 PM.

Topic suggestions are appreciated

Scott N4BBB n4bbb@outlook.com

Kit Building 101 Introduction from Everett WA2BHS

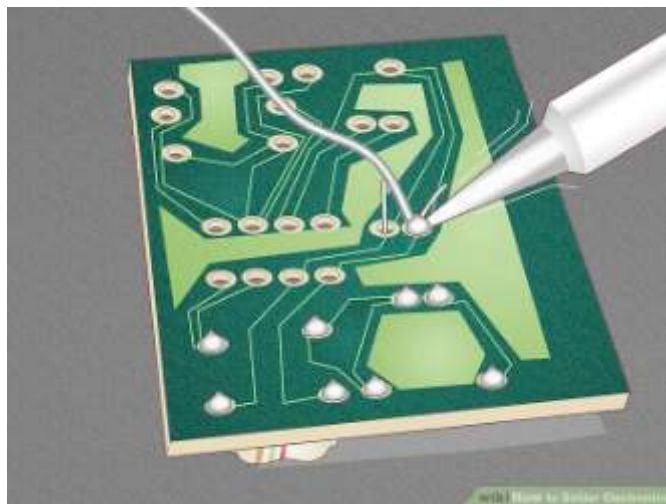
Back in the 1950's many hams built their own radios. Commercially built transmitters, receivers, and accessories were quite expensive. After WWII there was a large surplus of quality electronic parts offered to the public. Much of these parts surplus became available to companies like Heathkit, Ten-Tec and others. These companies designed kits intended amateur radio use at a cost less than the commercially built radios.

In 1972 Heathkit introduced the HW-7 transceiver as a kit. This had a Direct Conversion receiver.

In 1968 to 1972 Ten-Tec introduced the Power Mite. All that was required was to install the modules and inter connect and mount them into a your housing and add controls, switches and meters. This produced a nice 2 watts of output on CW. It covered 80 and 40 meters. The Power Mite PM-1, PM-2 , 2B, and 3 were available around \$69 to \$79. Both of these kit I purchased, built and used. Today's kits are better designed and have more bands and modes.

The Experimenters Net

I have been asked to share my Kit building and operating experiences with you. It has been a fun part of of my ham radio journey over these many years. I hope that in sharing my experiences it will encourage you to learn about soldering, electronic components, building, and troubleshooting of your projects.



There are others more qualified to guide you in kit building than me, but I will make every effort to answer your questions. If I don't know the answer I will find you the answer from someone who does.

Warning, I am facing some serious health problems and will endeavor to do this as best I can, so please have some patience.

Please contact me at wa2bhs38401@gmail.com with any questions you have about kit building. Please let me know if you have any training in soldering and what kits you might have built in the past and what you would like to accomplish. The more questions the better.

73 Everett WA2BHS
wa2bhs38401@gmail.com

Great resources of some simple kits

4State QRP Group <http://www.4sqr.com/kitIndex.php>

QRP Guys <https://qrpguys.com/>

QRP Labs <https://qrp-labs.com/>

lets ask MARC...

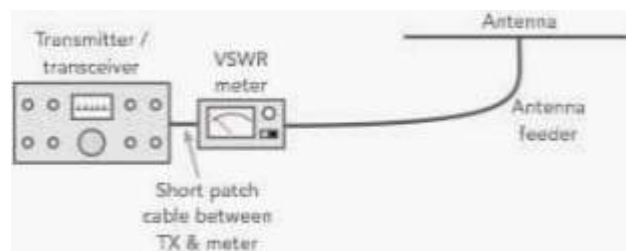
Does a low SWR reading mean my antenna will work well?

Not all all! What the SWR is telling you is how well the coax is matched to your antenna. The better the SWR, the more of your power that will be delivered to the antenna. SWR is an indicator of how well the impedance match is between your rig and antenna, and not an indicator of how well the antenna will work.

My transceiver has a built in tuner and when I tap the Tuner button, things happen and the when it's done, the rig's SWR meter reads very low. Did that fix a high SWR?

No it does nothing to improve the SWR on your coax. If you had an external SWR meter in your feedline it will show you the actual SWR and it will not change when the rig's autotuner does it's magic.

Even though the autotuner in your rig doesn't fix a high SWR, It does have it's advantages. As an example my ICOM is hooked up to an 80-10 meter multiband antenna. On 30 meters my SWR is



about 5:1 which is bad. Without the autotuner on, the ICOM cuts my 100 watts output back to about 35 watts to protect the finals. If I use the autotuner my rig will put out a full 100 watts. The modern solid state rigs we have today all will decrease output when it sees a mismatch.

I listen to the guys on 3980 a lot. Don't they have a meeting once in a while?

Yes.... For many years the 3980 group has go together on the second Wednesday of the month at Stan's out in Bear Creek Pike neat the interstate. I think it's a lunch gathering but I hear they show up early. Guys come from all over the state and sometimes from Alabama.

**Remember... No regular June Club Meeting next Tuesday....
We will have the June Meeting at Field Day**



Upcoming VE Testing Sessions

07/01/2023 | **Lebanon** TN 37087-3408
Sponsor: Wilson ARC WC4AR
Location: Wilson EMA Training Room
Contact: Phillip L. Andrews
(615) 449-4923
Email: w8pla@hotmail.com
Time: 4:30 PM (Walk-ins allowed)

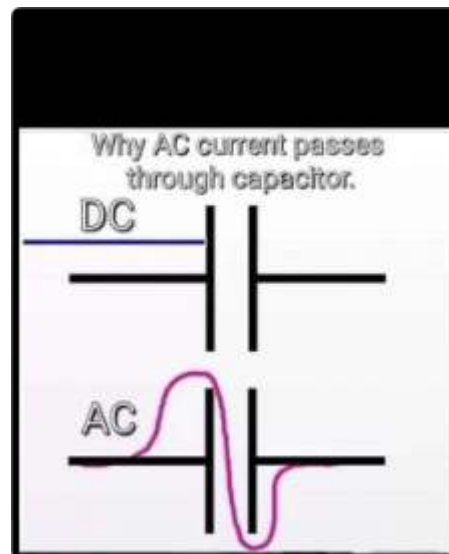
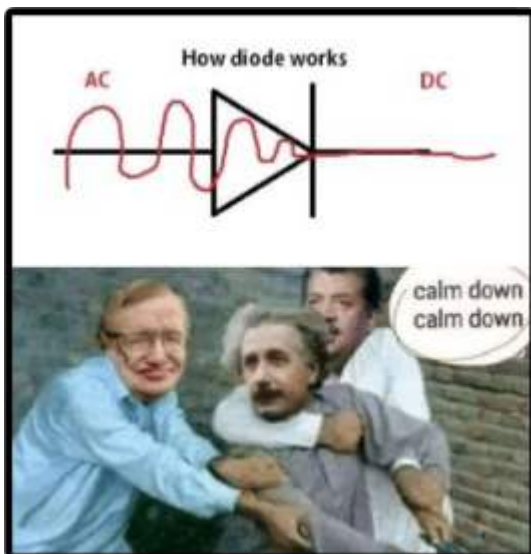


07/08/2023 | **Hohenwald** TN 38462-1987
Sponsor: High Forest ARC
Location: Hohenwald Fire Dept
Contact: Richard A. Mayberry
(931) 306-9098
Email: k4snl2@gmail.com
Time: 9:00 AM (Walk-ins allowed)

08/05/2023 | **Mc Ewen** TN 37101-4702
Sponsor: Three Rates
Location: McEwen City Hall
Contact: Granville S. Chapman
(615) 390-7570
Email: wd4lne@gmail.com
Time: 9:00 AM (Walk-ins allowed)

07/08/2023 | **Murfreesboro** TN 37129
Sponsor: Stones River Amt Club
Location: Rutherford County EOC
Contact: David R. Wilson
(615) 579-3177
Email: david@wwns.com
Time: 10:00 AM (Walk-ins allowed)

08/12/2023 | **Hohenwald** TN 38462-1987
Sponsor: High Forest ARC
Location: Hohenwald Fire Dept
Contact: Richard A. Mayberry
(931) 306-9098
Email: k4snl2@gmail.com
Time: 9:00 AM (Walk-ins allowed)



Nothing like an illustration too make electronics easier to understand!

Upcoming Hamfests

Greater Nashville & Middle TN HamQuest

Saturday July 22 at Wilson Co. Fairgrounds



Huntsville Hamfest at the Von Braun Center



August 19 & 20, 2023 details at <https://hamfest.org/>

700 Monroe St SW, Huntsville, AL 35801

Hours: Saturday 9 AM — 4:30 PM, Sunday 9 AM — 3 PM

Cedars of Lebanon Hamfest

August 26 at Cedars of Lebanon State Park

<http://www.smrclub.com/content/articles/2023-smrc-cedars-lebanon-hamfest>



Ramblings from the editor

I wasn't real active on the bands in May. For one thing, I kept monitoring 6 meters as it usually comes to life around this time. I'd hate to miss an opening! As a matter of fact as I'm sitting here writing this the Icom is on 50.313 listening for FT8. Anyway, I'm trying to work MT and UT which I need to complete the lower 48 states. Of course I still need Alaska and Hawaii but don't expect to ever work those 2 on 6 meters

Antennas drive me nuts!

The first day I caught 6 meters open I got on FT8 and just could not make a contact with my 80-10 meter EndFed antenna. The next day Linda seen me looking up in the trees in the back yard and knew another antenna was going up. I decided to just put up a 40 & 20 meter dipole and go out in the shed and go through the wire pile. I found enough scrap wire and an old dipole center connector that has probably been used 2 or 3 times before. A few years back I ordered 75 feet of RG8X coax on Amazon. It was so cheaply made that I will replace it when I get a chance to get some better coax.

We got the dipole up and the SWR on 20 was perfect but was too high on 40. After all the work putting the antenna up, I left trimming the 40 wires until the next day. I was really tired and had to clean up the 3 redbud trees a cut down to clear space for the antenna lines and wires.

You may be wondering why I put up this antenna since I was wanting to get on 6 meters. Well I have found that a 20 meter antenna tunes just fine on 6 meters. Don't ask me why because antennas are the strangest things. I seem to be getting out good on 6 meters now.

Other than watching 6 meters, about all I've done is a little FT8. I did play in the CQ WPS CW contest but after I did 100 contacts I got lazy and never went back. I can tell you the Ukrainians are still playing ham radio. Seems like I work one in every contest.

I also have a daily sked with an old friend on CW and it has been a challenge with poor band conditions in the mornings. We mostly stay on 40 meters but it just got to bad and switched to 30 meters where it isn't much better. I check QRZ for propagation conditions and everyday it says 40 and 30 Poor. The bands seem to be OK in the evening but it sure is rough during the day.



Speaking of propagation... it's one thing I never could understand and I'm pretty sure I got those exam questions wrong on my exams. To me, if you turn on the rig and hear signals, things are good and if you hear nothing, it's bad so go out and cut the grass.

My second radio...

Was a Knight Kit Ocean Hopper from Allied radio in Chicago. My first radio was a crystal radio I build in a 7th grade shop class. I guess you could say it was the radio that sparked my interest in this crazy radio hobby because I didn't believe that it could work without any batteries.

But it was the Ocean Hopper that really got me (and a few buddies) excited. It was fun listening to Shortwave broadcast stations all over the world with a kit I built myself. I would love to get a look at how bad the soldering was but it worked! It's amazing that we used a 100 watt soldering gun back then.

I think the kit was about \$13. The plug in coils covered everything from way below the AM broadcast band to 30 megacycles. At this time I knew nothing about ham radio but heard guys talking to each other on AM and figured it out. I was about 12-13 when I got this radio and didn't get my ham ticket until I was 16.

After almost 60 years of hamming I still find it fun and often wonder what the next big change in the hobby will be. SSB was just coming in when I got started and all the older hams hated it and preferred AM. Over the years I've played on Pactor, Packet (HF & VHF), PSK31, satellites.... Lot of that stuff has come and gone. I think what I miss most was the 2 meter packet. I had a 2 meter radio on all the time for packet. It was like texting and a lot of fun.

Now FT8 was taken over and I often get think about the next big thing. Do you remember when PSK31 was a big thing? What's gonna be next????? Ohhhh.... Isn't POTA a popular thing today?

73 Bill K4BX

